

Hospitalisation for tuberculosis in the Free State, South Africa

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I declare that this thesis is submitted in accordance with the requirements of the degree Doctor Philosophiae in the Faculty of the Humanities, Department of Sociology at the University of the Free State.

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Dedication

To my mother, Beth, and my late father, Johan.

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Chapter 1 Research problem and design

“It was a cough, apparently a man’s cough, but a cough unlike any that Hans Castorp had ever heard; indeed compared to it, all other coughs with which he was familiar had been splendid, healthy expressions of life – a cough devoid of any zest for life or love, which didn’t come in spasms, but sounded as if someone were stirring feebly in a terrible mush of decomposing organic material”
(Mann, 1924: 12).

“Not for nothing are HIV and TB variously referred to as ‘the terrible twins’ and ‘Bonnie and Clyde’” (Whiteside & Sunter, 2000: 25).

1. Introduction

The year 1982 was the centenary of the discovery of the tubercle bacilli. However, there was little cause for rejoicing. Ten million people around the world suffered from infectious pulmonary tuberculosis (PTB)¹, and a similar number had other forms of the disease. Globally tuberculosis (TB) claimed the lives of at least 3 million people annually. Sombre predictions were made of a vast augmentation in these numbers in following decades if aggressive measures were not taken. That was even before the impact of human immunodeficiency virus (HIV)² infection had to be recognised (Collins, 1991: 1). With the arrival of acquired immune deficiency syndrome (AIDS) TB cases greatly increased. In fact, HIV today represents the greatest risk factor causing TB infection to proceed to active disease. In turn, TB is now the commonest cause of death in AIDS patients worldwide (*TB Focus*, 2000: 1).

In many respects the daunting challenge of the dual TB-HIV/AIDS pandemic is mirrored in the challenges of developing an equitable and efficient hospital sector in the new democratic South Africa. This study is an analysis of the replacement of a longstanding arrangement of hospitalisation for TB in the state-aided hospital sector in South Africa, with a new arrangement in which public hospitals, especially district hospitals³, have to take up this burden. This takes place while both the South African health sector at large and the hospital sector, in particular, are undergoing profound redirection and change.

¹ ‘PTB’, formerly known as ‘consumption’, is caused when tubercle bacilli are inhaled into the lungs and set up primary tubercles. The bacilli sometimes spread from the lungs to the bloodstream setting up millions of tubercles throughout the body (miliary TB) or migrate to the meninges (TB meningitis) (Martin, 1998: 676-677).

² ‘HIV’ is the ribonucleic acid (RNA) retrovirus responsible for AIDS (Geddes & Grosset, 2000: 39). Of the two varieties, HIV-1 and HIV-2, the latter is most common in Africa (Martin, 1998: 305).

³ See Photographs 10-11, 13.

Chapter 1 introduces the notion of social and health systems research on the TB epidemic. It argues that these types of research offer perspectives necessary and useful in approaching disease control. The chapter also describes the nestling of the current research within the ambit of a larger, multidisciplinary and intervention-driven project, i.e. the Joint Free State TB Research Project. Finally, Chapter 1 delineates the research design of the current study against the backdrop of the larger project. A broad socio-economic profile is sketched of the Free State and three study areas where the cumulative research and intervention effort of the Joint Free State TB Research Project was concentrated. The research problem of the current study is specified and the broad methodology, including the attempt to conduct this research in an ethically acceptable manner, is described.

2. The dual epidemic and the need for social and health systems research

In *World Health Report, 1998*, the World Health Organisation (1998: 1) states that the 21st century “offers a bright vision of better health for all. It holds the prospect not merely of longer life, but superior quality of life, with less disability and disease ... the global population has never had a healthier outlook.” The World Health Organisation was emphatic that the most important pattern emerging was an unmistakable trend towards healthier, longer life. The explanation for this was thought to lie in the social and economic advances that the world has witnessed during the late 20th century. Such an optimistic outlook must, however, be tempered by recognition of the harsh reality that, despite increasing life expectancy, two-fifths of all deaths are still considered premature. While life expectancy has risen to 66 years, more than 20 million people around the world annually die before the age of 50. TB, in particular, represents a continued and even growing threat to global health in the 21st century: “For more than 100 years we have been able to use microscopes to detect the bacterium that causes TB. For almost 50 years we have had effective anti-TB drugs. Yet, this year, more people will die of TB than in any other year in history⁴. How can this be?” (World Health Organisation, 1999: 6).

Lung disease is problematic in both industrialised and developing contexts around the world (Small, 1999). Globally, TB is the second leading infectious cause of death. In fact, it ranks only after HIV/AIDS (National Institute of Allergy and Infectious Diseases, 2001: 32). Nevertheless,

⁴ In 1994, the World Health Organisation declared TB, ‘*alone among health concerns*’, a global emergency (Enarson, 2000: S219).

complacency towards TB in the previous three decades led control programmes to be run down⁵ in many countries⁶ resulting in a powerful resurgence of the disease. With the HIV/AIDS pandemic, however, also came a resurgence of interest in research about TB, perhaps more as a result of it's becoming a renewed threat in Western countries than as a result of global philanthropy.

Persons infected with both HIV and *Mycobacterium tuberculosis*⁷ are at much higher risk for developing active TB (Frieden, 1994: 1721; Whiteside & Sunter, 2000: 24). The danger of TB lies therein that, unlike most other opportunistic infections afflicting those with AIDS, and unlike HIV itself, TB is transmitted to others without sustained or intimate contact. In fact, a fleeting contact, such as sitting next to a person with TB in a taxi, may be enough. Viable TB bacilli aerosolised by coughing may remain in the air for hours where perfect immunocompetent persons inhale these organisms and become infected (Farmer, 1997: 348).

The Medical Research Council of South Africa's *National Tuberculosis Research Programme Report* released on World TB Day (24 March 2000), revealed a bleak picture: The TB burden for South Africa was estimated at 600 total cases per 100 000 population⁸, with 273 365 new⁹ cases per annum, of whom 113 945 were infectious and 46.7% also HIV-positive (Fourie & Weyer, 2000). The fifth annual *Global Tuberculosis Control Report* (based on case notifications and treatment outcome data supplied by national control programmes to the World Health Organisation) was released in 2001. The report used six consecutive years of data to assess worldwide progress in TB control. It focused on 23 high-incidence countries that accounted for 80% of all new cases – the so-called 'TB80 group'. The report concluded that progress in TB control remained steady, but slow: "*Despite large numbers of patients recruited in India and South Africa during 1999, DOTS¹⁰ implementation overall was no faster than in*

⁵ In 1990 the Commission on Health Research for Development stated: "*The magnitude of the [TB] problem is matched only by its relative neglect in the international community*" (Hopewell, 2002: 427).

⁶ A possible explanation for this was the greatly reduced clinical and epidemiological importance of TB in the wealthy nations and also the poor results achieved with standard chemotherapy (Van Zyl *et al.*, 1996: 25-26).

⁷ '*M. tuberculosis*' is a complex that includes the pathogenic species *M. tuberculosis*, *M. bovis* and *M. africanum* (Rieder, 1999: 17).

⁸ Mid-2002 the South African population was estimated at 45.5 million and was composed of 78% Africans, 10% whites, 8.6% coloureds, and 2.5% Indians. The population was growing by 2% per annum (Henderson, 2003: 1).

⁹ 'New' TB cases are so defined if the patient has never been treated for TB before, or has been treated for less than four weeks (Balt *et al.*, 1998: 46).

¹⁰ 'DOTS' is the acronym for Directly Observed Treatment, Short-course. "*DOTS is the medical regime that has been developed according to the most advanced scientific insights about the treatment of TB, and it meets the highest biomedical standards*" (Meulemans & Van Ouytsel, 2003). Janse van Rensburg-Bonthuyzen (2003) reported: "*While the necessary infrastructure and technology to effectively combat TB within the PHC system does exist in the Free State, the implementation of the National TB*

previous years. DOTS programmes worldwide will have to increase the number of additional patients enrolled annually by a factor of 2.5 in order to meet 2005 targets” (World Health Organisation, 2001: 2).

While most national TB control programmes have adopted DOTS and its targets for case detection (70%) and treatment success (85%), many countries are (still) faced with growing incidence, escalating spread, patient non-adherence to treatment¹¹, and alarming multidrug-resistant TB (MDRTB¹²) rates. The major constraints faced by countries in their attempt to control TB successfully are the impact of HIV on TB; the threat of MDRTB¹³; and the need to widen the TB care coalition, strengthen health services at community and primary health care (PHC¹⁴) levels, and involve private practitioners.

Notably both HIV and MDRTB¹⁵ are held by social scientists to be linked to ‘*behavioural*’ problems of individuals or groups at particular risk for these disorders (Farmer, 1997: 347). For people with drug-susceptible TB complying with their initial treatment course - provided free of charge by the South African government - the prognosis is good. However, unless people realise the severity of MDRTB, and how much trouble they can save themselves by completing their treatment, MDRTB in South Africa has the potential to wipe out large parts of communities. This is especially because two-thirds

Control Programme at clinic level is fraught with difficulty.” Van der Spoel-van Dyk (2003) (See Photograph 26) was more optimistic: “*The Free State is definitely on the right track with its TB control programme.*” But, DOTS is only one of a range of services that could be offered at the district level in terms of national policy. Others such services include community and home-based care; voluntary HIV confidential counselling and testing (VCCT); syndromic management of sexually transmitted infections (STIs); prevention of mother-to-child HIV transmission (PMTCT) pilots; treatment of opportunistic infections; integrated nutrition programme (INP), etc. (Pillay *et al.*, 2001: 11). In 2003, 95% of TB patients were undergoing DOTS. Supervision was provided by 1 280 community volunteers of whom 1 189 had undergone training for this duty (Free State Department of Health, 2003c: 1).

¹¹ After effective chemotherapy for TB was developed in the middle of the previous century, and was found highly effective if taken correctly, ‘*compliance*’ became the focus: “*Some experts argued that the heart of the problem was patient non-compliance, while others insisted that structural and economic barriers to effective therapy blocked patients from completing treatment*” (Farmer & Nardell, 1998: 1014). According to Meulemans & Van Ouytsel (2003) ‘*compliance is the form of illness behaviour where all the DOTS guidelines are followed in an integrated manner*’. Matebesi & Timmerman (2003) report that in the Free State: ‘*some of the factors affecting treatment compliance include lack of knowledge about TB, non-sustainability of educational campaigns, side-effects of drugs, hunger ... lack of family support, and stigma attached to TB.*’

¹² ‘*MDRTB*’ refers to strains of TB resistant to rifampicin and isoniazid (INH), with or without additional resistance to other TB drugs (Donald *et al.*, 1999: 10). Van der Spoel-van Dyk (2003), warned that the high transmission of TB strains resistant to INH in certain clinics in the Free State, posed a great threat to the provincial TB control programme.

¹³ See Photograph 17.

¹⁴ A good indication of the transformation to a PHC-based health care system in South Africa is that by 1999 patients were much more likely to attend PHC facilities (49%) than hospitals (21%) (Smith *et al.*, 1999: 8).

¹⁵ The revival of interest in TB was also spurred by the emergence of MDRTB. MDRTB is of particular significance to this study, since its safe management requires adequate isolation (hospital-like) facilities (Marshall & Coker, 1997).

of our population already have dormant TB, and in people with HIV, dormant TB becomes active and changes HIV-positive status to full-blown AIDS much faster.

It is estimated that of the thirteen in 1 000 South Africans who will be suffering from active TB by 2004, nine will also be HIV-positive¹⁶ (Integrated Regional Information Network, 2003). In Uganda Nuwaha (1999: 79) stated that increasing numbers of TB mainly due to the HIV epidemic, meant that it was no longer possible to hospitalise all TB cases and that the feasibility of ambulatory treatment needed to be assessed. It has also long been suggested that in view of the enormity of the problems associated with the dual infections of HIV/TB, running parallel vertical programmes for the two epidemics no longer is viable. “*Hospitals and hospices*¹⁷ will be overloaded as many AIDS patients are incapacitated long before their death” (Sunter, 1992: 53).

The impact of HIV on TB incidence in South Africa is a factor that scientists, health workers and policy-makers are still only beginning to appreciate: “*Unfortunately, in most settings almost all the emphasis is placed on strategies addressing the threat of HIV/AIDS, without including [TB] control as part of a comprehensive approach. It is essential that spokespersons for health in governments accept that [TB] is not simply one of the opportunistic infections associated with HIV/AIDS, it is the most important co-infection*” (Fourie & Weyer, 2000). During 1998, 5.8 million people around the world were infected with HIV. This translated to eleven people (men, women, adolescents and children) every minute and 16 000 people per day. The total number of people living with the virus rose by one-tenth to 33.4 million worldwide. More than 90% of these people did not yet know that they were infected (Lachman, 1998: 16). By 1998 the South African government estimated that 3.6 million citizens had contracted HIV, up by more than one-third over 1996. As around the world only about one-third of the people infected since the start of the epidemic had already died, the worst of the epidemic was still to come -. The next decade or so would see the death of the remaining 20 million infected people, as well as millions of people yet to be infected (Lachman, 1998: 16).

¹⁶ HIV infections rose from 5.3 million in 2000 to 7 million in 2003 (Henderson, 2003: 1).

¹⁷ The concept ‘*hospice*’ translates from the Latin ‘*hospitium*’ meaning ‘*place of entertainment*’ (Masson, 1985). Hospices were houses of shelter for travellers in dangerous areas. The earliest and best-known hospices were those in the Swiss Alps instituted for the sake of the pilgrims travelling to and from Rome. The term was subsequently extended to include homes for the destitute and sick.

The Zambian experience with the HIV/AIDS-TB dual epidemic sounds a warning to countries such as South Africa (Blinkhoff *et al.*, 1999). In 1997 the official estimate in Zambia was that more than 1 million adults and children out of a total population of 9 million were infected with HIV. The HIV epidemic in Zambia evoked a massive upsurge in TB. Before 1984, and as far back as 1964, the prevalence of TB in Zambia was relatively stable. Compared to the 7 000 new TB cases of 1984, the 40 000 new cases of 1995 represented almost a six-fold increase. Three-quarters of the new TB cases were attributed to HIV. Apparently the close association between TB and HIV/AIDS was a strong motivator in moving the Zambian health authorities to implement the DOTS system in 1996. This was also prompted by extremely low cure rates for TB at 15-20%, and due to the fact that 80% of the costs of treating TB patients were due to the hospitalisation of patients.

Is South Africa following suit? In the Free State an estimated 480 000 people were HIV-positive in 2003 (Bateman *et al.*, 2004: 9). Research is outstanding to determine how HIV impacts on hospitalisation for TB in the Free State. In 2002, approximately 70% of TB patients treated at the Mselini Hospital in KwaZulu-Natal¹⁸ were HIV-positive, yet the hospital had not adopted a formal approach to treating TB patients in the light of the HIV/AIDS epidemic (*CDC News Updates*, 2002). It is a noted problem that HIV-infected patients with PTB have a lower frequency of spontaneous expectoration and atypical chest radiographs. This makes diagnosis difficult and results in later introduction of treatment, which, in turn, contributes to higher morbidity and mortality and, especially in hospitals, also implies longer periods of transmission (Coelho & Araujo, 2003).

“The magnitude of resistant TB may represent an important new trend in the epidemiology of TB” (Portaels, 2003). The advent of HIV and MDRTB has had sufficient impact to warrant the term, *“the ‘new’ TB”* (Farmer, 1997: 347). Writing in the United States of America, this author cited a cohort study of 171 TB patients, all HIV-negative, to illustrate the salience of multidrug-resistance: *“TB isolates from this cohort were all resistant to isoniazid and rifampicin; most were resistant to three or more first line agents. These patients were treated with an average of over six drugs per person, had a mean hospital stay of over six months, and received, in certain cases, adjunctive surgery. Treatment lasted, on average, over four years. These heroic measures, which often cost more than \$250 000 per patient, yielded an overall response rate of only 56%.”* Hence Farmer's (1997: 348) assertion that the finest medical care in the world could offer no assurance of cure for TB. The

¹⁸ During 2002, KwaZulu-Natal registered 75 929 TB cases. This placed enormous strain on all aspects of the health care system (Hendricks, 2003).

scenario was even worse for those with HIV: HIV-infected persons who fell ill with drug-susceptible TB usually responded excellently to conventional treatment, but those HIV-infected persons who fell ill to drug-resistant strains of TB fared poorly, with seven to nine in ten dead in 4-19 weeks, and with 38-70% of such deaths caused by TB. The danger of MDRTB is exacerbated by the fact that it is passed on to others as a multidrug-resistant strain. Thus, an infected person who never had TB before develops the drug-resistant strain from the onset. Farmer (1997: 348) maintained that, although the two factors central to the 'new' TB were ostensibly biological in nature, they were, in fact, best understood as socio-medical phenomena: "*Arguing that drug resistant TB is a socially produced biological phenomenon should not be controversial, since it refers to the induction of resistance to chemotherapeutic agents recently created by humans. But the rapid spread of HIV among certain populations has also been shaped by social (political, economic, and cultural) processes - the same processes, in part, that led to the emergence of [MDRTB].*"

Rubel & Garro (1992: 1) wrote of TB control that the combined high costs of medication and the difficulties in providing follow-up services enabled more people with active disease to contribute to the reservoir of infection, while those who discontinued treatment often developed increased drug-resistance. A confounding problem was that of lengthy delay before those suffering from TB sought professional attention¹⁹. The authors lamented that despite occasional calls for further research on the social (cultural and behavioural) factors that influence patient adherence, despite the knowledge that non-adherence results in incomplete therapy and drug-resistance, and despite the knowledge that early case-finding²⁰ is essential to break the train of transmission, reasons for patient default and long delays to seek treatment received little study. While there was a large body of socio-medical literature on TB, social scientists had yet to comment on the 'new' TB (Farmer, 1997: 351).

The resurgence of TB is one of the most serious global public health challenges of the 21st century. Nevertheless, Gandy & Zumla (2002: 385) argued that the decline of TB since the 19th century is far better understood than its resurgence over the past twenty years²¹. For the authors insights gained from the historical study of disease may provide a superior analytical framework for understanding

¹⁹ Interestingly, Pronyk *et al.* (2001) found in the then Northern Province in South Africa that delay to seek medical care for TB was shorter among those patients presenting at hospitals than among those presenting at clinics.

²⁰ Not only is case-finding necessary, but so is case-holding. Verkuijl (2003) states: "*In order to improve case-holding local TB control programmes have to take into account the perceptions of patients, their socio-cultural framework, patient-provider relationships and other issues influencing treatment adherence.*"

the contemporary dynamics of disease epidemiology than the current emphasis on the bio-medical and behavioural characteristics of individual patients.

3. The Joint Free State TB Research Project

3.1 TB in the Free State

Addressing the 2000 Annual General Meeting of the South African Tuberculosis Association (SANTA) the Free State Minister (MEC) for Health, Me. Ouma Tsopo²², stated: “In terms of prevalence of tuberculosis this province stands at number three among the nine provinces. Strikingly enough we are also number two in terms of HIV/AIDS. Free State therefore faces a major challenge and we hope we will receive the support of everyone in the country to stem the tide of the terrible twins, HIV/AIDS and TB” (Tsopo, 2000: 2). Although the incidence of TB in the Free State was higher than the national norm over the period 1996-1998, the cure and successful treatment rates for new smear-positive cases in 2000 was also higher (Table 1). Particularly encouraging was that bacteriological coverage had increased from 56% in 1996 to 89% in 2000. This meant that TB was increasingly being diagnosed through microscopy as required by the National TB Control Programme (NTCP) and as recommended by the World Health Organisation.

Table 1 Indicators of TB in the Free State and South Africa, 1996-2000

INDICATOR	YEAR	FREE STATE	SOUTH AFRICA
TB incidence per 100 000 population	1996-1998	338:100 000	254:100 000
Reported cases of PTB	1998	9 084	110 016
Cure rate for new smear-positive cases	1997	49%	57%
	2000	67.8%	57.9%
Successful treatment rate for new smear-positive cases	2000	76.3%	70.6%
Treatment interruption rate	2000	14.8%	14.9%
Treatment failure rate	2000	2.3%	1.8%
Bacteriological coverage	1996	55.6%	-
	2000	89.4%	-
Mean sputum turnaround time in days	1998	8	4
	2000	7	6
MDRTB estimates	1997	5.7:100 000	4.73:100 000

Sources: Compiled from Bamford, 1999; Directorate: Research & Information, 2000; Viljoen *et al.*, 2000.

²¹ As recently as three decades ago, social scientists underestimated the gravity of TB: “In terms of mortality and prevalence rates, [TB] has been reduced from a major to a minor health problem ... it has become a health problem which is easily controlled by chemotherapy” (Williams *et al.*, 1971).

²² See Photograph 27.

3.2 Previous TB-related research by the CHSR&D

TB-related research by the Centre for Health Systems Research & Development (CHSR&D) at the University of the Free State preceding the current Joint Free State TB Research Project is briefly elucidated in respect of two main projects, i.e. the ‘*Contracting-out*’ study and a series of rapid situational analyses of Tb control.

Contracting-out study²³

In 1996 the CHSR&D, on request of the Free State Department of Health, set out to determine within the broader framework of ‘*contracting-out*’, the cost-effectiveness, efficiency and quality of non-governmental and private institutional care for TB patients, as compared to that of the public sector. The Contracting-out study identified and assessed alternative ways of treating TB patients in need of institutional care, and made recommendations towards the future provision of institutional care for patients with TB in the province. The main purpose of the study was to determine whether it was advisable for the Free State Department of Health to continue, renew or enter into new contracts for the hospitalisation of TB patients at NGO/private health care institutions and, if so, on what terms. The central questions addressed were as to what advantages and disadvantages derived from the hospitalisation arrangements of the time and what the implications of considered alternatives were. More specifically the study set out to:

- Determine the advantages and disadvantages, the costs, location and quality of care rendered to hospitalised TB patients in terms of the then contracts/agreements.
- Evaluate the efficiency of the contracts with reference to the distribution of risk, incentives, and the capacity of the Free State Department of Health to develop, negotiate and monitor these contracts.
- Investigate and determine the implications for the Free State Department of Health of alternative ways of treating TB patients in need of hospitalisation and to compare these with that of the existing contracts or possible renegotiated contractual services.
- Make recommendations towards the future provision of institutional care for patients with TB in the Free State.

²³ See Van Zyl *et al.*, 1996.

Methodologically, the Contracting-out study involved several components: literature review; evaluation of existing contract documentation; analysis of the quality of management, nursing care and structural facilities; analysis of clinical decision-making concerning the channelling of patients to private health care institutions, current treatment regimes and quality of care; evaluation of the financial implications of the *status quo* and the various alternative options; evaluation of specialised skills within the Free State Department of Health necessary for the development, negotiation and monitoring of contracts; and analysis of the impact and cost implications of alternative arrangements for institutional care for TB patients. The Contracting-out study found that, while the contractors in general delivered good value-for-money hospital services, almost half of the concerned TB patients were, in fact, hospitalised unnecessarily. The plight of TB patients with reference to their socio-economic circumstances, especially concerning housing and employment, was disclosed as *'desperaté'*. It also emerged that hospitalisation at geographically isolated TB institutions had adverse social affects on most patients. The total contract costs per patient day was found to compare slightly unfavourably with the marginal costs per patient day for the Free State Department of Health to itself render hospitalisation services to TB patients. It was recommended that the major potential for cost saving lay in a shift from intramural to ambulatory care for that half of the patients with uncomplicated primary infection, and a further reduction in the length of stay of the remaining half, e.g. cases of non-adherence to treatment, re-infection and complications.²⁴ Chapter 2 (Paragraph 3.3) reports that the Free State Department of Health did not just lessen the responsibility and funding of the concerned institutions, it actually closed them down.

Rapid situational analyses of TB control

In 2000 the CHSR&D embarked on a series of rapid situational analyses of the Free State TB Control Programme in three health districts of the province, Kopano²⁵, Tshepo²⁶ and Hlanganani²⁷. The rapid situational analyses were conducted in partnership with the Free State Department of Health. Although designed as *'rapid'* analyses, these studies were quite comprehensive in their scope. The range of methodologies employed included analysis of secondary statistics and policy and management documentation, personal interviews with patients, interviews with strategic informants

²⁴ Findings and recommendations of the Contracting-out study that have direct bearing on the current study are discussed in greater detail in Chapter 4, Paragraph 4.

²⁵ See Janse van Rensburg *et al.*, 2000.

²⁶ See Janse van Rensburg *et al.*, 2000a.

²⁷ See Engelbrecht *et al.*, 2000.

in communities and key role players in the health service, and focus group sessions with health workers and DOT-supporters at health care facilities. The rapid situational analyses went on to reveal the status of TB control in the Free State and the problems experienced at the district level.

Although there was only a minor focus on hospitalisation in the rapid situational analyses, a general finding was that the hospitalisation of TB patients was a pertinent problem both at the district level and at the level of specialised hospital care in the province. The referral system was thought to be functioning sub-optimally.²⁸ Only one TB referral hospital was in place in the province, while intermediary hospital services for seriously ill TB patients were lacking. Referral from rural areas was especially problematic. It was mainly due to these observations that the current study was conceptualised as one of the sub-projects of the Joint Free State TB Research Project.

3.3 The current Joint Free State TB Research Project

The Joint Free State TB Research Project is based at the CHSR&D. The project is markedly multidisciplinary in nature and constitutes foci in communication science²⁹, health economics³⁰, health systems research³¹, microbiology³², and sociology of health and health care³³. The project is comprehensive in its scope covering both social and health systems experience related to TB: patterns of adherence to treatment; costs to TB patients and their household; and a diverse range of health system factors, including policy issues, costs incurred by the government, accessibility and availability of services, adequacy of staffing, facility structure, drug and laboratory supply, referral patterns, record keeping, and statistical information and usage. The main purpose of the project is to bring the research community (social and health sciences) and public health services together in devising amelioration in TB control in the Free State.

The project originally emanated from discussions between the director of the CHSR&D and researchers from the University of Antwerp (*Universitaire Instelling Antwerpen* and *Universitaire Faculteiten*

²⁸ Similarly in Gauteng, Edginton (2003) found that of the 1 300 patients diagnosed with TB at the Chris Hani Baragwanath Hospital over an eight-week period in 2001/2, half were 'self-referred' and only 29% referred from clinics in Soweto.

²⁹ See Pauwels, 2003.

³⁰ See Meyer *et al.*, 2003.

³¹ See Janse van Rensburg-Bonthuyzen, 2003.

³² See Rigouts, 2003; Van der Spoel-van Dyk, 2003; Photograph 26.

St Ignatius Antwerpen) and the Prince Leopold Institute of Tropical Medicine. This initiative came to constitute bilateral scientific and technological co-operation with the Flemish co-researchers. In South Africa other partners in the project are the Free State Department of Health and the Department of Medical Microbiology (University of the Free State). The building of partnerships is in accordance with the policy of the NTCP.

4. Research design

4.1 Study areas: overview of socio-demographic and socio-economic conditions³⁴

TB is essentially a disease of poverty. Ninety-five percent of TB cases and 98% of TB deaths are in developing countries³⁵ (Harries & Maher, 1996: 20). Traditionally, once admitted to TB sanatoria, patients were unable to maintain, much less advance, their normal social standing (Williams *et al.*, 1971: 550). The Joint Free State TB Research Project is concentrated in three study areas - the Goldfields, Qwaqwa and Thaba Nchu³⁶ - all of which suffer socio-economic hardship.

Background

Located in the Free State **Goldfields**, Welkom/Thabong is the largest of the three study areas in terms of population size. Welkom/Thabong is situated 153 kilometres north of Bloemfontein. The city celebrated its 50th anniversary in 1997. The city is renowned for the good planning of its infrastructure and road system. In the year 2000, nineteen goldmines were in operation within a radius of 23 kilometres around Welkom/Thabong (Nienaber & Le Roux, 2000: 71). The Goldfields region, with Welkom/Thabong at its core, is the main economic generator of the Free State: “*At the centre of the region lies the vibrant city of Welkom which is busily preparing to change its role from mining town of the past to the region’s new industrial capital of the future*” (Directorate: Spatial Planning, 1997: 56).

³³ See Matebesi & Timmerman, 2003.

³⁴ One of the sub-projects (Van Rensburg & Redelinghuys, 2002) of the Joint Free State TB Research Project conducted ‘*environmental scans*’ of the three study areas. The authors also compared (in some respects) the statistical information of the three study areas to the Free State as a whole. These data were availed to all other subprojects to enable broader socio-economic analysis. In the current study Tables 221 reflect data forthcoming from the environmental scans.

³⁵ The burden of TB is highest in developing countries and also among sub-populations with characteristics of socio-economic deprivation, e.g. homelessness, drug abuse or absolute poverty (Kamolratanakul *et al.*, 1999: 599).

³⁶ See Photograph 2.

The former administrative capital of **Qwaqwa** in the highland area of the eastern Free State, Phuthaditjhaba, is located 50 kilometres south of Harrismith and 339 kilometres east of Bloemfontein. In terms of the former 'homelands' policy, the city was described as '*the more successful of the industrial growth points*' (Directorate: Spatial Planning, 1997: 68). Forming part of the '*jumble of great pillars and koppies*³⁷ between Golden Gate and Mont-aux-Sources', the picturesque Phuthaditjhaba was formerly known as Witsieshoek, named after Chief³⁸ Whetse who set up in the area with clansmen of the Kgolokwa tribe (Coulson & Clarke, 1983: 229).

The town of **Thaba Nchu** (smallest of the three study areas in terms of population size) is located 64 kilometres east of Bloemfontein below the Thaba Nchu Mountain (Directorate: Spatial Planning, 1997: 74). During the homelands era Thaba Nchu was incorporated into Bophuthatswana. It is one of the oldest settlements in the Free State. It is here where the '*Voortrekkers*³⁹ stood over in 1836 during their '*Great Trek*' and took major decisions that would influence the future of Afrikaners (Nienaber & Le Roux, 2000: 35). Today it is an almost exclusively African settlement.

Population

In 2000, Qwaqwa and Thaba Nchu had almost exclusive black populations (Table 2). The proportions of the black population in relation to other population groups were much higher in Qwaqwa (99.9%) and Thaba Nchu (99%) than in the Goldfields (83%) and the Free State as a whole. The proportion of Asians in the whole province was negligible, as were the proportions of coloureds and whites in Qwaqwa and Thaba Nchu.

³⁷ A '*koppie*' in South Africa is the name for a hillock or knoll (*Reader's Digest Association South Africa*, 1993: 270).

³⁸ '*Chief*' is the term traditionally denoting the African aristocracy. These chiefs symbolised their authority through wearing the accoutrements of power and through the functioning of chiefly courts and assemblies: "*Chiefs were entitled by custom to display, mobilize, and increase their wealth through the acquisition of many wives and large herds of cattle*" (Ember & Ember, 2001: 2053).

³⁹ The '*Voortrekkers*' were the mostly Dutch-speaking people who undertook the '*Great Trek*' from the southern to the northern parts of South Africa around 1836 (Schoonees *et al.*, 1973: 1020).

Table 2 Populations of the study areas and the Free State (n and %), 2000

STUDY AREA	BLACK	COLOURED	ASIAN	WHITE	TOTAL
Goldfields	374 297 (83)	8 863 (2)	387 (0.1)	66 629 (15)	450 176 (100)*
Qwaqwa	303 317 (99.9)	238 (0.1)	151 (0.1)	75 (0.0)	303 781 (100)
Thaba Nchu	76 433 (99)	291 (0.4)	83 (0.1)	401 (0.5)	77 208 (100)
Free State	2 223 940 (85)	79 039 (3)	2 806 (0.1)	316 457 (12)	2 622 242 (100)**

* Where percentages do not add up exactly to 100 in Tables 2-20 this is due to rounding off to the nearest whole figure.

** Mid-2002 estimates for the Free State by Statistics South Africa put the population size at 2 859 081. The province had an estimated annual growth rate of 1.12% (Henderson, 2003: 4).

Source: Van Rensburg & Redelinghuys, 2002.

Gender distribution

On the one hand, the gender distribution in the Free State in 2000 was fairly even with a 51:49 ratio in favour of female. In Thaba Nchu a ratio of 52:48 favoured female, and in Qwaqwa a ratio of 54:46 did so even more strongly (Table 3). In both these study areas this tendency could be attributed to significant emigration of men due to lack of local employment opportunity. On the other hand, the Goldfields' distribution of 44:56 was strongly in favour of males. In this study area significant immigration of men takes place in order for them to exploit better employment possibility. Many of these men flock to the Goldfields from places such as Qwaqwa and Thaba Nchu. This remains the tendency regardless of the dwindling and ostensibly diminishing fortune of the gold mining industry.

Table 3 Gender distributions in the study areas and the Free State (n and %), 2000

STUDY AREA	MALE	FEMALE	TOTAL
Goldfields	250 325 (56)	201 967 (44)	452 292 (100)
Qwaqwa	138 698 (46)	165 944 (54)	304 642 (100)
Thaba Nchu	36 831 (48)	40 624 (52)	77 455 (100)
Free State	1 298 349 (49)	1 335 157 (51)	2 633 506 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Age distribution

The Free State's overall age distribution in 2000 primarily represented people younger than 35 years (70%) (Table 4). While this age cohort was proportionally smallest in the Goldfields (64%), this study area simultaneously accommodated the largest proportion (71%) of people aged 15-64 years (broadly the economically-active life stage).

Table 4 Age distributions in the study areas and the Free State (n and %), 2000

AGE	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
<1 year	8 070 (2)	6 370 (2)	1 371 (2)	48 418 (2)
1-4 years	30 775 (7)	28 020 (9)	6 250 (8)	202 674 (8)
5-14 years	76 583 (17)	80 290 (27)	17 223 (23)	569 184 (22)
15-34 years	169 829 (38)	115 706 (38)	28 479 (37)	980 664 (38)
35-49 years	113 549 (25)	38 741 (13)	12 416 (16)	464 780 (18)
50-64 years	37 738 (8)	19 299 (6)	6 866 (9)	219 983 (8)
≥65 years	11 751 (3)	13 449 (5)	4 097 (5)	118 643 (5)
Total	448 295 (100)	301 875 (100)	76 702 (100)	2 604 346 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Rural-urban distribution

In 2000, in the Free State seven in ten people (71%) resided in an urban environment (Table 5). Thereupon, 85% of Qwaqwa's population and more than half of Thaba Nchu's (52%) resided in rural environments. Conversely, the Goldfields, even far more so than the Free State at large, had a predominantly urban population (82%).

Table 5 Rural-urban distributions in the study areas and the Free State (n and %), 2000

RURAL/URBAN	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
Rural	81 255 (18)	26 712 (86)	40 353 (52)	826 853 (31)
Urban	371 038 (82)	41 930 (14)	37 102 (48)	1 806 651 (69)
Total	452 293 (100)	304 642 (100)	77 455 (100)	2 633 504 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Income

Poor economic circumstances, as reflected in low household and per capita income, is an important socio-economic variable impacting on susceptibility to and prevalence of TB. The population of Qwaqwa in 2000 was worse off in terms of annual household income than that of the rest of the Free State (Table 6). Close to one-quarter (21%) of the Qwaqwa population reported having no income at all, whereas this proportion was 13% for the Free State generally. More households in Qwaqwa also fell into the lower income categories than in the other two study areas. In Qwaqwa, 58% of households earned less than R6 001 per annum, while in the Goldfields and Thaba Nchu respectively 36% and 43% of households resorted in this income category. On the other side of the spectrum, the Goldfields had a far higher number of households earning more than R30 000 per annum (24%) than Qwaqwa (9%), Thaba Nchu (14%), and the Free State at large (17%).

Table 6 Annual household incomes in the study areas and the Free State (n and %), 2000

STUDY AREA	NONE	≤R2 400	R2 401 - R6 000	R6 001 - R12 000	R12 001 - R18 000	R18 001 – R30 000	≥R30 001	TOTAL
Goldfields	12 898 (14)	7 829 (8)	12 479 (14)	14 149 (15)	13 346 (15)	9 643 (10)	220 369 (24)	92 380 (100)
Qwaqwa	13 665 (21)	8 239 (12)	16 484 (25)	10 949 (15)	6 461 (10)	4 549 (7)	5 880 (9)	66 227 (100)
Thaba Nchu	9 891 (13)	9 891 (13)	13 536 (17)	13 549 (17)	10 808 (14)	9 796 (13)	11 016 (14)	78 487 (100)
Free State	329 248 (13)	275 757 (11)	487 663 (20)	442 034 (18)	281 783 (11)	231 541 (9)	433 459 (17)	2 481 485 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Given the above, as is to be expected, the bleak household economy in Qwaqwa was also mirrored in lower monthly per capita income, since 78% of people in Qwaqwa reported receiving no monthly income (Table 7). The corresponding proportion for the Free State was 64%. In Thaba Nchu, 69% of the population, reportedly, did not earn any income. Both Qwaqwa and Thaba Nchu were marked by greater poverty than was the case in the whole of the Free State. Individual income earners in the Goldfields were generally substantially better off. In the Free State only 10% of people earned at least between R1 001 and R3 500 per month, while almost one in five people (19%) in the Goldfields fell in this category.

Table 7 Monthly per capita incomes in the study areas and the Free State (n and %), 2000

STUDY AREA	NONE	≤R1 000	R1 001-R3 500	R3 501-R8 000	≥R8 001	TOTAL
Goldfields	236 069 (56)	88 414 (21)	78 628 (19)	5 911 (4)	3 011 (1)	422 033 (100)
Qwaqwa	23 770 (78)	45 391 (16)	13 341 (5)	3 197 (1)	373 (0.1)	286 072 (100)
Thaba Nchu	49 173 (69)	14 250 (20)	6 471 (9)	991 (1)	130 (0.2)	71 015 (100)
Free State	1 557 685 (64)	549 736 (23)	249 522 (10)	68 628 (3)	14 934 (1)	2 440 505 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Employment

The employment status of people in the Goldfields was more positive than that in the other study areas and the whole of the Free State (Table 8). More than half of the people in the Goldfields were employed compared to 21% and 31% in respectively Qwaqwa and Thaba Nchu and 41% in the Free State. In Qwaqwa 49% of people were not working for reasons such as retirement, being a housewife or a student, or being disabled. In both the other areas and in the province at large much less people resorted in this category - 25% in the Goldfields, 39% in Thaba Nchu, and 37% in the Free State. Nevertheless, the number of unemployed people in the Goldfields seeking employment (18%) was

substantial. In the Free State, almost one in five people (17%) fell in this category. Seen as such it seems that the gold mine industry did not really constitute the employment panacea it was credited to be.

Table 8 Employment statuses in the study areas and the Free State (n and %), 2000

EMPLOYMENT STATUS	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
Employed	167 375 (53)	39 765 (21)	11 712 (31)	714 787 (41)
Unemployed – looking for work	58 259 (18)	46 998 (25)*	12 041 (24)	303 538 (17)
Unemployed – not looking for work	7 984 (3)	-	1 405 (3)	45 919 (3)
Not working -housewife/retired/student/disabled	81 538 (25)	93 947 (49)	19 520 (39)	646 573 (37)
Not working – none of the above	4 491 (15)	9 425 (5)	1 540 (3)	49 337 (3)
Total	321 647 (100)	190 105 (100)	50 218 (100)	1 760 154 (100)

* Includes people unemployed, but not looking for work.

Source: Van Rensburg & Redelinghuys, 2002.

Education

While in 2000, 15% of people in both the Goldfields and Thaba Nchu did not undergo any schooling, almost one-quarter (24%) in Qwaqwa were unschooled (Table 9). While educational level in the former study areas was similar to that of the Free State as a whole, in the latter educational level was generally lower than the norm in the province. Lower levels of education, such as those in Qwaqwa, might be to the detriment of efforts towards education and awareness about TB, as well as the treatment and management of the disease.

Table 9 Education levels in the study areas and the Free State (n and %), 2000

QUALIFICATION	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
No schooling	57 017 (15)	62 412 (24)	10 238 (15)	439 450 (19)
Grade 0-6	107 621 (29)	96 385 (37)	21 912 (32)	910 203 (40)*
Grade 7-11	164 428 (44)	77 831 (30)	27 738 (41)	641 311 (28)**
Grade 12	36 815 (10)	20 168 (8)	6 182 (9)	213 698 (9)
Grade 12 and certificate/diploma	8 932 (2)	3 716 (1)	1 879 (3)	39 456 (2)
Grade 12 and degree	2 828 (1)	1 277 (0.5)	2 360 (4)	22 001 (1)
Total	377 641 (100)	261 789 (100)	68 185 (100)	2 266 119 (100)

* Free State – Grade 0-7

** Free State – Grade 8-11

Source: Van Rensburg & Redelinghuys, 2002.

Housing

The number of people living in an informal settlement in 2000 was equally low in Thaba Nchu and Qwaqwa at 10% (Table 10). In the Goldfields this figure was three-and-a-half times as high at 35%.

While half (50%) of the Free State's population and just more than half (51%) of the Goldfields population (51%) lived in formal dwellings on separate stands, this was the case for close nine in ten residents in Qwaqwa and Thaba Nchu (both 87%). Less congestion in these areas probably reflect the spaciousness of their rural surroundings rather than comparatively better ability to acquire land.

Table 10 Types of housing in the study areas and the Free State (n and %), 2000

DWELLING	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
House on separate stand	197 742 (51)	261 154 (87)	64 461 (87)	1 637 699 (50)
Flat/cluster/unit in retirement village	11 811 (3)	3 274 (1)	476 (1)	71 945 (2)
House/flat/room in backyard	24 056 (6)	4 408 (2)	4 408 (3)	906676 (28)
Informal dwelling	137 975 (35)	29 687 (10)	7 220 (10)	650816 (20)
Caravan/tent	284 (0)	51 (0)	18 (0)	1668 (0)
None/ Homeless	18 395 (5)	330 (0)	8 (0)	502 (0)
Total	390 263 (100)	298 904 (100)	74 120 (100)	3 269 306 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Water

A much larger population in the Goldfields (87%) received piped water on site or in their dwellings in 2000, compared to only 16% in Thaba Nchu and 22% in Qwaqwa (Table 11). In the Free State 39% of people received water on site. In Qwaqwa (81%) and Thaba Nchu (74%) much larger proportions relied on public taps than was the case in the Goldfields (12%). In the Free State, in general, 56% of people relied on public taps. Qwaqwa and Thaba Nchu were in a more vulnerable position than the Goldfields as far as the provision of piped water was concerned. In these study areas larger numbers of people did not have on-site access to treated water.

Table 11 Water supply in the study areas and the Free State (n and %), 2000

OBTAINED FROM	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
Piping on site or in dwelling	379 345 (87)	49 365 (16)	16 624 (22)	1 005 730 (39)
Public tap	52 519 (12)	247 231 (81)	56 645 (74)	1 442 098 (56)
Water carrier/well	4 203 (10)	5 494 (2)	2 809 (4)	108 244 (4)
Dam/river/stream/spring	170 (0)	456 (0)	233 (0)	25 969 (1)
Other	2 002 (10)	1 225 (0)	744 (1)	16 927 (1)
Total	438 239 (100)	303 777 (100)	77 055 (100)	2 598 968 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Electricity

While in 2000 only 17.5% of people in Qwaqwa were supplied with electricity, the corresponding proportion for the Free State was 58% (Table 12). Consequently large numbers of Qwaqwa's population (78%) relied on candles as their main means of lighting. As this study area is bitterly cold

in winter, conceivably many people made use of open fire to heat their homes. Both the Goldfields (80.1%) and Thaba Nchu (73.1%) had much larger contingents of people supplied with electricity.

Table 12 Electricity supply in the study areas and the Free State (n and %), 2000

ELECTRICITY/ENERGY SUPPLY	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
Electricity directly from authority	350 278 (80)	51 588 (17)	55 907 (73)	1 514 766 (58)
Electricity from other source	487 (0.1)	1 418 (0.5)	85 (0.1)	8 370 (0.3)
Gas	540 (0.1)	467 (0.2)	228 (0.3)	5 502 (0.2)
Paraffin	18 557 (4)	12 765 (4)	4 542 (6)	169 842 (7)
Candles	68 311 (16)	237 128 (78)	16 277 (21)	897 363 (35)
Other	25 (0)	0 (0)	0 (0)	213 (0)
Total	438 198 (100)	303 366 (100)	77 039 (100)	2 596 056 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Sanitation

While almost half (45%) the Free State population in 2000 had waterborne and/or chemical toilets, this type of facility was availed to only 12% and 21% of the populations in respectively Qwaqwa and Thaba Nchu (Table 13). Once again the Goldfields was much better off with almost three-quarters (73%) of the population utilising a waterborne and/or chemical sewerage system. In both Qwaqwa (86%) and Thaba Nchu (56%) reliance was largely on pit latrines. This was a more negative situation than for the Free State as whole (26%), and was indicative of low development levels in these two largely rural study areas.

Table 13 Toilet facilities in the study areas and the Free State (n and %), 2000

FACILITY	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
Waterborne/chemical	320 218 (73)	37 791 (12)	16 347 (21)	1 140 324 (45)
Pit latrine	17 001 (4)	260 585 (86)	42 200 (55)	687 165 (26)
Bucket latrine	64 285 (15)	1 314 (0)	14 932 (19)	561 245 (22)
Other	37 205 (9)	4 164 (1)	3 576 (5)	212 264 (8)
Total	438 709 (100)	303 854 (100)	77 055 (100)	2 600 998 (100)

Source: Van Rensburg & Redelinghuys, 2002.

Refuse disposal

In 2000, the large majority of people in the Goldfields (85%) had their refuse disposed of by local authorities, while this was the case for only 12% of people in Qwaqwa and 36% in Thaba Nchu (Table 14). In the Free State as a whole, 64% of people had their refuse removed by the authorities. On the other hand 80% of Qwaqwa and 53% of Thaba Nchu's people relied on their own or communal refuse dumps for refuse disposal, compared to 30% in the Free State. In both Qwaqwa

(8%) and Thaba Nchu (10%), about one in ten people seemingly did not access any refuse removal system whatsoever.

Table 14 Refuse disposal in the study areas and the Free State (n and %), 2000

METHOD OF DISPOSAL	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
Removed by local authority	367 991 (85)	34 725 (12)	27 769 (36)	1 649 201 (64)
Communal/own refuse dump	51 709 (12)	242 947 (80)	40 717 (53)	785 406 (30)
No source of refuse removal	14 496 (3)	24 402 (8)	7 715 (10)	144 601 (6)
Other	95 (0)	104 (0)	5 (0)	1 333 (0)
Total	434 291 (100)	302 178 (100)	76 206 (100)	2 580 541 (100)

Source: Van Rensburg & Redelinghuys, 2002.

4.2 Study areas: overview of health and disease

The rate of change in people's reproductive behaviour, and the accompanying fertility decline, is crucially important in sub-Saharan Africa and Africa. Among the SADC countries only South Africa and Zimbabwe have total fertility rates of less than five children per women of childbearing age (15-49 years). Skweyiya (2003: x) stated the following reasons for this positive situation in South Africa: higher levels of literacy than other sub-Saharan countries; and improving standards of living with increased access to social services, clean drinking water, electricity, and health and education services. Overall fertility has declined in South Africa, yet high levels of childbearing still are a demographic reality in certain segments of the population. South African population policy expresses concern about '*the reduction of human development potential influenced by the high incidence of unplanned and unwanted pregnancies and teenage pregnancies*' (Skweyiya, 2003: ix). Teenage childbearing is of great concern in South Africa. The majority of teenage pregnancies are neither planned nor wanted. The father seldom acknowledges or takes responsibility for financial, emotional and practical support of the child. The mother often leaves school, thus curtailing her personal development. She becomes exposed to poverty, exploitive and violent sexual relationships, and diminished career opportunities. Teenage pregnancy is the most important reason for leaving school. Will HIV/AIDS fast track the downward trend in fertility rates in South Africa? For the following reasons Skweyiya answers affirmatively: more women die young before the completion of their reproductive years, AIDS reduces fecundity, and condom use as a result of public education about the prevention of HIV infection will further reduce fertility.

On average, the fertility rates for the Free State in 2000 stood at a relatively low 2.3 children per woman in the childbearing age group (Table 15). While a large number of women in Qwaqwa (34%) had not (yet) given birth, the women who had children tended to have a larger number than those in the Free State as a whole and the other two study areas. In fact, 17% of women in Qwaqwa had seven or more children, compared to 11% in the Goldfields, 13% in Thaba Nchu and 14% in the Free State.

Table 15 Number of children ever born per woman in the study areas and the Free State (n and %), 2000

STUDY AREA	0	1-2	3-5	≥6	TOTAL
Goldfields	27 355 (22)	45 550 (37)	37 058 (30)	12 720 (11)	122 683 (100)
Qwaqwa	37 877 (34)	30 339 (28)	22 692 (21)	19 155 (17)	110 063 (100)
Thaba Nchu	6 678 (26)	9 023 (35)	6 628 (26)	3 291 (13)	25 620 (100)
Free State	254 659 (29)	276 968 (32)	222 083 (25)	119 835 (14)	873 545 (100)

Source: Van Rensburg & Redelinghuys, 2002.

With reference to the age of the mother when the first child was born, Van Rensburg & Redelinghuys (2002) indicated that women in all three the study areas, as well as in the Free State at large, had their first child while still very young (Table 16). Qwaqwa had a slightly higher rate of teenage pregnancies than the other areas and the Free State as a whole, with 40% of women having their first child between twelve and nineteen years, compared to 38% in the Goldfields and the Free State at large and 36% in Thaba Nchu.

Table 16 Mothers' age at birth of first child in the study areas and the Free State (n and %), 2000

STUDY AREA	12-14	15-19	20-29	30-49	TOTAL
Goldfields	2 228 (2)	33 479 (36)	51 680 (56)	5 078 (5)	92 465 (100)
Qwaqwa	1 864 (3)	22 843 (37)	33 034 (54)	61 224 (6)	118 965 (100)
Thaba Nchu	364 (2)	5 890 (34)	9 760 (57)	17 082 (6)	17 082 (100)
Free State	16 503 (3)	187 486 (35)	296 959 (55)	35 014 (7)	535 962 (100)

Source: Van Rensburg & Redelinghuys, 2002.

With reference to mortality per age group, the Goldfields had an alarming high number of infant deaths, compared to the other two areas and the Free State (Table 17). Almost one-third (31%) of deaths in the Goldfields occurred before the child turned one year old, compared to around one in ten infant deaths in Qwaqwa (8%) and Thaba Nchu (12%).

Table 17 Mortality per age group in the study areas (n and %), 2000

AGE	GOLDFIELDS	QWAQWA	THABA NCHU
<1 year	135 (31)	54 (8)	47 (12)
1-5 years	30 (3)	26 (4)	15 (3)
6-15 years	9 (1)	11 (2)	3 (1)
16-30 years	166 (17)	110 (17)	62 (15)
31-45 years	312 (31)	188 (29)	107 (27)
46-65 years	218 (22)	151 (23)	86 (21)
≥65 years	129 (13)	105 (16)	82 (20)
Total	999 (100)	645 (100)	402 (100)

Source: Van Rensburg & Redelinghuys, 2002.

In 2000, infectious and parasitic diseases were the main cause of mortality in all of the Goldfields (28%), Qwaqwa (37%) and Thaba Nchu (31%) (Table 18). Circulatory and respiratory diseases followed closely as the second most prominent cause of death in all three these areas. No doubt PTB contributed greatly to these numbers. In fact, by 2003 respiratory infections was the leading cause of death in the Free State (Bateman *et al.*, 2003: 10).

Table 18 Ranking of the causes of death in the study areas (n and %), 2000

GOLDFIELDS		QWAQWA		THABA NCHU	
Infectious and parasitic	258 (28)	Infectious and parasitic	228 (37)	Infectious and parasitic	126 (31)
Circulatory system	210 (23)	Circulatory system	114 (19)	Ill defined conditions	82 (20)
Respiratory system	152 (16)	Respiratory system	95 (15)	Circulatory system	52 (13)
All other diseases	305 (33)	Endocrine system	51 (8)	Respiratory system	41 (10)
-	-	All other diseases	130 (21)	All other diseases	94 (23)
Total	925 (100)	Total	645 (100)	Total	405 (100)

Source: Van Rensburg & Redelinghuys, 2002.

TB morbidity

TB morbidity in the Free State in 2000 was not spread evenly across the age groups (Table 19). In all three the study areas it affected the age groups 15-49 years (61%) and 20-39 years (29%) most heavily. It was probably safe, then, to describe TB as a disease of those in their early and middle adulthood and primarily those in their economically active life stage.

Table 19 TB per age group in the study areas and the Free State (n and %), 2000

AGE	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
≤14 years	9 (1)	4 (1)	16 (4)	101 (2)
15-19 years	34 (4)	19 (4)	13 (4)	292 (5)
20-39 years	504 (55)	327 (65)	209 (57)	3 391 (61)
40-59 years	361 (39)	132 (26)	114 (31)	1 609 (29)
≥60 years	15 (2)	18 (4)	18 (5)	151 (3)
Total	923 (100)	500 (100)	370 (100)	5 544 (100)

Source: Van Rensburg & Redelinghuys, 2002.

With regard to the type of TB in the three study areas, PTB accounted for more than 80% of registered TB cases in 2000 (Table 20). This was also the case in the Free State as a whole, where 82% of cases were PTB. The incidence of primary TB was lower in Qwaqwa (3%) than in the Goldfields (7%) and Thaba Nchu (9%). Thaba Nchu had a lower number of 'other' TB cases (6%) than the Goldfields (13%) and Qwaqwa (12%)

Table 20 Types of TB in the study areas and the Free State (n and %), 2000

TYPE	GOLDFIELDS	QWAQWA	THABA NCHU	FREE STATE
Pulmonary	1 601 (81)	1 188 (85)	498 (84)	8 705 (82)
Primary	133 (7)	36 (3)	54 (9)	687 (7)
Other	248 (13)	173 (12)	38 (6)	1 199 (11)
Total	1 982 (100)	1 397 (100)	590 (100)	10 591 (100)

Source: Van Rensburg & Redelinghuys, 2002.

What types of public health facilities take up the burden for TB care in the Free State? In 2000 it was clearly fixed PHC clinics⁴⁰ (Table 21). Negligible numbers of TB patients attended mobile clinics.

Table 21 TB patients per type of clinic in the study areas and the Free State (n), 2000

STUDY AREA	FIXED	MOBILE	TOTAL
Goldfields	2 353	8	2 361
Qwaqwa	1 607	6	1 613
Thaba Nchu*	545	0	545

Source: Van Rensburg & Redelinghuys, 2002.

4.3 Problem statement

Discordance exists as to whether hospitalisation for TB in the multitude of forms it took historically really has been beneficial in the fight against the epidemic. Hospitalisation of TB patients inevitably

implies their isolation from society and this raises questions as to the necessity, the morality, and also the effectiveness of this practice. Therefore the first research question that is addressed in Chapter 2: **How may the historic role of the hospital in TB control be described, and what social critique has been levelled towards this institution?**

No doubt changing health care policy in the South African health care system impacts on hospitals and on hospitalisation for TB. PHC and the district health system (DHS) are progressively becoming characteristic of health care in South Africa. The association between hospitals and PHC is somewhat awkward and the question as to exactly what role hospitals have in PHC is often posed. The question is also often pondered as to how hospitals may be '*functionally integrated*' into the DHS. More specifically, South Africa's experience of public sector hospitalisation for TB is limited. Traditionally, most TB patients have been hospitalised in NGO and private settings. In the Free State, at least, the historical situation is being reversed with the halting of state-aided private and NGO hospitalisation for TB and the institutionalisation of such patients in public district hospitals and at a new MDR-unit located at a district hospital. The second research question thus arises and is addressed in Chapter 3: **What is the nature and impact of broader health sector reform on TB hospital policy and the emergence of district hospitals' and the MDR-unit's role in the management of TB patients?**

Ever since the early 1980s, health policy making around the world has been taking place in resource-thin, contracting environments. In Jamaica, for example, instead of trying to develop methods for rationing health care in order to plan for contraction, policy makers reacted to economic constraints by making '*administrative adjustments*' like the closing of hospitals (Cumper cited in Walt 2000: 207). In the Free State the recent history of hospitalisation for TB may be succinctly described in terms of three hospital closures:

- The history of hospitalisation for TB in the Free State began in all earnest in 1953 with the opening of Santoord Hospital⁴¹ (also known as the Claudius Brink TB Centre) 20 kilometers north of Thaba Nchu. Belonging to the South African National Tuberculosis Association (SANTA), this facility was closed in 2002.

⁴⁰ See Photographs 22-25.

⁴¹ See Photographs 3-6.

- In 1979 Allanridge Chest Hospital⁴² in Allanridge, 30 kilometers north of Welkom/Thabong, commenced service. The hospital was owned by Lifecare Group Holdings and was terminated in 1999.
- In 1984 Poloko Sanatorium⁴³ was established in Thaba Nchu. Reportedly, first owned by Lifecare and later operated as a public-private partnership of the Bophuthatswana health authority, the sanatorium ceased operation in 1997.

NGO sector hospitalisation for TB in the Free State has thus been eliminated. Barring a very small proportion of TB patients who can afford medical insurance and care in general private hospitals, private sector hospitalisation for the disease is also something of the past. The cumulated roles of the former NGO and private hospitals have now been taken over by public hospitals. District hospitals – already heavily burdened with HIV/AIDS-related patient loads - now stand at the forefront of intramural care for TB. These dramatic events stimulated the third research question that is the subject of Chapter 4: **How may the declining practice of intramural care for TB patients in state-aided private and NGO hospitals in the Free State be assessed?**

Among the communicable diseases, TB is one of the most perilous. In Maher *et al.* (2001: 30) the World Health Organisation explicated the necessity of secondary care for TB stating that such care should enable the diagnosis and treatment of common HIV-related diseases, including sputum smear-negative PTB and extra-pulmonary TB. Diagnosis of these conditions require investigations, such as X-ray and biopsy, usually only available at secondary level. At the tertiary level, measures for the diagnosis and treatment of complications of common HIV-related diseases should include specialised management of complicated forms of TB such as peritoneal and pericardial TB. There is little doubt that the World Health Organisation is in favour of hospitalisation for TB under certain circumstances. However, the World Health Organisation seemingly does not judge special hospital wards for TB patients necessary, but encourages the location of TB beds in specific areas of hospitals, as this could simplify the management of patients, including the full supervision of their chemotherapy. But for the World Health Organisation the need for supervision of chemotherapy, in itself, does not justify hospitalisation. Supervised ambulatory chemotherapy, it is stated, should be organized as the first priority in national TB programmes.

⁴² See Photographs 7-8.

However, frontline health workers and their managers may view the necessity and ideal operation of TB-related hospitalisation differently than the World Health Organisation. And, again, health care providers at the district, provincial and national levels may adopt dissimilar stances in regard of this issue. Chapter 5 contemplates the fourth research question: **How may hospital policy and institutional arrangements for the hospitalisation of TB in the Free State be appraised from the perspective of health workers and managers?**

The need to consider the patient's perspective in disease management is often stressed in the literature. It is argued that disease management adds value only if patients' specific problems and their individual experience living with a chronic condition are taken into consideration. The challenge for provider organisations is to find practical ways to implement standard guidelines with the flexibility to tailor care plans to the needs of individual patients. Measuring and analyzing patient-centred outcomes can help meet the challenge (Roughan & White, 2001: 2). Thus, the fifth research question to which Chapter 6 attempts to provide an answer: **How do TB patients themselves experience hospitalisation in the Free State?**

Providing answers to each of the above-mentioned research questions constitute the aims of the current study.

4.4 Data collection, presentation and validation

Data collection

The design of the current study is '*descriptive and exploratory*'. The study makes use of both qualitative and quantifiable data. A wide range of methods was used to collect data and the subject was examined with different sources of evidence from various angles. This is called '*triangulation*' (Baker, 1994: 31-32). As regards the specific methods, literature and policy studies were mainly employed to answer the first three of the research questions stipulated in Paragraph 4.3. The fourth and fifth research questions were addressed through the application of survey research techniques comprising self-administered questionnaires and face-to-face interviews. **Take note:** Details of the techniques used to gather the empirical data reflected in Chapters 5 and 6 are presented in these chapters.

⁴³ See Photographs 9-9a.

Here it is important to state that the opportunity to conduct this fieldwork derived from the researcher's participation in the Joint Free State TB Research Project. In order to control costs and to steer the larger Joint Free State TB Research Project towards its objectives, the fieldwork took place in a co-ordinated manner. Both data gathering and research feedback were done in a way involving most of the sub-projects simultaneously and in terms of the set phases of the larger project. The larger project was also conducted in accordance with the stipulations of the contracts with the funders over the period 2001-2003. Perhaps the most important of these requirements was the need to conduct the research in collaboration with the Free State Department of Health and to sufficiently provide feedback to the Department.

Data presentation

Three groups of descriptive statistics (Graziano & Raulin, 1989: 87) were employed to simplify and organise the data:

- Frequency counts and (univariate) frequency distributions were used to present most of the nominal and ordinal data.
- Graphical representations in the form of frequency polygons or bar charts, as well as pie charts were used to clarify data sets.
- Summary statistics used mainly took the form of the mean and the range.

Validation

Validation of the results of the current study took place via fourteen presentations: seven at district level⁴⁴, two at provincial level⁴⁵, one at a national conference⁴⁶, and four at seminars/congresses abroad⁴⁷. While the research feedback was primarily directed towards health managers/workers at the facility, district, provincial and national levels, many of the research feedback sessions included NGO representatives, academics, policy-makers, and national and international collaborators. These sessions, and particularly the conference, *Tuberculosis: A multidisciplinary approach to research, policy and practice*, hosted at the University of the Free State (Bloemfontein, 11-12 November 2003), were marked by genuine interchange between researchers of various orientations and health policy makers/managers/practitioners.

⁴⁴ See Heunis, 2002; 2002a; 2002b; 2002c; 2002d; 2002e; 2002f.

⁴⁵ See Heunis, 2002h; Heunis & Janse van Rensburg-Bonthuyzen, 2002.

⁴⁶ See Heunis, 2003.

⁴⁷ See Heunis, 2002g; 2002i; 2002j; 2002k.

4.5 Ethics

Ethical clearance for the Joint Free State TB Research Project and the current study was obtained from the Ethics Committee of the Faculty of Health Science, University of the Free State (Annexure 1). Authorisation to conduct the research was also obtained from concerned managers of the Free State Department of Health; i.e. from the Head of Health, the Chief Executive Officer for Southern Free State Regional Complex, the District Manager for Thabo Mofutsanyana, and the District Manager for Lejweleputswa (Annexure 2), as well as from facility managers. Support for the research was also sought and obtained from SANTA (Annexure 3).

In respect to the TB hospital patient survey, the following ethical principles were maintained⁴⁸:

- Informed consent: respondents were informed about the reasons and objectives of the research and their participation in the research was voluntary.
- Confidentiality of information: information supplied by patient respondents was treated as confidential. The identity of these respondents was not revealed in the written or verbal presentation of research findings.
- No harm to research subjects: completion of interviews with ill and/or fatigued TB hospital patients was interrupted and postponed until such time they indicated they were fit to continue.

5. Summary

The three study areas of the Joint Free State TB Research Project, Goldfields, Qwaqwa and Thaba Nchu, are all marked by abject socio-economic conditions. TB and HIV/AIDS are diseases that thrive in such conditions. In the whole Van Rensburg & Redelinghuys's (2002) *'environmental scans'* alerts to the multiplicity of environmental, socio-demographic and socio-economic constraints amidst which TB control in the Free State must take place. These problems are related to TB, or at least create an environment conducive to TB. Control of the disease is daunting not only due to the serious TB epidemic itself, but also owing to the close association between TB and HIV/AIDS in a province where the majority of inhabitants are stricken by poverty and other social problems.

⁴⁸ See the letter of introduction to respondents preceding the interview schedule (Annexure 4).

This study is an analysis of the replacement of an arrangement to supply hospitalisation services for TB in the state-aided hospital sector in the Free State with a new arrangement in which public hospitals, district hospitals in particular, are taking up this burden. The research techniques employed include literature and policy reviews and surveys of health managers/workers and hospitalised TB patients through personal interviewing.

The Joint Free State TB Research Project was intended to bring the research community, government health services and NGOs together in devising improvements to TB control in the Free State. The design of the current study - a sub-project of the Joint Free State TB Research Project - is descriptive and exploratory and attempts to reveal the socio-historic role and critique of the hospital in TB control. It examines the nature and impact of broader health sector reform on TB hospital policy and the emergence of district hospital care of TB patients. An assessment is conducted of the decline of the practice in the Free State to institutionalise TB patients in state-aided NGO and private TB hospitals. In this endeavour the views and experiences of both health workers and managers, on the one side, and TB patients, on the other, are considered.

The study was granted authorisation by the concerned academic institution and provincial health authority, and was conducted in an ethically responsible fashion and in accordance with the stipulations of the contracts with the funders. The research findings were presented to a wide range of interest groups and, as such, benefited from the critique and suggestions of a large collaboration of those interested and engaged in TB control.

Chapter 2 Hospitalisation for TB: history and social critique

“As an institution of intramural, curative health care provision, the hospital has established its centrality since the early European settlement” (Van Rensburg et al., 1998: 236).

1. Introduction

Both public and private hospitals, in addition to their function in the health care system, have social roles and should also be assessed as such. Being important social institutions, hospitals have many interest groups: government and public health authorities, private-for-profit and not-for-profit providers, public health reformists, hospital managers and health workers, trade unions, public patients, fee-paying private health consumers, and elite medical schemes and their members. All struggle for scarce resources. When it comes to hospitals, what we describe as the health care system is ‘a seething mass of opposing viewpoints as the system struggles to provide all types of service to everyone’ (Biscoe in Permain, 1998: 932).

Discordance exists as to whether hospitalisation for TB in the multitude of forms it took historically really has been beneficial in the fight against the epidemic. Hospitalisation of TB patients inevitably implies their isolation from society and this raises questions as to the necessity, the morality, and also the effectiveness of this practice. Particularly from the work of the social theorists Goffman⁴⁹ and Foucault⁵⁰ much critique has been levelled towards the hospital as an institution that exerts grotesque social control over the individual, i.e. the ‘total institution’). Chapter 2 examines the changing role of the hospital in attempts to control TB around the world, in South Africa, and in the Free State.

⁴⁹ Some have lauded Erving Goffman as the last major thinker of the original Chicago School of sociology (Ritzer, 1988: 189). The Chicago School was a major catalyst of sociology and the spring of the theoretical approach of symbolic interactionism. Symbolic interactionists believe that what distinguishes humans from other animals is our vast capacity to create and use symbols (Sears et al., 1988: 16). In terms of this theory a social situation (such as a hospital) has no meaning in and of itself. It’s meaning is created through people’s actions and interpretations. The symbolic interactionist perspective also provided the basis for labelling theory and stigmatisation (Abercrombie et al., 1988: 248-249). As is shown in the current study, TB hospital patients are especially prone to labelling and stigmatisation.

⁵⁰ Michel Foucault is known for his studies of madness, crime, sexuality, and methods of classification (Faubion, 1994: i). His work impacted not only on sociology, but also on history and medical history, philosophy, literary criticism and political theory. The main topics of Foucault’s published work are knowledge, power and the human body. In his 1963 book, *The birth of the clinic*, he focused on the control of the body through the medium of rational, systematic knowledge (Foucault, 1963). The hospital exerts control on TB patients through such a medium.

2. The hospital in history

2.1 Global account

A chequered hospital history

In modern society the hospital is a cornerstone of the health care system and a major social institution for the delivery of health and medical care (Cockerham, 1992: 206; Weiss & Lonquist, 1994: 326). However, the hospital's function throughout history has not been constant (Granshaw, 1989: 1). The development of the hospital has always been linked to the varying economic, political, social, and cultural conditions that govern the life of man. The Western concept of a hospital can probably be traced back 8 000 years to Greece (Matcha, 2000: 308). The era of the hospital may proper have begun in the twelfth century when a distinction was made between refuges for the sick and those intended to house the aged and infirm (Masson, 1985: 21). In France and Italy hospitals founded by nurses in the early medieval period still exist today. During its early historical development the hospital was a "*repository for the poor and the homeless ... Home was where the sick should be treated; hospitals were associated with pauperism and death*" (Granshaw, 1989: 1). Its institutional identity often being linked to church or state, a mixture of poverty and altruism set the stage for the development of the hospital. The first hospitals in the United States of America in the early 1700s were '*poorhouses*' to accommodate those who could not be cared for by family members and to shelter the homeless. These hospitals were usually financed by charitable organisations and run by a steward or a matron, assisted by volunteers performing the '*nursing*' role (Weiss & Lonquist, 1994: 326).

Around the 1820s, non-sectarian hospital facilities operated by members of the community not connected to the church or the state, started to emerge in Europe. The emergence of such voluntary hospitals created problems in that they could impose restrictions on those admitted. The charitable hospitals were also unable to keep up with the extent of poverty and worker dislocation associated with the Industrial Revolution of the 19th century. The French Revolution produced the first public hospitals. These hospitals were centrally administered and specialised in care for certain age groups or specific diseases. Three reasons for the proliferation of modern hospitals throughout Europe may be cited: increased '*professionalisation*' of medicine and the fact that trained nurses became available to work in hospital settings; antiseptic use which improved the overall quality of care and led to a

reduction in mortality rates; and an expanding middle class able to afford insurance which made hospitalisation accessible to more people (Matcha, 2000: 311).

In the early 19th century formal medical care was focused on *'diseased bodies ... most suitably treated within the domain of the hospital'* (Nettleton, 1995: 243). Contrarily, contemporary health and medical care takes place in a multiplicity and diversity of locations and involves the maintenance and the promotion of health throughout the community. As hospitals developed and changed due to advancing science and medical technology, they also often became socially exclusive. By 1900 hospitals mostly admitted only the *'curable'*, while the elderly and the homeless had to look elsewhere. In the United States of America by 1920 hospitals had become primary centres of acute care treatment: *"Surgery was the key to both the growth and the increased status of hospitals along with the development of a skilled nursing force and the introduction of ancillary services such as X-rays⁵¹ and laboratories. As the size of the hospital and the scope of its services increased, administrators were added to coordinate this work and the complex, bureaucratic hospital of today emerged"* (Weiss & Lonnquist, 1994: 326).

During the 1950s massive federal, state and local government investment in hospital construction in the United States of America totalling some US\$14 billion spurred great expansion in the number of community hospitals. In contrast, in the United Kingdom, a policy of running down large hospitals dates back to the 1950s and 1960s and has been described as a *'precarious consensus'* between political parties committed to community care. By the 1990s the rationalisation of hospitals was continuing and health care in the community becoming privileged in contrast to care in hospitals: *"The long term trend is an increase in ambulatory and community-based care, and a corresponding fall in the relative importance of hospital inpatient facilities to the provision of health care. Increasingly chronic conditions ... can be effectively supported in the community, rather than in the hospital and this provides a better service for the patient"* (Nettleton, 1995: 243-244).

A 1990 overview of hospital systems in developing countries noted that one-third to one-half of health care resources were spent on hospitals and that larger general hospitals received a disproportionate share of these resources (Matcha, 2000). The larger the hospital was the more expensive it was to operate. Health workers' wages also consumed a larger percentage of the total

⁵¹ 'X-rays' refer to electromagnetic radiation with great penetrating power in matter opaque to light. X-rays are used in diagnosis in the techniques of radiography.

cost of care than in developed countries. In most developing countries hospitals were located mainly in the public sector. Private hospitals catered for the rich rather than for a cross-section of the population.⁵² In similar vein the *World Health Report, 1998* stated that hospitals continued to consume the largest share of the global health budget, sometimes at the expense of ‘health centres’⁵³ (World Health Organisation, 1998: 150). Further to this report, there was an expansion in PHC facilities and in the number of private hospital beds in Southeast Asia. In the Eastern Mediterranean, secondary and tertiary hospitals were being constructed and renovated, but at a slower rate than that of the general physical health infrastructure. In Europe, as in developing countries generally, hospital beds were still primarily in the public sector. Since hospitals are the main consumers of health care resources, they have been at the centre of health care reform in every European country: “*There have been many changes aimed at increasing patient satisfaction, rationalizing resources and achieving better outcomes. Most countries claim moderate to good development in this area, although the pace of change has been slower than desired. The number of hospital admissions has varied widely, even between countries with similar levels of economic and health development. Hospitalization all over Europe has shifted further from chronic and simple surgical procedures to acute, day hospitals and shorter length of stay, and complicated pathologies and treatments. On average, the number of hospital beds per 1000 population has decreased in all parts of the Region, most notably in some countries of Eastern Europe. On the whole, however, the costs of hospital treatment have probably increased, both in absolute terms and as a proportion of total health expenditure. Progress has been made regarding alternatives to hospitalization such as day surgery, day care and home care*” (World Health Organisation, 1998: 151).

Hospital history in sub-Saharan Africa

Based on data in 120 annual reports from 40 hospitals, Hamel & Janssen (1988: 140) characterised the ‘average rural hospital’ in sub-Saharan Africa as follows: “*The hospital has a staff of 86. Of the staff 35 are trained in nursing whereas 4 has a medical education. There are 2 resident doctors. Referring to 300 working days a year ... staff deals with 203 patients a day. Each day 17 patients are admitted. The length of stay per patient is 8.7 days. The number of beds is 138. Each day 119 beds are occupied. The occupancy rate is 86%. One staff trained in nursing is available for every 4 beds. Every 2 days 5 deliveries take place. Of the 922 deliveries annually 31 are*

⁵² In South Africa this has been evidenced by the fact that in 1999 whites (75%) were much more likely to have attended a private hospital than Indians (23%), coloureds (18%) and blacks (6%). South Africans also rated the quality of care provided by private health care facilities much higher than that of public facilities. The Kaizer Family Foundation Survey found that 45% of South Africans rated private facilities as excellent, compared to only 19% who rated public facilities so positively (Smith *et al.*, 1999: 9; 20).

⁵³ In South African vernacular a ‘health centre’ is usually referred to as a ‘PHC facility’, or even more typically as a ‘PHC clinic’ or a ‘community health centre’.

terminated by Caesarean section; the Caesarean birth rate is 3.8%. Of all major operations 40% concern emergency procedures. About 4 minor surgical procedures are performed each working day. In the laboratory 75 examinations are done each working day. The hospital serves a population of 110 000."

In a paper, *Hospitals in sub-Saharan Africa: why we need more of what does not work as it should*, Van Lerberghe *et al.* (1997: 799) stated that PHC policies in Africa were initially strongly influenced by a reaction against a colonial and post-colonial hospital-centred approach: *"It was only later, at a moment of economic crisis, that these policies rediscovered the need for basic health services and the organization of district health systems in which the first referral hospital has an essential supportive role to play."* Disavowal of the hospital-care model was a central feature of the PHC movement towards the end of the 1970s and early 1980s, but this did not stop construction of new hospitals in sub-Saharan Africa, mainly with European and bilateral funds. However, since then it has become increasingly difficult to obtain new commitments of multilateral donors and most influential NGOs in support of hospitals. It is particularly the secondary care hospital that was forgotten in the derision of tertiary care and in the rush to develop PHC. Hence the pendulum swung all the way from the inherited hospital-centred approach to PHC *"in its voluntarist (village health workers) or verticalist (selective PHC) interpretations. The hospital found itself in limbo, less because of Alma Ata as such than due to policy reorientations and sustainability considerations"* (Van Lerberghe *et al.*, 1997: 800).

The financial crises of hospitals in sub-Saharan Africa resulted from governments cutting subsidies and obliging structural adjustments in the hospital sector which, in turn, resulted in a lack of drugs, financial barriers to access of care and progressive deterioration of hospital estate. Today problems of quality of care, patient dissatisfaction, under-utilisation and financial barriers are common and are perpetuated by a *'vicious circle of low quality, low staff morale, low confidence and inadequate funding ... going on for so long that many professionals and users can no longer imagine that a hospital or a health centre can work in a different way'* (Van Lerberghe *et al.*, 1997: 803). The challenge is not just to insert the first referral hospital into the district care system, but also to find ways to improve the quality of care and to increase confidence in it among the community.

2.2 South African account

Jan van Riebeeck of the Dutch East India Company, shortly after his arrival in the Cape in May 1652, erected the first (tent) hospital. It accommodated 50 male patients. Four years it was replaced by a permanent structure. Adrian de Jager was the first chief surgeon. Other staff included a deputy and a trainee surgeon and a 'sick-comforter' (i.e. the title for an official who had to visit the ill and look after their spiritual needs). For lack of beds patients lay on the floor and also had to provide their own bedding. By the time the hospital could accommodate 700-800 patients, a sergeant (military commander) formed part of the hospital's management team. The hospital dealt mainly with the diseases contracted by sailors such as dysentery, ship's fever/typhus and scurvy/vitamin deficiency. Its services were limited to the officials and sailors of the Dutch East India Company (Van Staden & Du Toit, 1998: 177).

The documented histories of South African hospitals often tell the stories of the altruistic individuals who and charitable organisations that established them. Written hospital history seldom concerns itself with the plight of the patient. It is the pioneering role of the physician, and to a lesser extent the nurse, which draws attention: "*Dr H Sauer, the district surgeon performed quite heroic surgery in a squalid hut ... described in his book Ex Africa*" (Schreiber, 1991: 9). In their description of the foundations and development of a hospital-centred health care system in South Africa, Van Rensburg & Harrison (1995) emphasise successive governments' concern with maintaining '*central control of hospitals*' (Box 1).

Box 1 Foundations and development of a hospital-centred health care system in South Africa, 1600s-1900s

1600s-1800s: The foundations of a hospital-centred health care system in South Africa were laid soon after the arrival of the European settlers in the mid-1600s. The system was expanded systematically peaking from the mid-1800s as hospitals were erected in most major settlements. Three developments were central to the rise of the hospital: (i) the intention of the British colonial rulers to implement a system of large hospitals serving satellite hospitals and district surgeons; (ii) the discovery of diamonds and gold in the later part of the 1800s that spawned mining communities and mining hospitals; and (iii) missionary societies who established a network of smaller hospitals, serving a predominantly African-rural population. Striking is the manner in which the establishment and control of these services evolved. In the late 1880s the Cape colonial government instituted a separate Hospital Services Branch that served to consolidate control over hospitals. The Public Health Act of 1897 separated curative and preventive health care. Hospitals remained the responsibility of the colonial government, while responsibility for primary and preventive care devolved upon local authorities. A similar pattern of divided managerial control was instituted in other parts of the country.

First part of the 1900s: The development of the hospital system took a dual course: private hospitals developed alongside public ones and this division would become increasingly pronounced. The systematic entrenchment of the colour bar in the hospital sector also originated at this time. Later all these characteristics were to adopt starker proportions, contributing cumbersome dimensions to the fragmented health care system. At the time of Union administrative control of hospitals, they were seen as institutions for the indigent. The pattern of divided responsibility for and control of curative and preventive services was perpetuated. The South Africa Act of 1909 placed the 'establishment, maintenance and management of hospitals and charitable institutions' under the control of provincial councils. Leprosy institutions, mental hospitals and the district surgeon system were administered by the central government through Department of the Interior. The promotive and preventive emphasis of the Public Health Act of 1919 overshadowed the issue of curative health services and left the prevailing system of hospital control intact. The *Report of the Committee of Inquiry re Public Hospitals and Kindred Institutions* (Vos Committee, 1925) was published in 1925. It recommended that all large hospitals should be transferred to Union control. The Minister of Public Health, D.F. Malan, declined to give effect to the recommendation. A further committee was appointed in 1927 with a similar brief, but with the distinct understanding that provincial control of hospitals was non-negotiable. The committee found its hands tied by this directive and concluded that there was no alternative to unitary, central control of all curative services. The squabble over the administrative control of hospitals erupted again in 1942 with the appointment of a one-person commission of inquiry into the feasibility of free hospitalisation in the Transvaal. The Federal Council of the Medical Association of South Africa refused to co-operate on the grounds that at the time the Gluckman Commission was considering the national reorganisation of health services. The Health Act of 1977 sought to direct health care away from its curative, hospital-based emphasis.

Later part of the 1900s: There was also a clear intention to rationalise the organisation of health care by the different health authorities: the central department was charged with ensuring that it provided a comprehensive health service for the South African population; local authorities were delegated responsibility for preventive, promotive and rehabilitative services; and the provincial administrations were made responsible for curative care and all services in areas not served by local authorities ('section 30 areas'). In reality the Act did little to affect the change from hospital to community-based care. Hospitals remained firmly the responsibility of the provinces. The National Health Service Facilities Plan of 1980 also attempted to shift policy away from its hospital-based inclination. It introduced the concept of 'echelons of health provision' and strongly promoted PHC. The National Health Plan of 1986 (Browne Commission) made provision for the delegation of executive functions to provincial and local authorities on an agency basis. Either the national department or 'affairs' for different races would control public hospitals. Ultimately, provincial authorities were left with more autonomy, as the devolution of executive responsibility for hospital services gave them a greater claim on financial resources. The late 1980s and early 1990s saw the systematic dismantling of apartheid in hospital institutions, but also growth in the private, for-profit hospital industry. This latter development reinforced the hospital-based, curative emphasis in health policy, but now with a different slant - it was driven by the profit motive.

Source: Compiled from Van Rensburg & Harrison, 1995.

Prospects of hospital desegregation and the end of hospital apartheid came to the fore in 1990 when the apartheid⁵⁴ government announced its decision to use hospitals in the most efficient and economical way: “*Every bed in the 240 hospitals under [the government’s] jurisdiction will be open to all South African regardless of race ... The change in policy would mean that some of the overflow of patients at Baragwanath Hospital in Soweto could be transferred to Johannesburg Hospital. In Durban patients sleeping on the floors of the King Edward VIII Hospital could be accommodated in wards at Addington Hospital, which was previously closed because of insufficient patients. The impact of the changes on white South Africans is predicted to be slight – most of them use private hospitals and clinics that are too expensive for most blacks ... Breaking down apartheid in schools is likely to be much more difficult*” (Delamothe, 1990: 1419). Actually, this was merely the start of a process to dismantle discrimination in the organisation of the South African hospital system. This process, some thirteen years later, is not yet complete, nor likely, it seems, to be so soon. The new government is finding it hard to drain resources away from large hospitals in favour of PHC. Although there have been shifts in the shape of the national public hospital portfolio, reductions have not been accompanied by significant increases in bed occupancy rates.

Health governance structures at national, provincial and hospital level, inherited from the previous dispensation, were traditionally concerned with day-to-day routine activities. They were neither trained nor prepared to undertake fundamental PHC reform, and also not ‘*overly concerned with cost effectiveness and efficiency*’ (Ruff, 1997: 59-60). After the democratisation of 1994 a new hospital management corps that more closely reflected the demographics of the country, was appointed. Not only the race and gender, but also the profession of the hospital superintendent, was in question. The Gauteng Provincial Legislature, for example, through the Hospital Ordinance Amendment Act, No 4 of 1999, replaced the notion of a superintendent who is a medical practitioner with that of a ‘*manager*’ who is appointed by the MEC as a chief executive officer (CEO).

Strachan *et al.* (2001: 221) found that the tradition of a white, male doctor as hospital superintendent was gradually making way for greater female and professional mobility, with six in every fifteen hospital superintendents involved in their study being female and four being nurses. Hospital supervisors in South Africa, according to the authors, were mostly new to the job (*‘few months to four years in their posts’*). The hospital superintendents sampled by Strachan *et al.* viewed the following as

⁵⁴ ‘*Apartheid*’ was the ‘*political policy that intended each colour group to develop independently according to their own nature, aptitude and tradition*’ (translated from Schoonees, *et al.*, 1973: 37).

their overall achievements: improving the quality of care, recruiting doctors, introducing new services, opening theatres, and extending service hours. Nevertheless, according to Ntuli *et al.* (2001: 204), 27% of the hospital manager corps experienced low levels of personal accomplishment. “*On the whole superintendents seem to feel that their head offices present orders from a distance, without understanding the situation in the hospital and it’s surroundings*” Strachan *et al.* (2001: 225). The authors also reported, however, that most superintendents preferred ‘*minimal governance*’ and wanted ‘*head office*’ to help them without interfering too much. Frustrations experienced by hospital superintendents included the insecurity of their own positions (formal appointments took as long as two years to complete), salary scales (other doctors earned more than doctors who were superintendents), lack of promotion opportunities, and little administrative support. Hospital superintendents also complained of having too little control of their environments and in determining their own programmes in settings with external demands over which they had little control. While a desperate need existed for management training in a variety of areas, hospital superintendents found it difficult to leave the hospital for the length of time required to attend courses. Although training for hospital staff was available, there was a sense of too many new and different health programmes ‘*thrown to staff all at once*’. Poor infrastructure, i.e. rundown facilities and buildings and lack of transport, including ambulances, was identified as a further frustration. A strong impression from the findings of Strachan *et al.* (2001: 228) was that the provinces disregarded hospital superintendents in planning and decision-making.

According to Boulle *et al.* (2000: 238) it was anticipated that the Public Service Amendment Act No 5 of 1999 would allow hospital managers to appoint higher levels of staff. Nevertheless, the filling of vacant posts remained a key frustration. Not only was it difficult to obtain approval for the filling of posts, but also to retain existing skilled staff was a challenge. Hospitals in South Africa were being depleted of their longest serving and most skilled nurses by voluntary severance packages combined with active recruitment of nurses by overseas countries. Gray & Suleman (1999) reported that countrywide 67 hospitals were without a pharmacist. This was especially problematic in Limpopo, the Northern and the Eastern Cape, and the Free State.

Grievances of hospital nurses and doctors in South Africa have been traced back as far as the 1800s. Generally these grievances related to working conditions, remuneration and management. The first ‘*official*’ grievance was lodged by a surgeon in 1824, nurses rebelled against ‘*salaries and food*’ in 1869, and industrial action by nurses due to discontent with the manner in which their grievances were

handled, took place in 1889 (Potgieter & Muller, 1998: 14). Matebesi (2001) analysed the effectiveness and efficiency of labour relations processes and practices, focusing on Pelonomi Hospital in Bloemfontein. His findings convey a sense that hospital workers in the public sector retained much of the militancy typical of the 1980s and early 1990s. Gross racial and gender distortions marks the history of labour relations in the public sector, with white males dominating the senior management positions. In the 1980s and especially the early 1990s not only blue-collar hospital workers, but notably also nurses and some doctors actively engaged in the labour struggle and '*took it into the very corridors of the hospitals*'. The Congress of South African Trade Unions (COSATU) led their quest. Public sector and public hospital strikes largely ceased after 1994, implying, according to Matebesi (2001: 12), that '*conflict in the public sector were [sic] efficiently structured*'. Contrarily, Van Rensburg & Van Rensburg (1999) two years earlier had warned of prospects of increasing labour unrest because of continued restructuring and periodic staff retrenchments in the public sector. Matebesi (2001: 12) stated that dissatisfaction with the government's handling of wage negotiations for the public sector also held potential for resurging strike action at public hospitals.

Noteworthy is that both past incidence and future prospects for industrial action in hospitals seem(ed) to be confined to public hospitals. Strachan *et al.* (2001: 223) found that disputes around race and disciplinary issues in the public sector posed a '*continuing and time-consuming management challenge*'. The authors reported that hospital superintendents believed that staff relationships and attitudes were negatively affected by staff shortages, '*overwhelming*' workload, lack of employment security, and the '*constant struggle to balance clinical work with administrative and managerial duties*'. Race, poor work commitment of staff and high levels of theft were further causes of tension. Legitimate concerns, however, about the capacity of nurses' trade unions to plan and orchestrate strikes in ways that ensure both effective labour goal attainment and consideration of the need to minimise harm to patients, may be raised. Nurses have traditionally displayed little professionalism in their industrial action and consequently seldom succeeded in their stated goals (Gwagwa & Webber, 1995). Matebesi (2001) indicated an extraordinary high degree of trade union fragmentation among nurses: Of the nurses at Pelonomi Hospital, 38% were members of the National Education, Health and Allied Worker's Union (NEHAWU), 29% of the Democratic Nursing Organisation of South Africa, 19% of the Public Servants Association, 10% of the South African Democratic Nursing Union, and 5% of the Public Servants and Allied Workers' Union. In contrast, the 42 blue-collar workers in Matebesi's

sample almost all (97%) belonged to NEHAWU, giving credence to the popular labour slogan of ‘one industry, one union’.⁵⁵

Heunis & Pelsler (1997: 46) argued in favour of nurses’ right to strike: “*To deny nurses the right to strike is to disarm them in a competitive struggle and is to the unfair advantage of other interest groups. At the very least, there is little ethical reason for a total ban on nurses’ striking.*” The authors stated that, in as far as nurses’ labour rights were concerned, serious questions could be asked with regard to the notion of nursing as a ‘calling’ or even of ‘professional nursing ethics’: “*In the case of South African nurses it seems that such notions are sometimes (albeit consciously or unconsciously) employed to impose complacency and further subservience.*” It is not the right of nurses to strike that was questioned, but rather their organisational capacity to plan and orchestrate strikes in ways that ensure both effective goal attainment and consideration of the need to minimise harm to patients through the maintenance of essential services during strikes. From media reports it is patently clear that hospital strikes sometimes go horribly wrong. Media criticism has tended to focus on extreme effects of hospital worker strikes (Box 2).

Box 2 Media portrayals of strikes in public hospitals in South Africa, 1992

- “[Nurses] had walked out of the theatre during operations; abandoned mothers in labour; left sick children without care; toyi-toying about the parking lot; singing, chanting and waving placards; sitting knitting or chatting idly; seemingly enjoying the occasion.”
- “[The hospital] resembled a refuse dump with decaying rubbish piling up in every available space – including wards and change rooms ... fermenting afterbirths lay on the floors of the obstetrics and gynaecology departments ... while doctors and nurses toyi-toyed inside hospital premises for most of the day.”
- ‘Mortality ... in the neonatal ward rose by about 137 percent during a strike’.
- ‘mothers ... sent home 4 hours after giving birth’.

Source: Van Tonder, 1992.

It is against this background of turmoil and militancy that Free State district hospitals have to take up an increased burden of TB care.

3. TB control and hospitalisation for TB in history

“*If the number of victims which a disease claims is the measure of its significance, then all diseases, particularly the most dreaded infectious diseases, such as bubonic plague, Asiatic cholera, etc., must rank far behind [TB]*” (Robert Koch, discoverer of the tubercle bacillus in 1882, cited in Collins, 1991: 1).

⁵⁵ Total registered trade union membership in South Africa stood at 21% of the economically active population in 2001, which was slightly less than the 24% of ten years before (Dimant, 2003a: 185). Of course, in 1992, trade union membership was still boosted by the political agenda of the labour movement in concert with the ANC.

3.1 Global account

TB: an ancient disease

Since its effects on bones can be identified, TB is known as one of the oldest human diseases (Crofton in Keers, 1978: viii). Signs of spinal TB in remains of Neolithic man and images of hunchbacks, dating 5 000 BC, probably provide the earliest evidence of TB. According to Collins (1982: 780), Hindu physicians had a broad clinical knowledge of TB as long as 3 000 years ago. Hippocrates provided the first recorded clinical description of the disease in 400 BC. There is no lack of evidence that TB was active in the days of early Egyptian civilisation. It is generally accepted that it is probable that Pharaohs such as Tutankhamun, and Akhenaton and his famous queen Nefertiti, were victims of TB. TB is the ‘*ancient enemy of mankind*’ (Collins, 1991: 1). TB originally spread from animals to humans about 8 000 to 10 000 years ago, just as AIDS did in the twentieth century: “*From their cows, some farmers and their families probably contracted [M. bovis]. Sick cows exhaled the bacteria, and human beings breathed them in. They may also have gotten TB bacteria from the cow’s milk. The bacteria learned to live in the human body, which is not all that different from a cow’s, preferring to settle in the lungs, although they could attack many other organs*” (Reichman & Hopkins Tanne, 2002: 11).

TB in the 16th, 17th, 18th and 19th centuries

We do not know exactly how prevalent TB may have been in ancient times, but we do know how disastrously it spread in Europe in the 18th and 19th centuries when a large percentage of all deaths were due to it. In fact, TB killed steadily throughout all of the Egyptian, Greek, Roman, Medieval, and Renaissance times (Reichman & Hopkins Tanne, 2002: 15). Collins (1982: 780) describes ‘waves’ of TB that spread across Europe, favoured by overcrowding in cities and towns. During the 16th century TB reached epidemic proportions in Britain and spread eastwards across Europe. Around 1650 mortality from TB is believed to have been very high, while it slowly decreased during the latter part of the 1600s. In the early 1700s it again began to increase and reached a maximum in England and America by the end of the 18th century and during the first half of the 19th century. Collins (1982: 780) stated that surveys carried out at the beginning of the 20th century revealed that almost all the adult population in European and American cities was tuberculin positive. There was a direct relationship between augmentation of TB and the Industrial Revolution in England, and according to Collins (1982: 780) a similar relationship occurred in South Africa. TB was in the words of Rene

Dubos: *'perhaps the first penalty that capitalistic society had to pay for the ruthless exploitation of labor'* (Packard, 1992: 104). The spread of TB during the 19th century was the outcome of social tragedies that followed in the wake of the industrial revolution. The need for labour in the new factories brought about a huge and sudden shift of population from rural to industrial areas where both work and living conditions were simply dreadful. Work life constituted long hours of exhausting physical labour *"in the dark suffocating atmosphere of the coalmines, in the dark factories and the damp offices. Malnutrition prevailed in the shabby, filthy and crowded tenements, and the bleakness of life was relieved only by gin and vice"* (Dubos & Dubos, 1953: 199).

Natural selection of individuals or groups has been used to explain changes in the TB epidemic (Collins, 1982: 781). Certain individuals or groups succumb to infection owing to poor innate or community resistance. They leave behind a biologically sturdy population to fight infection and overcome the disease. Early on in the epidemic it takes a high toll among children⁵⁶ and young adults, eliminating a biologically weaker segment of the population. In subsequent phases higher morbidity and mortality among the elderly, especially older males, results from their earlier infection and their relatively lower immunity. According to Collins (1982: 781) the time span required to attain a low prevalence and incidence of disease and infection is related to such determinants as urbanisation and overcrowding⁵⁷, standard of living, *'tuberculinisation'* of the community and the effectiveness of preventive and treatment measures. Although urbanisation speeds up the epidemic, as the *'wave'* advances the infection the disease spreads to rural areas as well and becomes omnipresent. Temporary exacerbations of the epidemic result from conditions of stress such as famine or war.

TB in the 20th century

It is an erroneous perception that TB mortality only began to wane in the 20th century and that the decline in mortality was mainly due to TB campaigns and modern medicine. Dubos & Dubos (1953:

⁵⁶ Children, particularly those under two years of age, are not yet immunologically mature. Moreover, diagnosis of TB in children is very difficult. They are not always able to produce sputum. In the South African context Báez (2003) lamented that *'it is still frequent to see children going in and out of the system and even dying without a proper diagnosis'*. Part of the problem is that TB in children is *'medically and hospital managed'*: *'there is not a culture of continuous care for children'*. Báez went on to pose a challenge to first-line nurses to properly manage TB in children. The author advocates for three pillars of diagnosis of TB in children: (i) the epidemiological (contact history), (ii) the clinical (chronic cough and fever), and (iii) the nutritional (weight loss). Thus Báez purported that the use of a scoring system (the acclaimed *'score sheet'*) is useful/necessary in accommodating all the important aspects when diagnosing TB in children.

⁵⁷ The mid-2002 estimate of population density in South Africa was 37 people per km², and that in the Free State 22 people per km².

185) pointed out that TB *'waxed and waned'* several times in the course of human history. In the United Kingdom TB mortality was very high around 1650; it then decreased slowly before climbing to a new peak around the middle of the 19th century. Two hundred years ago one-quarter of all deaths in the United Kingdom were TB-related (Sanders, 1985: 31). TB remained a serious scourge in the United Kingdom for the next 150 years. As recently as 1950, 50 000 cases were notified in England and Wales. By the end of the 1950s the bacille Calmette-Guérin (BCG) vaccine and, more importantly, successful drug therapy, had begun to reduce case numbers sharply, so that by the late 1980s less than 6 000 cases were notified (*TB Focus*, 2000: 1).

Referring to the remarkable decline of TB infection in industrialised countries prior to the advent of chemotherapy⁵⁸, Webber (2000: 184) describes TB as a *'disease of poor social conditions and overcrowding'*. Dubos & Dubos (1953: 186) pointed out that when the concerted social and medical efforts to control TB began around 1900, annual mortality caused by the disease in America and England had already fallen to 200 per 100 000, half that of just a few decades earlier. Nevertheless, even at this lower level TB remained the greatest killer of the human race. In fact many physicians and public health officers long remained unaware of the downward trend that had begun spontaneously.

The sanatorium⁵⁹ movement

Traditionally, the problem of staffing TB sanatoria is related to the perceived nature of the disease, i.e. the *'White death'* (Williams *et al.*, 1971: 551): *"At best, working in hospitals was risky because of unchecked infections, but working in a sanatorium was viewed as being fatal."*⁶⁰ The *'sanatorium movement'* lasted for 100 years up to the middle of the previous century. The sanatorium represented the basis of TB treatment before chemotherapy. Sanatoria were self-contained communities, also known as *'waiting rooms for death'*, as TB was synonymous with death, and death was an ever-present characteristic of the sanatorium: *"However much the sanatorium resembled other institutions, it had one feature - the omnipresence of the*

⁵⁸ The potential effect of chemotherapy *'delivered as DOTS'* on TB is today greater in many developing countries than it was in developed countries 50 years ago (Dye *et al.*, 1998).

⁵⁹ *'Sanare'* is Latin for *'to heal'* and is the root of the word sanatorium: *"at the heart of the treatment of [TB] was a belief in a community or place as an active part of healing ... Due to an escalated fear of contagion, private and public sanatoria satisfied society's efforts to both isolate and cure those with [TB]"* (Nolt, 2003).

⁶⁰ Johansson *et al.* (1996) recorded the attitudes of TB control staff to tuberculosis and *'compliance'* with treatment in Vietnam. The staff viewed TB as hereditary, infectious, *'dirty'*, confined mainly to poor people, and caused by hard work and *'bad hygiene'*. The staff also thought that most patients presented late for treatment at health facilities, and only after *'self-treatment'* at home. They considered higher education and the availability of money as factors that

shadow of death. Apart from it, nothing can be understood about sanatorium life, whether it was staff enforcing rules or patients seeking sexual pleasure. Staff tried to brush it off with aphorisms about being strong and determined. But in countless ways, some personal, others collective, the sanatorium experience was at its core an encounter with mortality” (Sucre, 2003).

A therapeutic concept of the curability of consumption by ‘*open-air living*’ gave rise to TB sanatoria: “*It was then assumed that a mysterious factor in certain climates prevented [TB] in natives and would heal it in consumptives*” (Wilson, 1967: 515). Interestingly, Sucre (2003) stated that at two Virginia sanatoria there were no architectural representations of death such as mortuaries, morgues, funeral homes, cemeteries, crematoriums or gravestones within the sanatorium landscape. The social and communal acknowledgement of death was also suppressed within the sanatorium community. Sanatorium rules and information regulated the social atmosphere. These rules forbade conversations between patients about their disease, symptoms⁶¹, or any subject relating thereto, including that of death. Discussion of death was impermissible as patients were to keep a positive frame of mind. Even though patients mourned silently about the death of another, staff members were instructed to remain apathetic to the death of their patients.

Sanatoria were first established in Germany (Silesia) in the mid-19th century (Fairchild & Oppenheimer, 1988: 1107). These sanatoria meant to cure TB through the provision of fresh air and exercise, diet and graduated labour. In the following century sanatoria incorporated clinical interventions such as tuberculin treatment and pneumothorax⁶². British historians ‘*writing in McKeown’s*⁶³ *shadow*’ challenge the clinical efficacy of these sanatoria when assessing the relative importance of medical and non-medical factors in the decline of TB. Historians also question whether the isolation of patients in sanatoria was useful in the prevention of primary infection. Their scepticism is rooted in chronology: Sanatoria and other special institutions for the isolation and care

positively affected adherence to treatment. The staff also considered it necessary to integrate TB control with PHC activities.

⁶¹ Symptoms of TB include fever, night sweats, weight loss and the spitting of blood (Brooker, 2003: 303; Martin, 1998: 677).

⁶² ‘*Pneumothorax*’ refers to the deliberate injection of air into the pleural cavity to collapse the lung and allow TB areas to heal (Martin, 1998: 519).

⁶³ Thomas McKeown in 1970 argued for a ‘*sociological approach to the history of medicine*’. He suggested, amongst others, the relative contributions of sanitation, nutrition, and medical technology as topics for the social historian. Another such topic suggested by him was the development of hospitals and their changing role within society (Weiss & Lonnquist, 1994: 19).

of TB patients, in fact, did not proliferate until after Koch's discovery of *M. tuberculosis*⁶⁴, the aetiological agent of TB in humans, in 1882. Yet mortality from TB began to decline in Great Britain sometime between the 1830s and the 1880s, and in the United States of America between the 1860s and 1870s. With cure as the goal, the sanatoria and voluntary hospitals carefully selected early cases of TB over chronic '*incurables*'. State sanatoria in Britain, established after the National Insurance Act of 1911 came into existence, applied the same rules for patient selection. Around the same time however a realisation began to dawn that the clinical success rates of the sanatoria were far lower than expected with more than half of patients dead five years after their release. Of this the British historian F.B. Smith wrote: "*It was unfortunate that a coterie of medical practitioners captured the [TB] specialty in the late 1880s and thereafter set the terms by which the disease was comprehended. Public money could and should have been diverted to trying preventive measures and to helping severely impoverished cases and their families*" (Fairchild & Oppenheimer, 1988: 1107).

Also in the United States of America, historians held that sanatoria, because of their scope and design, could not have successfully isolated infectious individuals. Rothman, describing the coercive, punitive system of TB treatment in New York City shortly after the turn of the 20th century, argued that both the institutional organisation and philosophy of the time was fundamentally flawed: "*Otisville, the municipal sanatorium opened in 1906, was 'spartan, austere, and sometimes punitive'. Patients, accordingly, typically left the institution shortly after arriving. Those institutions created to hold recalcitrant, intractable infectious patients by force were also failures ... lacking the medical supplies, the necessary staff, and the facilities to maintain discipline, such institutions ... were too prison-like to be hospitals and too hospital-like to be prisons*" (Fairchild & Oppenheimer, 1988: 1107).

⁶⁴ This discovery revealed that the risk of becoming infected with tubercle bacilli was largely exogenous in nature and occurred primarily through an airborne transmission route as previously suspected by Koch (Rieder, 1999: 17).

Table 22 Overview of the sanatorium movement, 1840-1974

YEAR/LOCALITY	DEVELOPMENT
Experimental phase: 1840-84	
1840/England	George Bodington originated the concept of a ' <i>special institution</i> ' for TB treatment, focusing on sound diet, wine, exposure to the outdoors by increased walking distances and a home for the supervision of patients. Bodington was first criticised for his ' <i>very crude and unsupported ideas</i> ' by his peers in the <i>Lancet</i> of 1840, but the same journal in his obituary notice (1882) remarks: " <i>it was remarkable that a village doctor should arrive in 1840 at those conclusions which anticipated some of our most recent teaching. It is less remarkable that he met with the fate of those who question authority.</i> "
1859/Germany	Hermann Brehmer instituted a pioneer sanatorium in the mountains at Goebersdorf. He reasoned that TB was rare at high altitudes. He subscribed to the theory that the disease was caused by small hearts yielding poor pulmonary circulation. Like Bodington, Brehmer advocated for graduated walking exercises to strengthen the myocardium. A former patient of his, one Peter Dettweiler, introduced the concept of physical and mental ' <i>rest periods</i> ' in the open on reclining chairs (' <i>liegekur</i> ') that gained support as the ' <i>cure de silence</i> ' or ' <i>rest hour</i> '.
1888/Germany	Otto Walther applied hyper-alimentation and strict discipline which ' <i>excluded entertainment and discouraged visitors</i> ' in Nordrach-in-Baden. These basic methods of treatment were generally adopted.
1866/Switzerland	In Davos, Alexander Spengler established the first sanatorium where a " <i>unique medico-social entity existed in these closed communities made up mainly of the young ... Long hospitalization, a slow decline with a 60-70 per cent mortality; enhanced mental activity due to low grade fever, boredom, loneliness, frustration and fear provided the essential ingredients for the vivid articulation of life's joys and sorrows.</i> " This found expression in a genre of fiction, sanatorium literature; such as the classic <i>Der Zauerberg</i> (<i>The Magic Mountain</i> , 1924) in which Thomas Mann provides a penetrating insight into the psychology and philosophy of chronic disability, based on a visit to the luxury Wald Sanatorium at Davos. The public and personnel of Davos, however, were less than happy with Mann's portrayal of its commercialism and the eccentricity of its doctors.
Developmental phase: 1885-1910	
1882/Europe/ United States of America	Koch's discovery of the tubercle bacillus and the belief that oxygen was harmful to the germ, lead to further emphasis on the exposure to fresh air. Now the sanatorium doctor, often recruited from patient ranks, was heralded as a specialist, laboratory research worker and academician in a new discipline.
1883/England	Robert Philip, inspired after attending one of Koch's lectures on M. tuberculosis in Vienna in 1882, returned to establish the Royal Victoria Hospital in Edinburgh. His friends financed the hospital. This service became part of a local TB administrative unit, the Edinburgh Scheme, with the dispensary as the control unit, contact tracing, examination, documentation of cases, and home visits conducted by the first-ever appointed ' <i>home visitors</i> '. Maintained by public subscription the Edinburgh Scheme attracted worldwide interest.
1885/United States of America	Edward Trudeau, a doctor contracting TB two years after graduating, established at Saranac a cottage for TB patients maintained by public subscription. It grew into a prestigious institution where the likes of Robert Louis Stevenson were treated. Saranac also developed a laboratory that became famous for research into TB immunity.
Supplementation phase: 1910-1950	
1894/Italy	Carlo Fornalini initiated artificial pneumothorax (APT), which was the first specific treatment of TB that resulted in patient improvement. From 1910 APT gained gradual acceptance in Europe starting in the Nordic countries.
1897/United States of America	The first sanatorium was established in Ontario. Fifty years later there were sixteen sanatoria operating more than 4 000 beds.

YEAR/LOCALITY	DEVELOPMENT
1908/United States of America	The former Red Sulpher Springs Resort in Roanoke County was converted into a sanatorium, the first in Virginia and called the Catawba Sanatorium. Located 1 800 feet above sea level and on the southern face of the forest foothills of Brush Mountain, patients were required to use the extent of the property as part of their 'cure' regimen, including walking at a slow pace along paths segregated by sex. Catawba Sanatorium was the first public response to the TB epidemic. Subsequently the major part of the appropriation of US\$40 000 towards the eradication of TB in Virginia went to creating either temporary or permanent sanatoria.
1918/United States of America	The first sanatorium for blacks was established in Burkeville, Virginia. Named the Piedmont Sanatorium, unlike Catawba Sanatorium, it had no views of mountains and was placed in close proximity to the black population of Burkeville. Previously the only treatment for black consumptives was in state mental institutions ⁶⁵ where the hygiene level and the quality of treatment was very poor. A primary motivation behind a sanatorium for blacks was to protect white families from contracting the disease from their household servants ⁶⁶ . However, earlier attempts to locate the Piedmont Sanatorium, first in Ivor and then in Lynchburg, failed due to public protests.
1920s-1930s/United States of America	Sanatoria expanded rapidly. However, a shortage of qualified staff for sanatoria was experienced.
1930s-1950s/United States of America	Comparison of treatment results of the Michigan State Sanatorium where APT was used with a group of other sanatoria where only 10% of the patients underwent APT, reflected that Michigan discharged 47% of its patients as 'arrested', compared to the 17% of other sanatoria. In the ensuing decade new drug therapies were developed that were particularly effective in controlling TB. TB morbidity and mortality and admissions to sanatoria began to drop.
Period of decline: 1950-1958	
1958/United States of America/Europe	State-owned sanatoria were running out of patients and closing down. Private sanatoria had by then already 'bowed out' in the depression years of the 1930s. Philanthropic institutions such as Saranac closed down in the 1950s due to the rising cost of TB treatment, advances in thoracic surgery, improved radiography, occupational therapy and the greater number of nursing and specialist staff employed. Contributing factors included the gradual decrease of TB mortality from about 1850 as a result of improved social conditions and the use of mass miniature radiography for screening populations after the 2 nd World War. Such screening brought cases for out patient therapy to early attention.
1974/United States of America	Huge protest met the effort to close sanatoria in New Jersey – these institutions were major employers, some even having taxing power in their local towns. Of 173 patients who were hospitalised at the Glen Gardner Sanatorium, three-quarters were found to have needed only careful out patient care: "For most of them, [out patient] treatment was more humane and would allow them to lead more normal lives with their families." During the 1970s the prevalence of patients hospitalised for TB decreased four times faster than the incidence of TB. The duration of hospitalisation also decreased from a few months to a few weeks.

⁶⁵ In the Free State, as recently as the late 1990s, TB patients were hospitalised in the same institutions as psychiatric patients.

⁶⁶ This is ironic because, 'when young Africans were kidnapped in western Africa and sold in America, they brought no TB with them' (Stead, 1998: 791).

YEAR/LOCALITY	DEVELOPMENT
2003/United States of America	The last 'freestanding' TB sanatorium in the country, the A.G. Holley State Hospital, still operates in Lantana, Florida. However, politicians and University of Miami officials were describing the facility as 'a relic of the past' and were advocating for its conversion into a mall, housing development or a large research centre. Florida was only one of 42 states that still allowed the 'commitment' of TB patients who fail to complete their drug therapies. A.G. Holley State Hospital had been in existence since 1950 and is a 'monument to the heyday of TB'. Indeed the resurgence of TB 'saved A.G. Holley from extinction and turned it into a leading treatment and research center for [MDRTB]'. While politicians and academics contemplated its closure the sanatorium was still hospitalising patients from Latin America, Haiti and other less developed areas. Half of its patients also had AIDS. Almost 60% of it's patients were court-committed to A.G. Holley for contravening TB control laws for not undergoing daily DOT supervision of their treatment by a health care worker. Dr. D. Ashkin, medical director of the sanatorium, became 'very irritated' when people called the last freestanding sanatorium in the country a 'dilapidated eyesore'. Although the sanatorium was down to 50 beds from it's original 500, its mission to restore patients' health and protect the public had become more crucial. Between 35 and 50 beds of the sanatorium were always filled with MDRTB patients: "We don't take you just because you have [TB], we take you because you are out of options."

Sources: Compiled from Barton, 2003; Gertz, 2003; Nolt, 2003; Powell *et al.*, 1984; Reichman & Hopkins Tanne, 2002; Sidebottom, 2003; Stead, 1998; Sucre, 2003; Williams *et al.*, 1971; Wilson, 1967.

Public health pragmatism and nihilism

Globally, the institutionalisation of TB patients may have had an impact on the more rapid decline in the TB mortality rate after 1920, although segregation cannot be separated from other possible causes of this decline. In fact, some authors have viewed the sanatorium movement very sceptically, suggesting that despite it's 'draconian demands on a patient's life', it had absolutely no effect in curing TB: "Whether [TB] patients were treated in a sanatorium or not treated at all, half of them died" (Reichman & Hopkins Tanne, 2002: 21). The public health effect of patient isolation was, however, central to population level, quantitative histories of TB (Fairchild & Oppenheimer, 1988: 1108). The authors cited the work of Newsholme who found that the segregation of patients with advanced PTB (phthisis) was responsible for the decline in TB mortality in England and Wales, Scotland, Prussia, and New York City. Newsholme further indicated that improvement in nutrition and standards of living, although strongly correlated with decreasing death rates in Great Britain⁶⁷, did not correlate or correlated only very weakly in Prussia and France, and were actually inversely correlated with phthisis mortality in Ireland. Thus, Newsholme inferred that the pattern of declining TB deaths and rising living standards in England and Wales was not observable in other countries: "If there existed strong

⁶⁷ It may well be that the decline in TB in Britain has now inverted. A recent newspaper article, titled *Britain's TB shame*, cited statistics of the WHO and of the Public Health Laboratory Service (PHLS) to this effect. Marsh (2003: 24) reported that TB had become 'so rife that rates in some parts of the country exceed those in Third World nations ... rising by almost 20 per cent in a decade'. Referring to the impoverished Newham in London where refugees make up about eight per cent of the population, this author deplored that more TB cases are seen than in many ex-Soviet bloc countries.

universal determinants of the fall in TB mortality rates across nations, then one had to look elsewhere" (Fairchild & Oppenheimer, 1988: 1108). For Newsholme the answer lay in segregation of TB patients. This was based on his observation that a growing proportion of consumptives were segregated in British Poor Law infirmaries and workhouses. The poor, who were at highest risk of infection, were sent to such institutions rather than to the new and scarce sanatoria. The segregation of consumptives with active disease diminished the transmission of infection. Newsholme also found in contrast that the administration of the Poor Laws in Ireland meant that a far higher proportion of the Irish poor received *'outdoor relief'* rather than institutional benefits. Segregated confinement was much more uncommon than in Britain, with reliance on domestic treatment enhancing the transmission of phthisis within families (Fairchild & Oppenheimer, 1988: 1108).

Newsholme's position may be named the pragmatic public health care approach and stands in direct opposition to McKeown's public health nihilism⁶⁸. A public health official, Newsholme was particularly concerned about practical and cost beneficial opportunities to reduce the toll of TB (Fairchild & Oppenheimer, 1988: 1108). In terms of this approach the overriding objective was to seek out pragmatic solutions to the TB epidemic. Public health obviously had difficulty in addressing poverty, overcrowding, and malnutrition. However, these factors according to Newsholme were relatively weak determinants of the decline of TB mortality. Institutional segregation, especially of *'open cases'*, thereupon, in Newsholme's view, was efficacious and politically realistic. Wilson (in Fairchild & Oppenheimer, 1988: 1108) concluded that Newsholme successfully eliminated population living standards as key determinant in understanding the decline in TB mortality. Rather there is, for Newsholme and Wilson, a demonstrable constancy in the relationship between declining TB mortality and the increased segregation of infected patients, while the association between TB mortality and indices of improved social conditions across a number of countries has been inconsistent. Wilson also attempted to strengthen Newsholme's thesis by analysing trends in TB mortality for the period 1838-1961. He observed that, as programmes in England, Wales, and New York focused increasingly on isolation or treatment of the infected (as opposed to isolation of only the *'poor consumptives'*), the rate of decline accelerated. Wilson also

Half of these cases, reportedly, are from India, Bangladesh, and sub-Saharan African countries. Ostensibly, thus, if TB originally spread from the First to the Third World, that pattern is now being reversed.

⁶⁸ *'Nihilism'* refers to a conviction that there is nothing to approve of in the established order (Sykes, 1982: 685). *'Public health nihilism'* is actually an extreme version of McKeown's thesis, so termed by Ronal Bayer (Farmer & Nardell, 1998: 1014).

observed a steeper rate of decline in Minnesota, which by 1918 had achieved the highest rate of segregation in the United States of America, and where the government's efforts to isolate 'index' cases and identify contacts, particularly family members, was successful. Fairchild & Oppenheimer (1988: 1109) cautioned that Wilson and Newsholme's arguments were not unassailable. Nineteenth-century mortality data are incomplete. Also, decline in mortality data does not automatically translate into decrease in TB incidence rates. Neither Wilson nor Newsholme had any direct measures of the rate of segregation and neither controlled simultaneously for potentially confounding variables. Wilson also simplified Newsholme's position to that of a monocausal explanation for the historical fall of TB mortality rates: "*Newsholme believed ... that overcrowding within dwellings, urbanization, 'well being' (determined by wages, pauperism, and total cost of living), nutrition, and education about indiscriminate spitting and coughing had an impact on the TB death rate. Newsholme did not discount the importance of nutrition, wages, and housing; he simply argued that such factors lacked predominant influence.*"

Fairchild & Oppenheimer (1988: 1108) cited Newsholme's conclusion as follows: "*Segregation in general institutions is the only factor which has varied constantly with the phthisis death rate ... It must therefore be regarded as having exerted a more powerful influence on the prevention of phthisis than any of the other factors of which none has varied constantly with the phthisis death rate.*"

Detention of non-adherent TB patients

It remains an issue of contention whether TB patients who evade treatment should be forced into treatment, or even be imprisoned. A detention ward for noncompliant TB patients on an island in East River, New York, has been described to work '*spectacularly*', and to have '*saved the city, surrounding states, and the nation from an infectious disease calamity*' (Reichman & Hopkins Tanne, 2002: 149). Health officials in New York believed that the mere threat of detention encouraged patients to comply with less restrictive treatments. Oscherwitz *et al.* (1997) studied the detention of persistently non-adherent TB patients in California. The authors concluded unfavourably on the practice of detention since, compared with other TB patients, detained patients had four times the proportion lost to follow-up and half the proportion completing therapy in the customary time period. In New York, Gasner *et al.* (1999: 359) concluded equally disapprovingly on detention of TB patients: "*For most patients with [TB], even those with severe social problems, completion of treatment can usually be achieved without regulatory intervention. Patients were detained on the basis of their history of [TB], rather than on the basis of their social characteristics, and the less restrictive measure of mandatory [DOT] was often effective.*" The American Lung Association (2003)

acknowledged “that enforced management of an infectious patient who refuses to adhere to public health regulations deprives the individual of his constitutionally mandated personal freedom. But . . . courts agree that when all voluntary treatments that respect the rights of the individual are rejected by the [TB] patient, legal support for coercive alternatives should be available.”

3.2 South African account

“SANTA pioneered the provision of low-cost TB bed accommodation, combined with adequate nutrition and high quality medical and nursing care” (SANTA, 2003a).

The ‘*first*’ TB epidemic and attempts to control it

Available evidence is that the black and coloured population groups of South Africa are currently experiencing their first ever epidemic of TB. This is despite centuries of contact on the African shores with Phoenicians, Arabs and Europeans (Collins, 1991: 1). The 20th century TB epidemic in southern Africa is probably directly related to the influx of miners and artisans from Europe and Northern America. Collins (1991: 1) acknowledges that earlier TB cases were reported among the Hottentots⁶⁹, but adds that conditions for the spread of the disease among them were not ideal. Given the long association between man and TB, it may seem strange that available records indicate that the present epidemic of the disease affecting the black people of southern Africa is the first in their history. If this is the case ‘then we are presented with a rare opportunity to study closely the natural history of [TB] in virgin soil and the effects of the 20th century on the epidemic’ (Collins, 1982: 780).

In 1908 a district surgeon in Pondoland wrote about the rapid extension of TB as the result of infected mine workers returning from Johannesburg: “Time and again one Native returned from the mines infects almost the entire occupants of a hut previously quite healthy” (Collins, 1982: 782). Mine workers were exposed to silica dust, overcrowding in mine hostels, poor nutritional status and stress, all of which contributed to the development of TB (Edginton, 2000). Packard (1992: 104) draws attention to the fact that in contrast to the European experience, TB in South Africa did not descend on the working class as a whole. It rather fell heaviest on the black and coloured portion of the working class, ‘who within the peculiar confines of racial capitalism, were the most exploited segment of the labour force’. In 1992, only 1% of TB cases in South Africa were among whites. A 1979 estimation of TB incidence among

⁶⁹ The ‘Hottentots’ were the aboriginal inhabitants of the Cape.

whites was eighteen per 100 000, compared to a staggering 1 465 per 100 000 for blacks (Medical Officer for Cape Town in Packard, 1992: 104; 105).

The TB epidemic of South Africa mainly affecting the black population is the result of a profound change in their lifestyles over the last 200 years. Large-scale tribal warfare between 1818 and 1835 resulted in massive migration and started the drift toward white urban employ. In the late 19th migration of labour to the mines, and in the 20th century to industry, instilled the change of lifestyle of blacks with factors conducive to the spread of TB. From the very start of the epidemic, TB incidence was much more severe among black South Africans. Another major difference between the TB epidemic of South Africa and the earlier epidemics in Europe is that, whilst TB in Europe was primarily an urban-based disease, under the system of migrant labour that became the norm throughout South Africa, TB by the mid-1900s had become firmly established in the countryside (Packard, 1992: 104). This is because TB and other social problems were neglected in rural South Africa. In early 19th century Europe mass migration of rural people to city factories also brought about the hazardous work and living conditions that resulted in an increase in TB. However, as these conditions improved over the next several decades, TB declined. However, the *secondary phase of decline* as experienced overseas has not eventuated for blacks in South Africa.

The migration of the black population in South Africa took place in two distinctive phases: *'organised'* migration to the mines starting in the late 19th century and *'orderless'* migration to industry after the 2nd World War. The second wave resulted in shantytowns erupting around all large cities. The increase in morbidity due to all forms of TB in South Africa since it became notifiable in 1920 makes it clear that the increasing urbanisation exacerbated the epidemic. However, Collins (1982: 785) remarks of the *'hump'* commencing in the early 1950s and reaching a peak of nearly 400 per 100 000 population in the early 1960s, that it does not appear to be a natural phenomenon. Rather the *'hump'* may be due to more active case-finding, especially under the guidance of Drs. B.A. Dormer and F.J. Wiles using the 70 millimetre mobile X-ray units introduced in 1947: *"They roamed far and wide throughout South Africa and SWA⁷⁰, and many thousands of subjects were screened annually until mass X-ray surveys fell into disfavour some 10 years later. Inevitably, many new cases were diagnosed during these surveys. Dormer reported at the time that 'mass radiography offers so far the only hope of eventual control of [PTB]'. Perhaps routine*

⁷⁰ 'SWA' is the acronym for the former South West Africa, now Namibia.

miniature X-ray screening of mine recruits made an even greater contribution to the increasing number of notifications. This commenced in 1942 in Johannesburg at the recruiting depots of the WNL.A.”

Allocation of medical resources probably played a minimal role in determining the contrasting TB experiences of blacks and whites prior to the 2nd World War. Packard (1992: 43) advances two reasons for this: health resources were generally inadequate for all but the most affluent and differences in access to Western medicine were unimportant before the development of effective TB drugs in the late 1940s. The late 1940s was also when the apartheid regime came to power and right from the start failed to take heed of the health care needs of the black population. In the South African context it was among whites that biological resistance was encouraged by their rapid ‘*proletarianization*’, while blacks were largely migrant workers (first by choice and later by law), moving back and forth between their urban workplaces and rural homes. The improvement in white living and working conditions occurred far more rapidly than that of blacks. Even during the early industrialisation before the 2nd World War, political power lay primarily in the hands of white farming and commercial interests and governments such as that of Kruger⁷¹ had little concern with improving the health conditions of the rapidly increasing black labour force, and focused, instead, on the maintenance of ‘*order*’ (Packard, 1992: 44).

White workers, much more than their black counterparts, mobilised around industrial relations issues, and together with their greater representation in government after 1924, coerced capital into implementing a discriminatory system of wages and benefits. Packard (1992: 44) accounts how the emergence of the race bar in industrial relations lead to growing disparity in working and living conditions of the black and white proletariat and how white labour, capital and state came together ‘*in an uneasy alignment of political and economic interests which ensured that significant improvements were instituted in white working and living conditions*’. Black workers had much less success in compelling capital to implement any kind of betterment, let alone health reform. The migrant labour system that destabilised attempts to organise them in powerful trade unions, combined with lack of political power, greatly discouraged worker-driven health reforms. This history is important because it cautions us not to attach too much weight to the role of medical authorities, and in the case of TB

⁷¹ Paul Kruger was president of Transvaal (later known as the South African Republic) until 1900 (Cameron & Spies, 1986: 183, 210). ‘*Krugerism*’ was marked by emphasis of the independence of the South African Republic from Britain (Hauptfleisch *et al.*, 1991: 267).

control and the current research, to the role of segregation and hospitalisation, as compared to the large historical forces described above, especially in the decades before effective chemotherapy.

Table 23 Overview of the history of TB control in South Africa, 1875-2003

YEAR	DEVELOPMENT
1875-1900	Large numbers of consumptive Europeans (primarily English and Scottish in origin) migrated to South Africa hoping to be cured by the climate. This resulted in the congregation of consumptive immigrants in certain towns. These towns became focal vicinities from where the TB epidemic spread in South Africa.
1911-1912	The 1912 Tuberculosis Commission was established to look into the state of TB in South Africa. The Commission recommended tight control of the migration of ' <i>tuberculous</i> ', especially with reference to the town of Beaufort West. The medical officer of Bloemfontein, Dr. D.M. Tomory, in an annual report of 1911 noted that TB presented no problem among the white population, with only ten deaths from TB amongst a population of about 11 000. He also noted with concern, however, thirteen deaths among visitors from Russia, New Zealand, Wales and Scotland: " <i>I have seen cases taken out of the train and unable to walk, and straight to the National Hospital, to be tended in life and buried after death at the expense of a state and a town on which they have not the slightest claim ... Some die in outside rooms, in backyards among conditions favouring the transmission of disease to others in lonely misery ... Many hotels and boarding houses have rooms that have been infected and other people occupy the same rooms ignorant of the fact.</i> "
1911-1919	The Public Health Act of 1919 called for, ' <i>improvements in housing and sanitation, education, enforcement of precautions against the spread of the disease, the provision of facilities for early diagnosis of cases, dispensaries, hospitals and sanatoria</i> '. Small ' <i>sanatoria</i> ', not unlike guest farms, were ran by doctors and nurses exploiting the putative therapeutic potential of the Karoo air. Purceval Gibbon, in his 1911 novel <i>Margaret Harding</i> , uses the setting of a farm sanatorium in the Karoo to describe, amongst others ' <i>the seedy couple, the doctor and his wife from Clapham Junction who are in charge</i> '; some of the patients such as ' <i>a monocled clubman and an ex-army officer</i> '; and the conditions for patients: ' <i>the pervasive boredom of their daily existence, punctuated by class and personal conflicts, with fresh air the only treatment</i> '.
1920s-1940s	Policies resulting in undersupply or restriction of TB hospitalisation facilities for blacks continued. Such policies, which were initially developed in the mining sector, were based on assumptions such as that the ' <i>native</i> ' patient disliked hospital stay, was eager to return to his/her home and family, and in any case stood a better chance of gaining cure in the ' <i>healthful</i> ' surroundings of his/her rural home. Rather, the ' <i>unwillingness</i> ' of blacks to be hospitalised might have been explained by the high mortality suffered in hospitals. Moreover, the idea of black rural life as a "healthy reserve ... was little more than a myth by the 1930s, widespread malnutrition and other infectious conditions being pervasive in most rural areas. The returning TB patient, therefore, had very little to look forward to in terms of treatment and support and ... some 60 per cent of them were likely to die within two years of their return." Forced removal policies were designed to limit the spread of disease among blacks through improvements in their living and working conditions. The clearing out of slum areas in urban centres to ' <i>locations</i> ' on the periphery was based on a concept of ' <i>sanitary segregation</i> ', but did little in providing a healthy environment for those removed, despite legislation requiring the construction of alternative housing. The Medical Officer of East London (1931) observed: ' <i>segregation has resulted in overcrowded unhealthy slum areas in locations, hot beds of [TB] and venereal disease removed at some distance from the town, or separated from it, and under the eyes of officials alone</i> '. The Smit Committee of 1942 later agreed: " <i>Many of the houses being built for Natives under the housing Acts, themselves primarily designed to prevent or eradicate slums, are from the first day of their occupation overcrowded and therefore slums as defined by the second schedule of the Slum Act escape condemnation as such only by reason of the specific purview of the Act.</i> " In the 1940s large-scale migration of blacks to urban centres in response to the wartime economy and the collapse of the rural reserves, combined by continued unwillingness of the state, local authorities and capital to provide for the welfare of the growing black working class or to curtail high rates of inflation, produced a major upsurge in urban TB mortality. A renewed awareness on the part of many medical authorities and certain segments of capital and the state of the need for large-scale urban environmental reform, in order to attack the root causes of TB, came about. This was soon dampened by the onset of the apartheid regime, as well as by the discovery of TB drugs promising to eradicate TB through purely medical means.

YEAR	DEVELOPMENT
1948-1993	<p>National Party (apartheid) rule constituted increased government and private voluntary organisation efforts to control TB. Government expenditure on TB control increased steadily since the 2nd World War reaching R50 million a year in the early 1980s. Yet, the effectiveness of these efforts was reflected only as seen in the more or less nullification of TB among whites, while TB among blacks proliferated. Socio-economic disparities among race groups, the slum conditions in which blacks lived and often worked, and inequity in accessing health care largely contributed to South Africa's TB epidemic, despite the availability of effective treatment: "In short, efforts to attack the underlying causes of TB in South Africa after the Second World War did little to improve black living conditions, and represented a continuation, on a grander and ultimately more tragic scale, of the policies of exclusion that marked earlier control efforts." TB mortality rates did fall greatly since the late 1940s, as was to be expected with the introduction of effective TB drugs. Nevertheless, TB chemotherapy and BCG vaccination were only partially successful in preventing the further spread of the disease. TB incidence and morbidity actually increased in the 1950s and 1960s. A wide divergence between urban and rural health services occurred. Once a patient was relegated to a rural area his/her chance of receiving a full course of treatment declined sharply. By 1986, in Cape Town, 75% of patients were completing treatment, compared to a completion rate of only 25% in Ciskei clinics. In the former province of Natal urban clinics recorded a 68% 'compliance' rate, compared to only 28% in rural clinics. However, not all urban clinics were doing well in this respect. In Soweto, for example, only 21% of TB patients received 80% or more of their treatment. During apartheid, health services for the majority of the population were inadequate. The development of drug-resistance classically occurred with 'stop-start' treatment. The standard treatment was over a 12-18 month period in hospital on para-aminosalicylic acid (PAS), INH and streptomycin. Because services in the main were hospital-based, patients had to travel long distances to facilities, making treatment inaccessible and unaffordable. Drug supply in many areas was erratic. The factors contributing to the South African TB epidemic included poor living conditions, unjust laws that restricted legal movement, dangerous working environments for many, the practice of banishing those with TB to their original home, and poor health service provision in both city and country. Consequently resistance of the TB bacillus to various drugs emerged during the 1980s. This was not surprising since TB had been poorly controlled for decades. On the health front, as in all development fields, the 1970s and 1980s were also decades of growth of NGOs such as SANTA. Generally NGOs worked to ameliorate the plight of the dispossessed majority, advance democratic ideals, and monitor the human rights violations that flourished in this era. Foreign governmental and private anti-apartheid movement donors funded many of these NGOs.</p>
1994 onwards	<p>The new South African Constitution, hailed as one of the most progressive constitutions in the world, was adopted in 1996. Henceforth health sector transformation would be shaped by the negotiated political settlement as embodied in the Constitution. The Constitution delegates responsibility to all three spheres of government: national, provincial and local. In fact, the 'the major thrust of the health sector reform strategy of the South African government is decentralization of services from the national government to provincial and local governments'. In the sphere of TB control the effect of this decentralisation has also been felt. It has meant, amongst others, that even the smallest district hospital has become pivotal in the reorganisation of TB control services. In effect these hospitals are (also) now 'important', as also reflected in the tenets of the NTCP.</p>

Sources: Compiled from Edginton, 2000; Ember & Ember, 2001: 2055; Metcalf, 1991: 21; Packard, 1992: 53; Pillay, 2001; Republic of South Africa, 1996.

If we accept that European immigrants brought TB to South Africa with them, it may have been because South Africa, and specifically the Cape and the Karoo, were actively marketed as a health resort for consumptives. Metcalf (1991: 25) quotes an English newspaper during the 1890s:

“South Africa, the land of High Veldt and the Karoo! The land of soaking sunlight, and crisp dryness, and the cool night-wind! The land of elevated plains, which join the virtues of desert, for which sick men flee to Egypt, with the virtues of the mountain, for which they seek Switzerland! The Cape which cures consumption; the Cape of which is of Good Hope to all weak chests; the Cape which offers life and health and a career to the Englishman suddenly confronted by that modern absolutist, the doctor, with the cold sentence of death or exile!”⁷²

The establishment and later history of sanatoria in South Africa

Towns in South Africa that were popular destinations for consumptive immigrants included, amongst others, Beaufort West, Kimberley, Bloemfontein and Harrismith. These towns were reached through Cape Town as an entry point, although many consumptives on arrival in Cape Town were by such time too ill to travel into the interior. Several sanatoria that were built in the late 19th century in South Africa were concurrent with the growing sanatorium movement in Europe. The mining industry, on instigation of Cecil John Rhodes⁷³, supplied the capital for the building of a prestigious sanatorium outside Kimberley described as ‘a first class hotel for invalids’ (Fuller in Metcalf, 1991: 25). The unfortunate consequence of the migration of TB sufferers to South Africa was that by the end of the first decade of the 19th century towns such as Beaufort West and Cradock had the highest TB mortality rates of all South African towns. After the 2nd World War the government developed TB hospitals, run similarly to sanatoria, in major centres.

Table 24 Overview of historical events related to hospitalisation for TB, 1870-1986

YEAR/LOCALITY	EVENT
1870s-1880s/Karoo	Hundreds of European consumptive migrants settled in the desiccated inland regions of South Africa. “The threat which these imported cases of TB represented for the native-born populations of the colony, both black and white, was not appreciated prior to 1895.” Two reasons may be advanced for this: the infectious nature of TB was not yet widely accepted; and an absence of legislation requiring the registration of deaths made it impossible to judge the impact of TB on mortality rates.
1875-1900/Cape and Karoo	South Africa was marketed as a health resort for consumptives in Europe. The Union Steamship Company, for example, printed more than 50 000 copies of a book <i>South Africa as a Health Resort</i> . This book made special reference of the effects of the amicable climate in certain areas on consumptive invalids and also the best means of reaching those places.
1907-1920/Cape Town	The first accommodation (32 beds) was provided specifically for TB patients in the City Infectious Disease Hospital. It was the only such accommodation available in the Union of South Africa.

⁷² “The art of newspaper paragraphing is to stroke a platitude until it purrs like an epigram” (Don Marquis cited in Bullivant, 1998: 25).

⁷³ Reportedly, Cecil John Rhodes himself came to South Africa on account of TB. He became Premier of the Cape Colony in 1890 and went on to become a millionaire on the South African diamond fields. He is particularly known for his ‘imperial vision’ for South Africa (Cameron & Spies, 1986, 187).

YEAR/LOCALITY	EVENT
1924/Nelspoort (90 kilometres from Beaufort West)	<p>The few resources allocated by the state and local authorities to TB treatment and prevention (still) mainly went towards whites. The first public sanatorium constructed was the Nelspoort Sanatorium. Established as a gift from a Capetonian, John Garlick, this was the only example of a <i>'prototype sanatorium ... with the typical geographic isolation and self-containment, with power from its own station and food supply from farming'</i> in South Africa. Starting with 65 patients in residence, the sanatorium was maintained by the state. Patients were subjected to graduated activity in the fresh air and received APT and courses of calcium or 'sanocrysen' injections. Four 'rest hours of complete relaxation and silence' occurred daily. Patients also had access to recreational facilities such as a concert hall, gardening, croquet, miniature golf and a newspaper (<i>Rest Hour</i>). For the first few years of its existence the majority of patients of Nelspoort Sanatorium were among the white population, but over time coloured patients would become the majority. By 1936 the average number of patients ranged around 100, of whom slightly under one-half came from Cape Town. In 1947 the sanatorium had become so acclaimed that King George VI and Queen Elizabeth of England visited it. By 2004 the sanatorium accommodated mostly psychiatric patients and provided care to only two TB patients.</p>
1929/Pietermaritzburg	The Association for the Prevention of Consumption established the Sunshine Home for child contacts of TB families. The Association actively assisted in this respect for ten years until the South African Christmas Stamp Fund took over control.
1924-1939/South Africa	Half of the 112 beds available for TB treatment were allocated to whites. This was in total disproportion to the racial make-up of the South African population. Since local authorities would squabble over who was responsible for the treatment of particular cases even where beds were available, black TB patients continued to find it difficult to obtain inpatient treatment: "Lack of accommodation and unwillingness to bear the cost of treatment meant that the primary response of urban medical authorities to black TB cases was to report them to the Native Affairs Department for repatriation to their home area."
1930s/Durban	The King George V Silver Jubilee Hospital for TB was established. When the Natal Anti-Tuberculosis Association (NATBA) was formed, it incorporated into its memorandum the objectives of employing medical, surgical and other officers, nurses and staff, and the procurement of equipment for proposed sanatoria. NATBA influenced the government to build the King George V Hospital and later also acquired the Springfield Military Hospital for the same purpose.
1934/Pietermaritzburg	The Christmas Stamp Fund Preventorium was established only later to become redundant with the advent of modern drugs and progress in the management and prevention of TB. However, disappointed with the loss of 'these visible monuments to its dedication', the Christmas Stamp Fund continued to channel funds from stamp sales into other aspects of TB control.
1947/South Africa	SANTA was formed ⁷⁴ . The Department of Health approached SANTA, soon after its formation, to 'establish settlements for convalescent patients on the basis of pound-for-pound contribution towards capital costs and payment of a daily patient tariff'. Soon after their establishment these settlements were obliged to admit acute patients, and henceforth became known as SANTA centres. The intention with the erection of the first 35 of these centres was that they should serve for ten years only, but by 1991, 22 of

⁷⁴ "The foundation members of SANTA were 18 welfare organization [sic] concerned with the TB problem, who were present at the [Durban] public meeting ... held under patronage of the Minister of Health at the time, Dr Henry Gluckman. Traditionally since then the acting Minister of Health has acted as patron to the Association. The first chairman of SANTA was Mr. Charles James; a prominent Durban businessman who had also been instrumental in forming the [NATBA] in 1932 ... In 1948 a national secretariat was established in Durban. This secretariat was relocated to Johannesburg in 1951 to be close to the country's commercial and financial hub" (SANTA, 2003a).

YEAR/LOCALITY	EVENT
	these were still in operation, having then been upgraded from time-to-time.
1957/South Africa	Nearly three times as many black cases per available TB bed occurred as compared to that for white cases. The nationalist government tripled the number of beds available to blacks between 1952 and 1957, yet this remained inadequate and a massive backlog of patients requiring hospitalisation existed.
1954/Durban	Differences in the length of hospital stay for TB was the case - 6.2 months on average for whites and twelve months for blacks. Blacks, because their disease tended to be more advanced or serious, required longer stay in hospital than whites. With the improvements in chemotherapy in the 1950s, the average stay for whites further decreased to 3.6 months and that for blacks to 5.4 months. This also meant that the turnover time for whites was much faster than for blacks, exacerbating the disparity in numbers of beds available for each group.
1950s/Transkei	SANTA centres or 'settlements' were established by virtue of private donations and small provisions from the government. These centres were specifically set up to cope with ambulatory and convalescent patients whose illness was of a mild form. The Medical Superintendent of the Nessie Knight Hospital in Transkei wrote of the 'settlement'-idea that it takes no cognisance of 'the vast majority of Native sufferers who are quite unsuitable for admission to SANTA settlements and whose only hope is accommodation in proper hospitals where they must stay in bed for varying lengthy periods'. The lack of hospital accommodation for advanced cases prevented many blacks from gaining any treatment until such time they had infected others.
1950s/South Africa	The government began treating TB cases on an out patient basis rather than waiting for accommodation to become available. It was forced to do this as a consequence of the lack of hospital accommodation for black TB patients. Out patient treatment in South Africa at that time was largely a failure because 'even with [out patient] treatment, serious cases still needed to begin treatment within a hospital setting'. Also local authorities were unable to keep track of the large numbers of cases, let alone actually visit them. Contact tracing was inefficient or non-existent. All municipalities were not willing to provide the cost of providing rations to patients on treatment, even despite the government's offer to cover seven-eighths of this cost.
1955/Johannesburg and Durban	Geographic differences in expenditure on TB beds and staff transpired. Johannesburg, with twice the population, had only 300 TB beds compared to 2 000 beds in Durban. Johannesburg also had only one 'TB officer' compared to Durban's 18.
1980-1986/South Africa	The Brown Commission of Inquiry into Health Services estimated that nationwide only 25% of TB out patients was effectively treated and that 38% of all hospital cases represented relapse cases. The head of SANTA admitted that TB treatment 'had to a considerable degree been a failure'.

* See Photograph 1.

Sources: Compiled from Metcalf, 1991: 25; Packard, 1992: 53; Rosenthal, 1982; SANTA, 2003a.

TB treatment defaulting in South Africa

Historic factors impacting on TB treatment adherence in South Africa in the 1950s-1980s included that the country lacked adequate health facilities or staff to supervise treatment. The responsibility to achieve '*treatment-to-cure*' was left to patients themselves. Patients were traditionally labelled as '*defaulters*', implying that they were to blame⁷⁵. White medical authorities often attributed treatment

⁷⁵ In Ghana, Twumasi (1996: 43) stated that instead of blaming TB patients for non-adherence to treatment, TB programmes ought to accept the responsibility of treatment failures: "A greater understanding of risk factors for non-

failure to blacks' *'ignorance or native mentality'* (Packard, 1992: 50-54). Some of the factors contributing to non-completion of treatment in South Africa were common to out patient TB treatment programmes around the world. However, others were peculiar to the discriminatory political and economic realities of a country in which apartheid reigned (Packard, 1992: 50-54):

- Most blacks that contracted TB lost their employment. Almost all employers were simply not enlightened enough to allow infected workers to stay on the job.
- While black TB patients were eligible for disability grants, the amount that was provided was less than that provided to whites and inadequate for the needs of families with no other income.⁷⁶
- Disability grants were administered in a way that discouraged many black workers from obtaining them.⁷⁷
- Black breadwinners thus had little alternative to seek new employment as soon as they felt well enough to work, which was often long before cure set in. This would often mean finding a new job since their previous employer knew about their condition.⁷⁸
- Working TB patients or those looking for a job found it difficult to stay on treatment. Loss of pay was incurred and jobs lost when these patients attended clinics.
- Because TB patients were by definition *'unemployed'*, few clinics operated in the evenings or on Sundays to accommodate them. Contrarily, evening clinics were sometimes held in white areas. The transport expense implied to reach these clinics discouraged even those few blacks that contemplated attending them.

compliance would facilitate formulation of policies to provide solutions to non-compliance. This would result in diminished TB morbidity and mortality, a reduced exposure to infective cases by the rest of the community and a reduction in the incidence of [TB] nationally."

⁷⁶ In 1965 the grant for blacks was R3-50 per month plus R1-25 per child. As no support was available for spouses, a black family of four would thus receive R6 per month, while the poverty line (for a family of four) for Johannesburg was R53 per month. For a family of four whites the grant came to R56 (R31 for the patient, R16 for the spouse and R9 per child (Packard, 1992: 50-54).

⁷⁷ The National Party's policy of separate development denied the vast majority of urban workers permanent residence rights within the urban areas. There was a provision that prohibited the payment of pensions or disability grants outside the area in which a worker *'lawfully and permanently'* resided. This meant that the majority of disabled black workers had to leave the place where they were employed and return to a rural homeland in order to obtain inadequate support payments: *"For many workers who had not been born in an urban area, but who had worked there on a continuous basis for a number of years, such a move would eliminate their chance of obtaining urban residence under section 10(b) of the Urban Areas Act"* (Packard, 1992: 51). Moreover, the chances of securing treatment for the disease were severely reduced in rural areas.

⁷⁸ Another reason why the unemployed had to find work fast was that the Native Laws Amendment Act required of blacks residing in (*'white'*) urban areas to possess an employment contract, while failure to do so placed a TB patient at risk of being repatriated. Stratan of the Transvaal Peri-Urban Health Board stated that this often caused them to fall foul of the law: *"Native patients in urban areas receiving home treatment were often arrested by the police on their way to clinics because they were not in possession of a service contract. These Natives often spent several weeks in jail"* (cited in Packard, 1992: 51). Where local authorities prepared a special form stating that the individual was a *'tuberculous'* and incapable of bearing a service contract, this might have saved them from being arrested, but also effectively barred them from employment – a *'Catch-22'* situation.

- Not being eligible for the payment of disability grants and lacking a support network within the urban areas, migrant workers were at the greatest risk of defaulting.
- During the 1960s obtaining treatment became even more difficult as the apartheid regime became more serious about enforcing the Group Areas Act and tightened influx control. In Cape Town, for example, coloureds that had been (forcibly) removed from Mowbray were on average 5.3 kilometres further from the nearest hospital than they had been before '*relocation*'. The homeland system caused a further reshuffling of people as they were relocated in their '*appropriate*' ethnic areas. This further exacerbated effective treatment and follow-up.
- During the 1970s and 1980s homelands were transformed into '*national states*' each with its own health service. By 1992 there were no less than seventeen separate authorities ('*with minimal coordination among them*') responsible for health care in South Africa. Such fragmentation further increased the likelihood of patient default.⁷⁹
- For blacks working on white-owned farms the problem of uncoordinated treatment was even greater. These patients would visit hospitals in, for example, Gazankulu or Bophuthatswana where health workers lacked the authority to follow-up and supervise their patients' treatment. In white-dominated commercial farming areas there was no arrangement to ensure such follow-up and supervision.
- Non-completion of treatment meant that the number of chronic '*half-cured half-ill*' cases increased, as did the number of patients who developed resistance to INH. This augmented the national inability to control TB. By 1968, half of TB patients treated in many rural areas had an acquired resistance to INH. By 1978, primary resistance (INH and SM-resistant strains) occurred among 10% of blacks under treatment in Pretoria, and in 1986 among 15% of black patients nation-wide (compared to about 8% in other African countries with established treatment programmes).

3.3 Free State account

The history of hospitalisation for TB in the Free State began in all earnest in 1953 with the opening of the (SANTA) Santoord Hospital 20 kilometres⁸⁰ north of Thaba Nchu. This was followed in 1979

⁷⁹ A medical team working in Gazankulu in the then Eastern Transvaal, noted in 1984: "*Homeland borders and structures limit us and fragment services. Just over half of our patients come from Lebowa; but we may not follow them up at home, visit their families or organise ... supervised ambulatory care ... for them. We also cannot trace contacts or defaulters, or do case finding in Lebowa*" (cited in Packard, 1992). The use of different drug regimens by neighbouring health authorities resulted in a situation where a patient would be supplied with a different set of drugs when he/she returned home to complete treatment. This inhibited patient recovery and probably contributed to drug-resistance.

⁸⁰ See Photograph 3.

by the opening of the privately owned (Lifecare) Allanridge Chest Hospital outside Allanridge⁸¹, located 30 kilometres north of Welkom. In 1984 the privately owned Poloko Sanatorium in the south of Thaba Nchu began to function. All these institutions for intramural TB care have since closed down. Thus, NGO and private hospitalisation for TB in the Free State has been eliminated, barring the tiny proportion of TB patients who can afford medical insurance and care in (general) private hospitals. The role of the former NGO and private hospitals has now been taken over by public district hospitals and the new MDR-unit at Dr. J.S. Moroka Hospital⁸² in Thaba Nchu. Chapter 3 deals with the contemporary situation at district hospitals and the MDR-unit. In the current section the history of the three phased-out hospitals is considered.

Santoord Hospital⁸³

Just before its closure in 2002 the hospital accommodated 145 TB beds. Psychiatric patients were not treated at Santoord Hospital. The hospital was run for almost half a century from 1953 to 2002, was owned and operated by SANTA and was used exclusively for TB patients. Drug-susceptible patients were hospitalised for two to three months and MDRTB patients for seven to nine months. Some patients at the hospital were there for more than a year. At the time of the fieldwork, one female patient was at the hospital for almost three years. She was reported to be old, without family and physically unable to walk the eight kilometres from her home to the nearest clinic. The MDRTB patients were treated in collaboration with Prof. D.F. Pansegrouw from the University of the Free State. Discharge of MDRTB patients was once they had produced three consecutive negative sputa. After discharge they would return to Santoord Hospital every two months for check-ups by means of a commuter service provided by the Free State Department of Health. Reportedly, once Allanridge Chest Hospital was closed in 1999 the Free State Department of Health informed Santoord Hospital that it would have to provide MDRTB treatment only for a couple of months, but

⁸¹ Allanridge is a small mine town proclaimed in 1956. It is named after one Allan Roberts, the man who sunk the first prospecting borehole in the Free State (Nienaber & Le Roux, 2000: 35).

⁸² In his autobiography *Long walk to Freedom* Nelson Mandela relates that in 1949 the Youth League of the ANC sponsored Dr. J.S. Moroka (see Photograph 12) as an alternative candidate for the presidency. Moroka was an unlikely choice. He was a member of the All-African Convention that was dominated by Trotskyite elements, and he 'consistently referred to the ANC as the African National 'Council'' (Mandela, 1995: 131). Moroka was one of the wealthiest black men in South Africa. He went on to become the President-General of the ANC.

⁸³ Information gleaned from unstructured interviews with Mr. J. Heinrich (CEO, SANTA, Edenvale, 10 October 2003); Free State SANTA branch manager, Mr. B.A. Mapongwane (provincial manager, SANTA, Mangaung, Bloemfontein, 26 November 2001); Santoord Hospital centre supervisor, Mr. R.D.J. van Vuuren, and Santoord Hospital matron, S. Plekker (Santoord Hospital, Thaba Nchu, 11 November 2001).

at the time of the fieldwork this was still going on. The hospital was not physically designed to accommodate MDRTB patients in isolated wards.

Catering services were outsourced to Unique Catering at R8-21 per day (2000/2001). The wards at Santoord Hospital were divided into male and female, with MDRTB patients being accommodated in bays within the general wards. Ventilation and lighting within the MDRTB sections was poor. There were also issues in respect of the proximity of beds to each other and inadequate provision of female ablution facilities.

Santoord Hospital started to use the four-drug combination in January 2000. The hospital ordered drugs from International Healthcare Distributors and paid for such from its own budget. The Free State Department of Health adjusted the hospital's budget to take account of this. If the hospital did not have sufficient stock they would borrow from provincial hospitals and clinics. The hospital did not have a stock card system in place for either TB or non-TB drugs. While discharge forms were facsimiled to the concerned clinics, there was no follow-up to ascertain whether or not the patient reached the clinic.

In 2000 Santoord Hospital admitted a total of 550⁸⁴ patients of whom 376 were discharged, eighteen transferred, 47 absconded, and 106 died. In 2001 the total admission was 602 (442 males, 152 females, and 8 children) of whom 477 patients were discharged, eleven transferred, 23 absconded, and 105 died. The hospital tried to avoid giving patients' *'pass-outs'* as this was apparently when most absconding occurred.

Santoord Hospital's budget for 2002/2003 amounted to R7 632 756 and was allocated as follows: R3 730 905 (49%) for staff remuneration, R2 015 016 (26%) for stock, R695 676 (9%) for administration, R458 640 (6%) for professional/special services, R199 992 (3%) for replacement of equipment, and R532 527 (7%) for the management fee. The cost per patient per day for this period was R104-55. Remunerated patient days at Santoord Hospital increased by 38% from 1991 to 2000 (Table 25).

⁸⁴ The annual number of admissions was highest in 1997 at 710 patients.

Table 25 Remunerated patient days at Santoord Hospital (n), 1991-2000

1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
44 009	49 668	56 872	49 010	48 908	47 032	49 955	60 701	59 975	60 951

Source: Van Vuuren (personal communication, Santoord Hospital, Thaba Nchu, 11 November 2001).

Unlike most other SANTA hospitals around the country, a management committee made up of local branch members was not in place to manage Santoord Hospital. In fact, there seemed to be little contact between Santoord Hospital and the Free State SANTA Branch with its community activities. Ownership of the hospital vested with SANTA. The hospital was located 22 kilometres from the central taxi rank in Thaba Nchu reachable only by a gravel road. However, public transport to the hospital was not easily accessible. Reportedly, patients' visitors from as far away as other provinces sometimes, once reaching Thaba Nchu, were unable to complete the last leg of their journey to the hospital and had to turn back home to the great dismay of patients.

Doctor input at Santoord Hospital was minimal and doctors, reportedly, often did not turn up for out patient sessions arranged at the hospital and to which patients were transported from all over the Free State at the cost of the Department of Health. Doctor sessions totalled about four hours per week. Sessional radiographers and occupational therapists also served at the hospital. The hospital employed one chief professional nurse who served as matron, no senior professional nurses, eight professional nurses, ten enrolled nurses, and nine assistant nurses. The matron was emphatic that a shortage of nurses was the case – she urged the need for two senior professional nurses, eleven professional nurses, six assistant nurses, and two lay health workers. In addition to the centre supervisor, other *'administrative'* staff included one administrative officer, three senior clerks, two health advisors responsible for patient education, two drivers, four security⁸⁵ officers, five general labourers, one factotum/handyman, seven laundry workers, one seamstress, and eleven cleaners. All staff members at the hospital were full-time employees. In total 64 staff members were on SANTA's payroll at Santoord Hospital. However, according to the matron, if one would visit the hospital on the 25th (*'payday'*) of any month, you would find hardly any, if any, staff on duty.

The total nursing complement of 28 worked in three eight-hour shifts per day. Patients, reportedly (although not all respondents agreed on this), took their treatment under the watchful eyes of nurses on a daily basis according to the DOT principle. The matron identified the need for a nursing service

⁸⁵ See Photograph 6.

manager. She stated that the lack of such a post meant that she herself was constantly engaged in administrative duties, rather than, for example, in training programmes for the nurses.

The matron, in particular, was very disgruntled about both the working conditions at the hospital and its inability to implement the NTCP. She stated that communication problems abounded between her and the centre supervisor, between Santoord Hospital and the SANTA National Secretariat, and between Santoord Hospital and the Free State Department of Health. The matron was also dissatisfied with the long periods for which nurses were granted leave, e.g. at the time of the fieldwork one nurse was on paid leave (including maternity leave) for nine months. According to the matron occupational therapy and physiotherapy were not working well at the hospital at all. She stated that although the visiting occupational therapist left programmes in the occupational therapy assistants' hands, they '*did nothing*'. Also the patients, seemingly, were not interested in '*skills training*', which they likened to work and were quick to demand remuneration for. She also stated that the Free State Department of Health was not supportive of the skills training initiatives since it believed that if patients were well enough to work, they were well enough to be discharged.

Other problems voiced by the matron related to all levels and types of staff. She claimed that both the current and previous centre supervisors abused alcohol. There was justification to increase the proportion of nursing staff in relation to the number of other types of staff. This excluded the number of security officials of whom she felt there were too few given the regular theft of hospital goods (e.g. towels) by both patients and their visitors. Specifically female security guards were needed to frisk females suspected of theft. A perplexing problem voiced by the matron was that the hospital's beds were too low – she had to go down on her knees to work with patients lying in bed, and said that the other nurses probably did not do this. Generally, she was very antagonistic towards the nursing staff that she said were not interested in being trained and not committed to the betterment of conditions for patients at Santoord Hospital. In her view there was no discipline at the hospital and that this was due to the centre supervisor's interfering in her role as manager of the clinical and medical functioning of the hospital. Her complaints to the National Secretariat resulted in the hospital being visited by a senior human resource official of SANTA, but this brought no joy. This manager apparently in an open meeting stated that the Santoord Hospital centre supervisor was a '*super*' manager and that the matron had a '*communication problem*'. She stated that this belied the centre supervisor's inability to maintain discipline. Even the nurses, she stated, at night (when she

was not there) came on duty under the influence of alcohol (*'slingerdrunk!'*) and sometimes physically assaulted patients. She felt that Santoord Hospital could only have a future if all the nursing staff were replaced.

Allanridge Chest Hospital⁸⁶

This hospital functioned for 20 years, i.e. 1979-1999. It was and still is owned by Lifecare Group Holdings of whom Afrox Health Care and Real Africa Holdings are the major shareholders. Around 1997 the hospital had 330 registered TB beds. By December 1998 this had almost doubled to 650 TB beds in addition to psychiatric beds - the latter were phased out later. Most of Allanridge Chest Hospital's patients originated from the Goldfields and the northern parts of the Free State. Santoord Hospital, thereupon, supposedly mainly served the central and southern parts of the province.

Lifecare was *'very disappointed'* that the hospital was closed and, reportedly, tried everything to avoid that from happening. The company saw the decision by the Free State Department of Health as a *'financial decision'*. Lifecare was also informed that Allanridge Chest Hospital was too far away from the central Free State. The Department stated to the company that it could spend its resources better by retaining TB patients in district hospitals. The Department insisted that there was capacity in the district hospitals to perform this role. Lifecare was sceptical whether the Department took into account that TB patients were not to be hospitalised for a couple of days only, but rather for two months as was the case at Allanridge Chest Hospital. The company felt that district hospitals were orientated to *'getting beds open'*. The district hospitals were seen to be unable to accommodate patients for longer than five to ten days. They would also not be able to isolate infectious TB patients from other patients. This was described as especially dangerous in the case of MDRTB patients and where other patients were HIV-positive. TB, it was said, was one of the *'AIDS-defining'* illnesses. The most serious problem with the hospitalisation of TB patients was described as that of continuity of care. Once discharged from district hospitals no one would know whether the patient completed his/her treatment. There would be no proof of cure. Patients would *'disappear'* between the hospital and the district. Lifecare, thereupon, reportedly did it's best to ensure continuity of care by telephoning the

⁸⁶ Information gleaned from personal communication with a former medical officer concerned with TB care at the Allanridge Chest Hospital, Dr. A. Oosthuyzen (St. Helena Private Hospital, 27 October 2003) and with the Director Medical Services of Lifecare Group Holdings, Dr. M. Uys (Lifecare, Randburg, 21 October 2003).

clinic where the patient was supposed to go, a step they thought the district hospitals would not take trouble to implement.

Reportedly, Lifecare hospitals today offer, and in the time of Allanridge Chest Hospital offered, better medical care than SANTA hospitals. Unlike SANTA hospitals, Lifecare hospitals always have full-time medical officials. It is believed that the main reason why a TB patient is in hospital is because he/she has a complication and requires more care than can normally be provided by PHC nursing staff. Lifecare claims that it is *'very strict'*. Patients are not hospitalised solely for social reasons, rather they have to have a diagnosis of TB. Singular exceptions are, however, made in this respect.

Allanridge Chest Hospital had a special MDR-unit that on average accommodated 35-40 patients. The MDR-unit hospitalised patients for four-five months. At this unit, which was established at Lifecare's own initiative, Dr. A. Oosthuizen⁸⁷ achieved very good results in terms of cure rates, reportedly, much better than the general norm of around 50%. This doctor served at Allanridge Chest Hospital as a full-time employee of Lifecare. The hospital also had a full-time physiotherapist and a full-time occupational therapist. Two-thirds of the TB patients at the hospital were classified as Grade 2 or 3⁸⁸, meaning that they were very ill, and Lifecare was sceptical that they could be treated as out patients at PHC clinics and district hospitals. Many of these patients could not walk. At Allanridge Chest Hospital Grade 3 patients were accommodated in separate wards.

Allanridge Chest Hospital had its own laboratory for sputum microscopy and another in Pretoria where culture tests were performed in collaboration with the Medical Research Council of South Africa and Dr. B. Fourie. It is claimed that these laboratories worked under strictly controlled conditions and performed accurate tests. However, the hospital did not itself initially diagnose TB. TB patients were referred to the hospital when already diagnosed at PHC clinics or public hospitals.

Dr. Oosthuizen from Lifecare does not agree that ultraviolet lights are necessary in an MDR ward: *"Hier sit ons in die Vrystaat met die beste bron van ultraviolet lig gratis in die hemel: die son!"* She also did not believe in patients being allowed to sit around quietly (*'sit en wag vir die dood'*). She stated that the patients at Allanridge Chest Hospital would be encouraged to go out into the sun and even to play

⁸⁷ See Photograph 31.

⁸⁸ Grade 1 patients were so classified if *'mobile'*, as Grade 2 if *'semi-mobile'*, and as Grade 3 if *'the sickest'*.

soccer. She would educate patients to spit in the sun rather than in the shade and stated that this would effectively annihilate the danger of infection. She claims that her patients never failed to gain at least ten kilograms in weight. Furthermore, they learned to do carpentry and to fix shoes. The patients produced enough vegetables not only for their own use, but also to sell for personal profit. They learned that only a small plot of land is necessary to produce vegetables. Patients, reportedly, were very happy at Allanridge Chest Hospital.

Lifecare agreed with the chosen course of the Free State Department of Health's to follow the international trend not to hospitalise TB patients, but stated that the patients who it was hospitalising were patients with complications, also due to their unconfirmed but '*certain*' dual infection with HIV. Allanridge Chest Hospital served the Goldfields where dust and living conditions increased the transmission of TB. The dust, in itself, had an adverse effect on patients' immune systems. Therefore, Allanridge Chest Hospital was ideally located. However, in 1999 the hospital was closed down during a process that lasted six months. Lifecare conducted a survey to enable transfer of TB patients to appropriately located district hospitals. MDRTB patients were transferred to Santoord Hospital. Allanridge Chest Hospital is currently being rented from Lifecare by an NGO group from Odendaalsrus intending to provide HIV/AIDS care at the facility.

Poloko Sanatorium⁸⁹

As far as hospitalisation for TB in the Free State is concerned, it has, until recently, been the norm to hospitalise and isolate TB patients together with psychiatric patients. This was the case at both Allanridge Chest Hospital and Poloko Sanatorium. It is an open question whether this practice contributed to the stigmatisation of TB patients. Poloko Sanatorium operated from 1984 to 1997. Very little is documented about conditions at the sanatorium. It was first owned by Lifecare and later by the Bophuthatswana authorities in terms of a public-private partnership. By the time of its closure in 1997 it had 50 TB and 200 psychiatric beds. The hospital ostensibly mainly catered for residents of Bophuthatswana. It is unfortunate that the (by then long closed-down) Poloko Sanatorium in 2003 was still listed as part of the Free State psychiatric complex in an information pamphlet (Free State Department of Health, 2003) that the researcher collected from among those availed for public consumption in the Lebohang Building in Bloemfontein on 5 November. In this

⁸⁹ Information gleaned from personal communication with a former employee of the Poloko Sanatorium, Mr. E. Mojake (Dr. J.S. Moroka Hospital, Thaba Nchu, 10 November 2003).

pamphlet the sanatorium is called the Poloko Hospital and it is stated that it amalgamated with the Oranje Hospital in Bloemfontein. Ostensibly, it provided 387 psychiatric beds.

4. Conclusion

Chapter 2 emphasises the necessity to study the social aspects of a contemporary epidemic of TB which continues to flourish a century after the discovery of the causal organism and more than 50 years after specific and effective chemotherapy became generally available. This chapter reveals that the history of hospitalisation for TB over the two preceding centuries was chequered and was influenced by successive scientific advances. Even the near revolution of modern chemotherapy for TB did not render hospitalisation completely redundant and obsolete. But, more than just having functions as key institutions of medical treatment, hospitals also have intricate social roles and should also be assessed as such. Due regard should be paid to the hospital's liabilities towards its many interest groups.

Discordance was divulged as to whether hospitalisation for TB, in the multitude of forms it took historically, actually was beneficial in the fight against the epidemic. Since hospitalisation of TB patients implies their isolation from society, it is inevitably a matter of controversy. Incongruent views on the necessity and morality of hospitalisation for TB abound. In particular much critique has been levelled towards the hospital as an institution that exerts grotesque social control over the individual.

The sanatorium movement of the Western world lasted for 100 years up to the middle of the previous century. The sanatorium actually represented the basis of TB treatment before chemotherapy. Sanatoria were self-contained communities where death was an ever-present characteristic. A therapeutic concept of curability of TB by open-air living gave rise to TB sanatoria. The clinical efficacy of sanatoria has been challenged against the background of assessing the relative importance of medical and non-medical factors in the decline of TB in the First World. Historians also challenged whether the isolation of patients in sanatoria was useful in the preclusion of infection. This scepticism flows from observations that sanatoria did not proliferate until after Koch's discovery of *M. tuberculosis*. Yet mortality from TB began to decline long before then in countries such as Great Britain and the United States of America. There even is doubt whether

sanatoriums successfully isolated infectious individuals. Arguments in favour of health authorities' endeavours to hospitalise people with TB may broadly resort under Newsholme's pragmatic public health care approach, and those against under McKeown's public health nihilism.

In South Africa successive governments have been concerned with maintaining central control of hospitals. Apartheid resulted in a systematic entrenchment of the colour bar in the hospital sector, thereby contributing cumbersome dimensions to the already fragmented South African health care system. The previous two decades, and particularly the 1990s, saw the systematic dismantling of apartheid in hospitals. This was the start of a process to dismantle discrimination in the organisation of the South African hospital system – a process that is not yet complete, nor likely, it seems, to be so soon.

Blacks and coloureds in South Africa are currently experiencing their first ever epidemic of TB. TB in South Africa did not descend on the working class as a whole, but rather fell heaviest on the most exploited segments of the labour force. As recently as 1992, only 1% of TB cases in South Africa were among the white population. Another major difference between the TB epidemic of South Africa and the earlier epidemics in Europe is that, whilst TB in Europe was primarily an urban-based disease, under the system of migrant labour that became the norm throughout South Africa TB by the mid-1900s had become firmly established in the countryside. This is because TB and other social problems were neglected in rural South Africa.

Sanatoria that were established in the late 19th century in South Africa were concurrent with the then growing sanatorium movement in Europe, and were spurred by active marketing of South Africa as a haven for European consumptives. The unfortunate consequence of the inflow of consumptives in South Africa was the rapid spread of TB among the indigenous population.

Since it's rising to power and the concomitant emphasis on PHC the new Free State Department of Health is following the international trend of eliminating specialised institutions for intramural TB care. All three such institutions that characterised the TB hospital scene in the latter part of the previous century have been closed down. At least one of these institutions, Santoord Hospital, was suffused with organisational problems and appeared not to be able to adhere to the principles the NTCP. Thus, the history of non-state sector hospitalisation for TB in the Free State has largely come

to a halt. In Chapter 3 the newly emerging prominence of public hospitals in hospitalisation for TB comes under the loop.

Chapter 3 Hospitalisation for TB in South Africa: the emerging role of the district hospital

“Hospitals can rightly be regarded as the institutional heart of the South African health care system” (Van Rensburg et al., 1998: 236).

“[P]olicies may change with circumstances: what appears to be a low-politics issue (the closing of a hospital) may become a high-politics issue because of the actions of various interests, including the media” (Walt, 2000: 43).

1. Introduction

Health care systems in sub-Saharan African countries have to confront increasingly scarce resources. This quandary constrains these countries' ability to render health services of an acceptable quality to the majority of their people. Such inability is exacerbated by the extensive inefficiency of health care systems, especially within hospitals (Zere et al., 2001: 336). *“Prior to 1994 the South African health system was based on apartheid ideology and characterised by racial and geographic disparities, fragmentation and duplication and hospi-centrism with lip-service paid to the [PHC] approach” (Department of Health, 1999: 5).* Therefore the new Department of Health (1999: 3) set out to improve access to health care, advance equity, deal decisively with the HIV/AIDS epidemic and its ramifications, *‘stabilise the hospital sector’*, and adopt a multidimensional approach to ensure improvement in quality of care.

Chapter 3 considers the impact of changing health care policy in the South African health care system on hospitalisation for TB. It commences with an analysis of the somewhat awkward association between hospitals and PHC, and addresses the question as to what role hospitals have in PHC. Subsequently the hospital is contemplated within the context of an evolving district health system (DHS) in South Africa. This is of essence because South Africa *‘is one of the few countries in the world where wholesome transformation of the health system has begun with a clear political commitment to, inter alia, ensure equity in resource allocation, restructure the health system according to a DHS and deliver health care according to the principles of the [PHC] approach’ (Department of Health, 2001: 1).* In this respect the question is pondered as to how district hospitals may be *‘functionally integrated’* into the DHS. Finally, attention is drawn to specific international, South African and Free State policies with reference to hospitalisation for TB.

2. The hospital and primary health care

A vacuity of PHC as applied to TB control ere the democratisation of the 1990s

Until the new dispensation came about, TB control policies, expert advice and resources of the World Health Organisation and the International Union Against Tuberculosis and Lung Disease were not readily available in the country. Although the NTCP in some form or the other was in place since 1979 within the previous government's health care structures, the complexity of attempting to co-ordinate vertically controlled TB services for eighteen fragmented health authorities of “‘*affairs*’ for *different races, and for ‘homelands’, and ‘independent’ states*”, rendered it largely unworkable (Edginton, 2000:2).

Reinforcement of and dependency on PHC

The majority of South Africans always have been and remain reliant on the public health sector for their health care requirements. In terms of current policies they are required to access the system at a first level PHC facility, i.e. a mobile, satellite or fixed clinic or a community health centre (CHC). In many areas of South Africa, these PHC facilities indeed are the only available and accessible health services. Therefore, PHC providers bear a huge burden for the provision of health care in South Africa. Because of the dual role of PHC facilities as locus both for the provision of care and the regulation of access and utilisation throughout the public health care system, they are key in the real or perceived equity and quality of the system. The reinforcement of PHC is prominent among the policies and principles guiding the democratic transformation of South Africa. It forms part of a more comprehensive strategy aimed at rendering the provision, distribution and accessibility of public health care more equal and equitable across geographical, socio-economic and socio-cultural divides.

The practical intricacies of the transformation to PHC in Africa are many, e.g. it may be asked whether a well-functioning PHC system implies that less people attend hospitals? Indeed, this is what Zwart & Voorhoeve (1990: 711) found in rural areas of Ghana where “*fewer people attend the hospital if a community participates in the PHC programme ... When people from these communities attend the hospital they do so less unnecessarily than those from other communities*”.

Atkinson *et al.* (1999: 49) studied the health-seeking behaviour of the hospital patient from the perspective of both the health care system and the consumer/potential consumer. It seemed that patients in urban sub-Saharan Africa were bypassing primary facilities leading to congestion at hospital out patient departments. The main reason for this was assumed to relate to the poor quality and limited range of primary level urban health services. Drawing from a community study (potential health care users), a bed census (actual health care users), an urban health centre survey, and hospital out patient and inpatient surveys in Lusaka, Zambia, Atkinson *et al.* (1999) concluded that the actual reasons for substantial numbers of patients bypassing the urban clinics instead related more to easier access to drugs than to the technical quality of care as such. Thus, the implication for the health care system was that the congestion at hospital out patient departments would have to be addressed by improving the availability of drugs in urban PHC facilities.

In a South African study, Modiba *et al.* (2001: 189) found that six in nine '*HIV/AIDS users*' made use of hospitals, and specifically largely tertiary or '*quaternary*' hospitals, as their point of entry into the health care system. In fact, four in ten had subsequently visited two or more hospitals. Three of these four people had been admitted to specialised hospitals for treatment of TB and mental illness.

Hospitals become accountable as PHC providers

Explaining the role of hospitals in PHC, Ebrahim (1989: 50) drew attention to three '*commitments*' demanded by PHC, each representing a different philosophy and accompanied by a whole range of vested interests, including those of hospital administrators, specialists and elite groups. These were the areas where hospitals had to try and change:

- Traditionally hospitals reported in terms of numbers of patients served ('*total admissions, surgical procedures carried out, deliveries conducted, and so on*'), whilst PHC concentrated on the '*unreached*'.
- The hospital tradition was to concentrate on the '*unusual*' or '*interesting*' case, whilst PHC focused on '*what is afflicting the majority of the population*'.
- Because the care of the patient was taken over by the specialist, hospitals tended to create dependency, whilst PHC concentrated on '*enabling individuals, families, and communities to care for themselves*'.

There is disagreement whether hospitals are at all necessary in the PHC system in their present form. According to the '*functional*' approach, hospitals and community services, as organisational divisions of the health care system, best would be replaced as '*service programmes*' or subsystems of the health

care system. Indeed Malcolm (1994) viewed hospitals and PHC as *'incompatible organisational concepts'*. In terms of the functional approach services such as medical, surgical, child health, etc. would thus have both community and hospital-based components and PHC would be the *'infrastructure service'* underpinning all others. Malcolm (1994: 455) stated that PHC, which was meant to place the emphasis upon *'social justice, intersectoral integration and participation by communities in developing comprehensive and holistic treatment and preventative services'*, had not hindered the widening gap in health status between rich and poor countries and the increase in both communicable and non-communicable diseases: *"Health systems in all countries continue to be dominated by hospitals and provider groups with priorities largely determined by increasing demands and expectations for tertiary and high technology services."*

Van Lerberghe *et al.* (1997: 800) noted that as PHC and its push for rural coverage and participation got under way *'in an uneasy association of development technocrats and governments, donor agencies and NGO militants'*, it was also a time of discredit for the two traditional health care delivery models in Africa (i.e. disease control programmes and hospital-based curative care). The former was too expensive, often ineffective and did not respond to the demand for care. The latter (hospitals) was accused of obvious inaccessibility seeing that they were located in towns and cities and mainly served urban communities: *'there is a distance decay in hospital utilization, a phenomenon first described in the 60s, but also a social gradient: the health centre is for the peasants, the hospital for the urban elite'*. According to Van Lerberghe *et al.* (1997: 800) improving access to hospitals was no solution in the 1960s and 1970s since these facilities were already overburdened with work and it became increasingly apparent that the care that they were providing could, in fact, be provided cheaper and *'even better'* at the peripheral level. The large tertiary care hospitals consumed *'the lion's share'* of resources, as illustrated in Ghana where the 1% of care provided by tertiary hospitals consumed 40% of health expenditure (De Kadt & Segal in Van Lerberghe *et al.*, 1997: 800).

Sociological perspectives on the shift of emphasis from hospital to PHC

Foucault identified the emergence of two distinct trends in medical practice: *'medicine of the species'* and *'medicine of social spaces'*. Both these trends directed attention away from institutionalised (hospital) health care provision. In terms of medicine of the species, the human body became an object of study and observation in order that physiological processes could be demystified and brought under

medical control: “Physicians perfected their so-called clinical gaze⁹⁰, allowing them to observe and perceive bodily functions and dysfunctions within a standardized frame of reference”⁹¹ (Cockerham, 1992: 4). Medicine of social spaces, thereupon, focused on prevention of disease and implied much greater government involvement in regulating daily life in terms of public hygiene. Human health became a subject of regulation of by civil authorities (and their physician advisors). Sociological explanations of the shift towards community care in the United Kingdom and the United States of America have focused mainly on psychiatric care and mental illness (Box 3).

Box 3 Sociological explanations for the shift from hospital to community care

‘Therapeutic’: In terms of this explanation emphasis was on the contribution of drugs (e.g. psychiatric drugs), which appeared in the 1950s. Patients were now able to live in the community while undergoing treatment. Criticisms of the adequacy of the *‘liberal-scientific’* explanation included that the population of beds (e.g. psychiatric beds), were declining before chemically synthesised drugs were introduced and that the effectiveness of the drugs (e.g. psychiatric drugs) had been overestimated.

‘Economic’: It was suggested that care in the community provided a cheaper alternative to long-stay inpatient care. The Marxist variant of the economic explanation reasoned that large state investment in social institutions threatened the interests of capital. De-institutionalisation in response to *‘segregative modes of social control’* were said to be more costly and difficult to justify. In the United States of America *‘the net effect of the closure of large institutions has been a neglect and ghettoization of those people with mental illness’*. A criticism of the economic explanation was that cross-national comparisons had indicated that there was no correlation between financial crisis and reduced rates of institutionalised care. Also, some questioned the extent to which community care was the cheaper alternative.

‘Medical’: In terms of this explanation the content of medical knowledge itself was examined. In the case of psychiatry account had to be taken of the transformation of psychiatric knowledge which, in turn, was inextricably related to psychiatric practice. In the hospital the central object of focus was the patient’s behaviour. Nursing policy in psychiatric wards and assessment of patients focused on activities of daily living. Behavioural scales were concerned with such *‘ubiquitous’* aspects as the management of money, personal bodily care and clarity of speech. But, clearly the best place to assess normal behaviour was the *‘normal setting’*, which necessitated an extension of psychiatric practice into the world *‘outside’*. The expansion of behaviour therapies had involved the *‘psychiatrisation of new problems’* and the *“differentiation of the psychiatric population. Psychiatry has become concerned with the whole domain of mental health and is no longer concerned only with mental illness, the potential for which can only be realized within the community”*.

Source: Compiled from Nettleton, 1995: 244-247.

The hospital, patient rights and community involvement

In 1996 the National Progressive Primary Health Care Network undertook to establish the potential role for communities within a decentralised hospital management system in South Africa.

⁹⁰ “The doctor’s perception is key, and an unobservant doctor is the worst failure. To see it all is to be a perfect doctor, where earlier definitions might have stressed the doctor’s actions” (Fillingham, 1993: 67).

⁹¹ Ernst van Heerden in 1961 described the medical examination cynically (cited in Opperman, 1973: 285):

*Sy hand skryn bitter deur my vel
en skroei so ver hy voel,
hy teken kruisies soos hy tik:
teikens vir die koeël.*

International experience suggested four preconditions to be met to enable community involvement in health (National Progressive Primary Health Care Network, 1998): '*political commitment*', '*reorientation of health professionals*', '*development of self-management capabilities of local communities*', and '*a socio-economic situation in the country conducive to development*'. The National Progressive Primary Health Care Network (1998) outlined the many benefits to be gained by actively involving the community in the health care system, i.e. this: '*realises human rights*', '*builds self-esteem*', '*encourages a sense of responsibility*'; '*ensures the appropriateness of health services for a community's needs*'; '*develops a relationship of trust and empathy between providers and consumers*'; '*encourages a sense of ownership through participatory decision making*'; '*creates political awareness*'; and '*ensures accountability of health care workers and managers to the communities that they serve*'.

However, international experience has shown many failed attempts to involve community members in matter of health and health care. One reason for this is that medical officials and health teams have not appreciated the value of community involvement. In South Africa the *Health Sector Strategic Framework, 1999-2004*, as one of its five strategies to give effect to hospital decentralisation, requires that effective hospital management boards should be made possible by the introduction of legislation to ensure that such boards have the necessary authority over specified strategic development issues (Department of Health, 1999: 16).

Drawing from experiences in workshops and hospital board meetings in ten hospitals in the Eastern Cape, the Equity Project compiled detailed *Guidelines to strengthen community involvement in district hospitals and to make hospitals more district friendly* (Bennett *et al.*, 2001: 3). The authors stated that hospital boards originally were established in a time when the provinces were larger⁹², the '*independent states*' still were in existence, PHC was not comprehensive and integrated⁹³ within district health services, boards were not representative of hospital catchment areas, and board members served for long periods.

⁹² Before the new dispensation South Africa had four provinces (Cape, Natal, Orange Free State and Transvaal) as opposed to the current nine (Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West and the Western Cape).

⁹³ The drive to integrated PHC is an involved process, i.e. the '*practical approach to lung health*' in South Africa (PALSA) is an integrated approach to PHC that aims to improve TB case detection by promoting holistic management of patients attending PHC clinics with respiratory symptoms. This approach is necessitated by the daunting reality that respiratory symptoms account for approximately one in three attendees in PHC in the country. "*PALSA...encompasses evidence-based guidelines for diagnosis and treatment of priority respiratory conditions (TB, Acute Respiratory Infections with the focus on pneumonia, and asthma/COPD), extracted key messages incorporated into print and graphic materials useful to frontline providers, a training programme for front-line nursing practitioners (PCNPs) including training materials and scripts, and a training programme for the trainers of the PCNPs. It is aimed at real world settings, with all their limitations, and is designed to integrate completely and unobtrusively with existing clinical, training and managerial procedures of the health services*" (Fairall, 2003a).

Subsequently numerous changes have occurred *'with new attitudes, new more decentralised management and a more precise concept of PHC and the services that should be rendered at different levels of care'*. Bennett *et al.* (2001: 3) described the ideal scenario of a hospital board constituted by representatives of community organisations. They participate in terms of their contribution of time, labour and governance. They serve on a voluntary basis and *'foster activities together with hospital management, which meet community needs [and] are also actively involved in their organisation's activities'*. In four districts of the Eastern Cape the authors identified issues of concern to hospital boards and which community representatives thought they could help management with by providing support and advice (Box 4).

Box 4 Aspects of hospitals identified as most important by communities in the Eastern Cape, 2001

- Prevailing conditions in hospitals: *'the atmosphere of happiness (which is probably related to staff morale)'; 'safety for themselves or family'; 'openness of hospitals for relatives' visits'; 'participation in care of children'; 'food, cleanliness, the environment and hospital grounds'*.
- Quality of care: *'so that patients really get better'* - concern about critical times such as admission, discharge and deaths.
- Referral: *'link with the clinic and referral to the hospital and back referral of information'*.
- Finance: whether the money allocated is well spent and whether the hospital can raise more money.
- Community involvement: The ability of the hospital to inform communities about health.

Source: Bennett *et al.*, 2001: 3.

The guidelines of Bennett *et al.* (2001) delineate the many and complex processes necessary to produce hospital boards of repute, boards that have significant impact, and that are in accordance with legislative and policy guidelines. It is clear that such a process involves substantial education and general discourse among and between the hospital and the community. The process rests on the principles of community involvement in and ownership of the very process of establishing a board. The point of departure is that there is a *'need'* for community representation on a hospital board: *"It is through community representation on hospital boards and their guidance that new policies can be formulated which reflect community needs."* Therefore, the functions of the community representatives on the board are to *'as one element of the governance of the hospital'* be *'advisory and supportive'* (Bennett *et al.*, 2001: 4).

These guidelines further make it clear that appointment to the hospital boards should be in accordance with provincial health legislation and should take place by means of nomination by different forums or committees to the MEC for Health for consideration. The MEC ratifies the appointment of, amongst others, representatives from a wide range of existing community and development forums, community health committees, community-based organisations (CBOs), NGOs, civic associations, youth structures, faith-based organisations (FBOs), school governing

bodies and trade unions. The local council or Executive Committee nominates local councillors or members of legislature. Members of the board are from the districts served by the hospital through its referral system. Hospital management serve on the board *'ex officio'*. Subcommittees can be formed for matters such as research, finance, evaluation or training. Members are not to represent political parties: *'they are selected for service to community interests'*.

Hospitals are huge assets of the provincial health departments, and these departments, amidst much greater emphasis on community involvement than under the previous regime, try to maintain tight control over hospitals. It is also to be appreciated that the provincial MEC for Health is the elected spokesperson of the majority of the provincial population. Seen thus, political influence on hospital boards' composition, powers and operation, is just another way of assuring that community needs are represented in hospitals (as well as the interests of the government). By this definition the hospital boards of the previous regime could not have represented *'the people'* and could also not be defined as means of meaningful community participation in health care provision.

Hospital patient experience

Cockerham (1992: 220) described the hospital-patient role critically: *"While hospital services are oriented toward a supportive notion of patient welfare, hospital rules and regulations are generally designed for the benefit of hospital personnel so that the work of treating large numbers of patients can be more efficient and easier to perform. Consequently, the sick and the injured are organized into various patient categories (maternity-obstetrics, neurology, orthopaedics, urology, paediatrics, psychiatry) that reflect the medical staff's definition of their disorder and are then usually subject to standardized, staff-approved medical treatment and administrative procedures."* This author further noted that, while standardising patient care resulted in increased organisational efficiency, a prominent sociological theme of the hospitalisation experience was that of depersonalisation. While hospital personnel may not have expressly or intentionally made their patients feel depersonalised, the organisation of work in a hospital favoured rules and regulations that reduced patient autonomy and encouraged patient receptivity of the hospital routine. The work situation itself (such an intensive care ward) *'generates pressures of a dehumanising nature as a result of staff attempts to cope with inherently intense psychological pressures'*. Depersonalisation or dehumanisation was also brought about by, amongst others, the patient's subjective experience of feeling sick, *'stripping'* (*'when the hospital systematically divests the person of ... past representations of self'*), a lack control of resources (ranging from toilet paper to information about one's condition), restriction of mobility (*'even the ability of patients to*

move about is supervised and controlled), the development of conforming or deviant attitudes, and *'the sick role for hospital patients'* (Cockerham, 1992: 222).

Core functions of hospitals in relation to PHC

Edginton (1997: 1041) warned against being carried away by *'academic desire'* to study the sociological aspects of TB: *"we should refocus on the obvious, which is to manage patient-centred services and to relieve poverty. There remain insurmountable barriers to effective biomedical care for most people with [TB]"*. Ebrahim (1989: 50-51) suggested three core functions (each in itself comprehensive) for hospitals in support of PHC:

- Direct support for PHC through a system of referral and counter-referral after cure, training of front-line health workers, providing technical and logistic back up and advice on problems, and managerial support and planning and organisation of the health care system in the catchment area.
- Development of community health development programmes in the catchment area.
- Raising awareness among health personnel working in the hospital, as well as those in the community, through regular workshops and in-service courses.

Hospital vs. ambulatory care for TB: is it one or the other?

Following the demonstration of the high potency of chemotherapeutic drugs in ambulatory patients, routine hospitalisation for TB - once a standard management technique for the control of TB patients around the world - had by the late 1980s to a large extent been replaced by ambulatory treatment. Evidence was that TB patients could be cured without ever having to be admitted to hospital (Crofton *et al.*, 1999: 156). This, however, could suffice only where supervision of ambulatory treatment were of a high standard. The World Health Organisation (1988: 25) was in favour of this and recommended that the *"financial resources and manpower available for [TB] control [should be] used to organize efficient and widespread ambulatory programmes rather than support hospital treatment"*. Routine hospitalisation for TB patients was seen to prevent patients from leading socially active lives. Hospitalisation for TB was thought to create practical and economic problems for both patients and their families, as well as for TB control programmes. The invariably limited inpatient capacity of hospitals was also thought to hinder the expansion of case-finding activities. Importantly, the World Health Organisation (1988: 25), nevertheless, acknowledged the need for hospitalisation of TB patients if their clinical status would require it, while adding that they should be discharged as soon as they had improved sufficiently to continue treatment as out patients. Patients in the initial intensive phase of treatment could also be hospitalised if their homes were so far from the health

service or so inaccessible that supervision of treatment was unpractical. Finally, special hospital wards for TB patients were not judged necessary, although the location of TB beds in a specific area of the hospital was seen to be advantageous, because it could simplify the management of patients, including the full supervision of chemotherapy. The World Health Organisation (1988: 25) argued, however, that the need for supervision of chemotherapy in itself did not justify hospitalisation: “*Supervised ambulatory chemotherapy should be organized as the first priority in national [TB] programmes.*”

From Mutsau’s (1998: 89-90) analysis it was clear that increased medical staffing at PHC level does not automatically imply significant amelioration in the quality of primary level service ‘*despite [the doctor’s] knowledge and skills, he would still refer to a more equipped facility with an in-patient department*’. At the same time upgrading equipment and drug supply at the PHC level alone would not improve quality, as lack of skills would not allow appropriate use of such equipment and drugs. The alternative suggested by this author was to compromise these concepts and implement a strong and logical referral system to ensure a valid and operational link between primary and secondary level of care.

3. The district health system, district hospital and hospitalisation for TB

Development of the DHS spurs a role for the district hospital

Although the district hospital is broadly recognised as part of the ‘*PHC Package*’⁹⁴ in South Africa, the functional integration of the district hospital in the DHS is perhaps not as well defined, understood and appreciated as that of the PHC facility. Van Lerberghe *et al.* (1997: 800-801) discussed the emergence of the notion of the district hospital in sub-Saharan Africa as a reaction to the ‘*blunt critique of the hospital-centred approach*’. During the 1980s this critique became more selective: ‘*while hospitals per se are part of the problem, small first referral or district hospitals are certainly part of the solution*’. While the clinic/health centre gradually emerged as the mainstream operationalisation of PHC, it could not operate properly and was unable to respond to health care needs and demands without backup by a (first referral or district) hospital. Thus the PHC movement ‘*itself*’ put the issue of the first referral hospital, and its place in the district, on the agenda. Van Lerberghe *et al.* (1997: 801) described the

⁹⁴ For the hospital’s role in the PHC see ‘*A district hospital service package for South Africa*’ (Department of Health, 2002). For the PHC facility’s role see Department of Health (2001a and b). In 2003 the CHSR&D conducted ‘*mapping*’ of the delivery of key PHC programmes among PHC facilities in the eight Urban Renewal Nodes of South Africa (Engelbrecht *et al.*, 2003; Heunis *et al.*, 2003; 2003a; Janse van Rensburg-Bonthuizen *et al.*, 2003; 2003a; Meyer *et al.*, 2003a, 2003b; Summerton *et al.*, 2003).

common perception of the essential features of a district hospital: 140 beds; 3-4 doctors; obstetric, gynaecological and basic surgery; medical inpatient care; out patient referral department; laboratory; and blood bank. This was an empirical choice based on non-systematised field experience and a limited number of descriptive studies, as was, seemingly, the rationale for the renewed interest in the district hospital generally. According to the authors: *“Policy was not formulated on the basis of documented hard evidence or scientific proof, but emerged from field experience and practice, from common sense and a consensus among decision-makers that the obvious demand and need cannot be ignored.”* Thus the case for district hospitals seemingly rested on a number of *‘unproven assumptions’* about the cost and effectiveness of a model with two complementary levels of care.

Out patient departments at district hospitals often take on the characteristics of a clinic. Mutsau (1998: 87) described three categories of patients who visited the out patient department of the Tsholotsho District Hospital in Zimbabwe:

- Patients covered by a rural health centre and who were referred to the out patient department by this centre.
- Patients living around the hospital and who had no access to a rural health centre and used the out patient department for first line health care of both a curative and a preventive nature.
- Patients who had access to a rural health centre, but who came directly to the out patient department for first line health care anyway.

To cater for these needs the concerned out patient department, thus, included first line services (e.g. curative consultations and mother and child health), casualties (e.g. emergencies and resuscitation room), referral consultation, as well as specialised services (e.g. X-ray, laboratory, dentistry, psychiatric and TB review, and eye clinic). This resulted in two main sets of problems in the health district:

- Lack of conformity: *“Patients are not handled in the same manner throughout the district. Amongst two patients with a same problem, the one in the hospital [out patient department] is likely to have more investigations, to be treated with more sophisticated drugs, and to be referred more often to a doctor.”*
- Lack of continuity and efficiency in the use of skills and qualifications: *“A referred patient is a patient who has been seen by a nurse at [rural health centre] level at a previous stage. This, however, was not appropriately valued at the hospital [out patient department]. Indeed, a referral patient is seen again at hospital level by a health worker of a same qualification as the [rural health centre] nurse”* (Mutsau, 1998: 87-88).

For this author the ideal situation would have been one whereby any health-related problem would be attended to with as little delay as possible in an institution and by staff skilled to manage that problem, equipped to do investigations in order to decide upon the appropriate management, supplied with appropriate drugs to treat the patient and, if the need arose, upgraded in terms of staff, equipment and space to offer specialised technical care. This ideal was further to be integrated with the ideals of offering health services as closely as possible to the people, and of services that were acceptable to them *'psychosocially'*, as well as being equitable in regard of accessibility and affordability.

Strachan *et al.* (2001: 227) found in a survey among hospital superintendents in South Africa that of all the new national health policies, the most positive aspects for them were the PHC approach and the development of the DHS. According to Barron & Asia (2001: 17) a number of crucial milestones had been reached in entrenching the DHS concept in South Africa. These included, amongst others, the National Health Bill being published for comment. The Bill had advanced progress towards a DHS, but also still contained areas of confusion and did not clarify the roles of the various parties. The DHS could provide an antidote to the dysfunctional structural fragmentation of authorities and services and decrease, amongst others, the over dependence on hospital-based care. Ruff (1997: 59) noted that while health sector reform had focused on the development of the DHS and, due to the fact that most available funding remained tied up in hospitals, *'it has increasingly been evident that the DHS development is integrally linked to successfully reforming the hospital sector'*. This would imply lesser resources for hospitals and addressing racial and geographic disparities in health, while simultaneously improving clinical care.

McCoy & Engelbrecht (1999: 131) stated that the DHS was the means, not the end: *"The goal is the provision of an equitable, efficient and effective health service that is based on the [PHC] approach."* The authors defined the role and the relationships of the district hospital in South Africa as follows: *"District hospitals should form an important and integral part of the DHS. They are crucial for providing support to [PHC] services and for providing basic level one hospital services such as Caesarean sections and basic paediatric in-patient care."* They described as positive that the importance of district hospitals for effective PHC was beginning to be recognised in South Africa, and that several initiatives to improve the quality of care in district hospitals had begun, including training courses for superintendents, defining a core package of district hospital services, and improving the information systems of hospitals. McCoy & Engelbrecht (1999: 137) also noted, however, that in some provinces there was a tendency to remove

district hospitals from the umbrella of health districts leading to an artificial divide between (first level) hospital services and primary level care. The protagonists of this view ostensibly argued that this was necessary to avoid clinics and CHCs being '*dominated*' or '*exploited*' by hospitals. This could perhaps be called the '*clinic-centric*' approach. Further support for '*separation*' may have come from local government who could have been unwilling to take on the '*full basket*' of district health services that obviously included district hospitals. While acknowledging that '*hospicentric*' health districts needed to be avoided, McCoy & Engelbrecht (1999: 137) stated that separating the management of hospitals from PHC was not the solution: "*Separation will aggravate the division between two symbiotic components of a single system as well as potentially blocking the ability of district health managers to use hospital resources in support of district and PHC development.*"

Workload of district hospitals⁹⁵

The continued role of district hospitals in PHC is reflected in their sustained high workload (Table 26). Among the district hospitals in the study areas of the Joint Free State TB Research Project in 2000, Dr. J.S Moroka Hospital had the highest number of beds in use and the longest stay in hospital. Nevertheless, at this and other district hospitals bed occupancy was well below 50%. In fact, this low bed occupancy was one of the justifications for such hospitals also to provide for the hospitalisation of TB patients, rather than continuing the outsourcing of such care to NGO and private hospitals in the Free State.

⁹⁵ The Free State Department of Health (2003) currently operates 27 district hospitals: Kroonstad Hospital Voortrekker, Botshabelo Hospital, Diamond/Diamant Hospital, Dr. J.S. Moroka Hospital, Elizabeth Ross Hospital, Embekweni Hospital, Itemoheng Hospital, John Daniel Newberry Hospital, Katleho Hospital, Mafube Hospital, Mantsopa Hospital, Matlakeng Hospital, Medovs Sameday Surgical Centre Hospital, Metsimaholo Hospital, Mohau Hospital, Nala Hospital, National Hospital, Nketoana Hospital, Parys Hospital, Phekolong Hospital, Phumelela Hospital, Phuthuloaha Hospital, Stoffel Coetzee Hospital, Thebe Hospital, Thusanong Hospital, Tokollo Hospital, and Winburg Hospital.

Table 26 Workload of district hospitals in the study areas, 2000

HOSPITAL	NUMBER OF PATIENTS ADMITTED	MEAN NUMBER OF BEDS IN USE	BED OCCUPANCY RATE	MEAN STAY IN DAYS
Odendaalsrus Hospital (Goldfields)	9 264	119	50.2	2.4
Virginia Hospital (Goldfields)	4 520	117	37.9	3.6
Elizabeth Ross Hospital* (Qwaqwa)	7 436	96	32.3	1.8
Dr. J.S. Moroka Hospital (Thaba Nchu)	6 063	240	42.3	6

* See Photograph 10.

Source: Van Rensburg & Redelinghuys, 2002.

Functional integration of the district hospital

The Albany Project for Functional Integration in the Eastern Cape has been described as a model for district functional integration (Toomey, 1999). The *Albany Project* monograph is illustrative of the fact that DHS development is not only dependent on national policy-making, but actually leaves room for much to be done at the district level. In describing a health district, Toomey (1999: 9) stated that it was usually served by a district hospital *'which receives referrals from stationery clinics and mobile clinics throughout the district'*. For this author functional integration implied collaboration by different health authorities to ensure rationalisation, sharing of resources, doing away with duplication, and improving efficiency in the rendering of the PHC Package in a district.

The hospitals of concern to the Albany Project included the provincially run Day Hospital (operated by Settlers Hospital) in the Grahamstown sub-district. It provided curative care, while the medicines it prescribed had to be collected from the district surgeon at a different site. Day Hospital was also associated with long waiting times for patients. How did functional integration improve the situation? Structural changes negotiated and instituted by the local authority and the provincial health authority were geared to strengthen the functional integration of both local authority clinics and the provincial Day Hospital. Scheduling changes were investigated to distribute patient flow more evenly throughout the day. For the local authority clinics this meant moving preventive care services to the afternoons wherever possible. For the Day Hospital it meant extended hours in the afternoon to enable the shifting of some of the morning patient volume to the afternoons. It is interesting to note that functional integration for the provincial hospital meant not down-scaling of services, but rather simply rescheduling existing services to ensure more appropriate workflow. A further implication of structural integration for the hospital was that it's doctors was required to make regular visits to PHC

(local authority) clinics. In the Albany Project this was done to decrease the number of hospital referrals from local authority clinics to the Day and Settlers hospitals. Nevertheless, Day Hospital was being used increasingly as a referral centre, which was, according to Toomey (1999: 47), “*in keeping with the district referral system concept. This relieves pressure on the [local authority] clinics and must be a continued strategy, supportive of functional integration efforts.*”

The Initiative for Sub-district Support (Bennett *et al.*, 2001: 17) listed the features of a well-functioning district hospital (Box 5).

Box 5 Features of a well functioning district hospital in South Africa, 2001

- It functions as and consolidates an essential component of the health district.
- It provides certain Level I hospital services that cannot be delivered at a clinic or CHC.
- It has the following clinical departments: emergencies, medicine, surgery, obstetrics, paediatrics, psychiatry, and out patient care.
- It provides a 24-hour service and will have more than 30 beds.
- It ensures the maintenance of good clinical standards in the district.
- It provides in-service training and support to PHC services and facilities in the district.
- It provides an integral part of all district health programmes.
- General doctors who receive support from secondary and tertiary level hospitals staff it.
- It renders primary level services to the surrounding population such as immunisation, growth monitoring and sexually transmitted infections (STI) treatment, preferably through a separate PHC centre or out patients department within the grounds of the hospital.
- It has the capacity to interact with the community and with other sectors.

Source: Bennett *et al.*, 2001: 17.

However, the functional integration of the district hospital in the DHS in relation to TB control has not been a uniformly smooth process. Referral of TB patients from hospitals to clinics remains a problem in South Africa. Poor back-referral is due either to the ignorance of hospital staff about community facilities, or to a lack of time or of commitment on their part to ensure that patients reach the intended facility with the appropriate medical notes on the referral form: “*We must be professional and courteous in writing complete referral notes*” (Edginton, 2000).

The Equity Project developed an assessment tool to enable hospital boards to measure the efficiency of hospitals in relation to TB control (Bennett *et al.*, 2001: 43): This instrument developed in the Eastern Cape stipulated twelve criteria to measure the ‘*TB efficient hospital*’:

- “*The hospital is part of the tuberculosis control programme of the Province and the district*”: The first criterion related to the question whether the hospital management realised the priority of TB control and ensured that its management of TB patients linked the hospital to the provincial TB control programme. It was suggested

that this might be measured by whether the NTCP protocols were available to and used by hospital health workers.

- *'National [TB] Control Programme diagnostic and management guidelines are followed'*: The second criterion required measurement of whether diagnosis of TB was essentially by sputum smear or culture tests. The instrument is not exactly clear on this point, but it would seem that such diagnosis could be made either at the hospital, itself, or *'by identification elsewhere'*. Measurement of efficiency further related to the question whether there were limited use of X-rays, clinical findings and skin tests as the basis for diagnosis and whether hospital staff was aware of the diagnostic problems associated with concurrent TB and HIV infection. Furthermore, it had to be questioned if diagnosis in the absence of *M.tuberculosis* was done by consensus (*'discussion by several doctors'*) or resulted from clinical treatment trials. The hospital also had to be assessed in terms of having a clear policy on *'7-day treatment regimes for adult TB and on 5 or 7-day treatment for children'*.
- *'All TB cases are notified'*: Despite the notion that the TB hospital was not a *'notifying institution'* the authors included this third criterion stating that it had to be measured by establishing whether all cases were notified, using the notification form of which copies were then sent to the district health manager, to the TB co-ordinator and the local authority.
- *'There is full involvement with the local TB Control Team'*: Measurement of the fourth criterion related to whether there were *'established linkages'* with the district TB co-ordinator, other hospitals (*'especially SANTA'*), the district health manager, and local authority staff concerned with follow-up of patients in clinics and communities (*'including periodic meetings, phone and fax communication'*).
- *'A referral protocol for TB patients has been developed and is used consistently'*: The fifth criterion related to establishing whether there was a protocol for referral or transfer that was *'adhered to strictly'*, whether all forms were filled out completely, and whether the clinics to which patients were transferred, were notified by form, phone and post. Interestingly, and perhaps somewhat impractically, the assessment tool also ascribed to the hospital the role of *'prior arrangement'* of a DOTS supporter *'through the clinic'*. The next two measurements of the fifth criterion would also be difficult for hospital boards to carry out, i.e. whether patients were discharged with a sufficient quantity of medicine as *'arranged with the clinic'* and whether patients were aware where their sputum will be next examined.

The remaining seven criteria are self-explanatory:

- *"The hospital board is concerned about TB and it's consequences for the communities."*
- *"Other facilities and key workers in the district are supported."*
- *"The Hospital TB Management is monitored."*
- *"Arrangements are made for contact tracing"*

- “The Hospital ensures that TB patients are treated at the correct facility level.”
- “All hospital TB patients receive social support when warranted.”
- “Nosocomial TB infection⁹⁶ is minimised for staff and patients.”

4. International and South African TB hospitalisation policies

DOTSplus

DOTS, in itself a comprehensive TB management strategy, is considered a top priority by the World Health Organisation to achieve TB control worldwide. Weyer (2000: 2) stated, however, that the World Health Organisation also recognised that MDRTB posed a considerable risk to the effectiveness of DOTS programmes and, therefore, strongly supported pilot projects to assess the feasibility and cost effectiveness of ‘DOTSplus’⁹⁷ interventions in a variety of TB control programme settings, provided that DOTS was in place or was being introduced simultaneously. Lambregts-van Weezenbeek & Reichman (2000: 995) stated that the call for DOTSPPlus resulted from the identification of MDRTB ‘hotspots’ around the world and the observation that regular DOTS programmes did not suffice to cure MDRTB in those settings. The authors supported the introduction of DOTSPPlus as ‘a vital element of global TB control’, yet cautioned that the risks of rapidly adopting universal DOTSPPlus programmes may have been seriously underestimated. Attention was further drawn to the wide range of conditions in addition to the DOTS package that had to be met in order for a DOTSPPlus intervention to be safe and effective: facilities for drug-susceptibility testing; a revised system for monitoring sputum conversion and treatment outcomes; a carefully designed and ‘waterproof

⁹⁶ In the 1980s and 1990s hospitals in the United States of America spent tremendous resources to ensure safer workplaces resulting in a remarkable decrease in nosocomial transmission along with a decrease in TB cases nationally. Although decidedly ‘low-tech’, measures such as the approach of ‘isolate frequently’, wearing masks, and keeping doors closed in rooms housing potential TB patients, remained the cornerstone of TB control in hospitals. Even if such measures were costly and burdensome, they had to be weighed against patient and worker safety (Sepkowitz, 2001). Therefore, New York alone spent US\$750 million between 1993 and 1996 to protect hospitals and jails, ensure adherence to treatment, and reduce MDRTB (National Institute of Allergy and Infectious Diseases, 1999). As recently as 2001, Australian scientists recommended that more attention be paid to infection control measures and regular staff screening in hospitals (Stuart *et al.*, 2001). Similarly, Legge (2000), associating the outbreak of MDRTB in New York in the early 1990s with a failure in hospital infection control policy, stated that a comparable situation existed in the United Kingdom, particularly London. Only 35% of acute hospital trusts in the United Kingdom had negative pressure isolation rooms despite guidance from the Department of Health that anyone with TB should be cared for in such facilities. Negative pressure isolation rooms were designed to make certain that air that contains TB bacteria does not escape to infect others. Legge, however, suggested that poor maintenance of facilities in New York turned them into ‘positive pressure rooms’, infecting ‘immunocompromised’ patients and some health workers, particularly those HIV-positive.

system for drug management (quality control, procurement, logistics, stock and delivery); and strictly administered daily DOT⁹⁸ for the entire course of therapy.

There was a great need to develop an evidence-based DOTSPPlus package in which the above-mentioned going general conditions were dealt with in more detail. The authors felt that the development and funding of a DOTSPPlus intervention should be a co-ordinated effort of the global community, involving all relevant public health organisations and NGOs. Recalling that MDRTB is man-made and occurs solely because of inappropriate prescription of drugs or because of inappropriate use of such drugs, Lambregts-van Weezenbeek & Reichman (2000: 995) cautioned that there was *'no reason at all to believe that causal factors responsible for the emergence of [MDRTB] in a certain setting [were] suddenly resolved when expensive second-line drugs [were] introduced'*. The authors listed the following steps before starting a DOTSPPlus programme: (i) collection of relevant and representative drug-resistance surveillance data; (ii) review of the current TB control programme, including a systematic analysis of the treatment delivery process in the past, to identify the factors responsible for the emergence of MDRTB in a particular setting; (iii) tailoring the DOTSPPlus package to the local infrastructure, (iv) ensuring that all key elements are being implemented and that all factors responsible for MDRTB in the past are prevented; and (v) putting in place a system of internal and external programme monitoring and evaluation. The importance of taking such steps was strongly emphasised: *"Failure to institute this entire DOTSPPlus package is likely to destroy the last tools available to combat [TB], and may ultimately result in the victory of the tubercle bacillus over mankind"* (Lambregts-van Weezenbeek & Reichman, 2000: 995). Weyer (2000: 2) pointed out the advantages of DOTSPPlus: *"A successful, country-wide DOTSPPlus programme should, however, decrease the number of smear positive [MDRTB] patients, which would in turn decrease their relative contribution to transmission ... If [MDRTB] can be controlled at the current low level (by preventing further emergence through accelerated DOTS implementation and effective therapy of existing [MDRTB]), an HIV-associated [MDRTB] epidemic could be averted."*

⁹⁷ Weyer (2000: 2) defines DOTSPPlus as a strategy *'under development designed to manage [MDRTB] using [either standard or individualised] second-line drugs within the DOTS strategy in low- and middle-income countries'*.

⁹⁸ In 2003, DOT-supervision of some 5 000 new patients in the Free State was mostly by community volunteers (49%), followed by PHC clinic nurses (20%), relatives of patients (19%), community health workers (5%) and employers (3%). The remaining 4% of supervised TB patients depended on *'other'* treatment supporters (including shopkeepers and teachers) or had no such support. Traditional healers did not at all feature as DOT-supporters in the Free State (Free State Department of Health, 2003c: 1).

Lambregts-van Weezenbeek & Reichman (2000: 995) believed that ‘*new and heroic*’ DOTSPlus programmes have the potential to distract attention from the fact that the great majority of TB cases should have been, but were not treated within the context of cost-effective DOTS programmes and that all advocacy efforts related to DOTS and DOTSPlus should, therefore, have been linked in order to prevent competition between the two control strategies that essentially dealt with the same issue.

The following World Health Organisation policy document is of particular importance to hospitalisation for TB:

- Maher *et al.*, 2001. *Strategic framework to decrease the burden of TB/HIV*. Geneva: Stop TB Department and Department of HIV/AIDS, World Health Organisation.

In Maher *et al.* (2001: 30) the World Health Organisation explicated the necessity of secondary care for TB and HIV/AIDS stating that such care should enable the diagnosis and treatment of common HIV-related diseases, including sputum smear negative PTB and extra-pulmonary TB. Diagnosis of these conditions require investigations, such as X-ray and biopsy, usually only available at secondary level. At the tertiary level, measures for the diagnosis and treatment of complications of common HIV-related diseases should include specialist management of complicated forms of TB such as peritoneal and pericardial TB. There is little doubt that the World Health Organisation is in favour of hospitalisation for TB under certain circumstances.

National policies

South Africa’s Constitution states that everyone has the right to access health care services, and that the state must take reasonable legislative and other measures, within it’s available resources, to achieve the progressive realisation of this right. The district hospital is also implicitly mandated in the Constitution’s requirement that no one may be refused emergency medical treatment (section 27, Republic of South Africa, 1996). This mandate results from the fact that in many districts, district hospitals are the only public health facilities providing 24-hour (emergency) services. The Department of Health should ensure realisation of the Constitution’s requirements as pertaining to health care. Policy documents of the Department of Health of particular concern to hospitalisation for TB include:

- 2000: Department of Health. *The South African Tuberculosis Control Programme: practical guidelines, 2000*. Pretoria: Department of Health.⁹⁹
- 2001a: Department of Health. *A comprehensive PHC service package for South Africa*. Pretoria: Department of Health.
- 2001b: Department of Health. *The primary health care package for South Africa - a set of norms and standards*. Pretoria: Department of Health.

The *PHC Package* (Department of Health, 2001a; 2001b) states that only patients sick enough to require hospital care should be referred for hospitalisation. This includes ‘*any severe complication of TB or adverse drug reaction*’. In accordance with the World Health Organisation’s (1997: 13) *Guidelines for the management of drug-resistant tuberculosis*, the Department of Health (2000: 41) states that MDRTB patients should be referred to an MDR-unit¹⁰⁰ where experienced clinicians can treat the patient according to the guidelines as set out in Weyer (1997).

Medical Research Council of South Africa policies

The following Medical Research Council document is of concern to hospitalisation for TB:

- Weyer. 1997. *The management of multidrug-resistant tuberculosis in South Africa*. Pretoria: Medical Research Council of South Africa.

From Weyer (1997: iii) the following seems to be the most important policy principle in relation to hospitalisation for TB: “*Patients with MDR are best treated in hospital, at least until 3 consecutive monthly sputa are culture negative. The most cost-effective way of doing this is to provide special, well ventilated, wards in existing hospitals. It is not recommended that separate ‘MDR’ hospitals be built far from the patient’s social support network.*” Furthermore, a section on specialised facilities or specialised management teams: “*Treatment of patients with [MDRTB] involves second line reserve drugs. These are more expensive, less effective and have more side effects than standard [TB] drugs. Treating MDR patients requires experience and special expertise. It is therefore recommended that each province establish a specialised facility or specialised management team to which [MDRTB] patients can be referred for evaluation, prescribing of treatment and follow-up, as well as for specialised counselling . . . In provinces where the incidence of [MDRTB] is too low to make this a viable option this team could also provide a*

⁹⁹ See chapter 13 ‘MDRTB’.

¹⁰⁰ In the Free State an MDR-unit was established in 2002/2003 at Dr. J.S. Moroka Hospital in Thaba Nchu. The first patients were admitted to the unit on 1 July 2003 (information obtained from Mrs. A. Peters, personal communication, Kroonstad, 30 October 2003).

referral facility for patients with susceptible [TB], referred from clinics with problems such as allergic reactions to drugs, which may need specialised attention.”

It would thus seem that for the Medical Research Council of South Africa the availability of a specialised team was deemed more important than the MDR-unit as such. Yet the idea of a specialised facility was also promoted. As far as the specialised TB management team was concerned, Weyer (1997: 12) viewed the following as necessary members of such a team who should oversee all aspects of MDRTB management and should be solely responsible for treatment and surgery decisions: (i) a respiratory physician or a specially trained medical officer; (ii) a dedicated MDR-trained nurse; (iii) a social worker; and (iv) an administrative assistant. The role of the specialised MDR management team or ‘MDR referral centre’ was explained as follows: *“Particular attention must be paid to full documentation of patient particulars and every effort must be made to ensure that all patients are seen by the management team at least once during the course of the disease and preferably on a monthly basis. Routine treatment of [MDRTB] patients at [PHC] clinics should not be attempted, however, supervision of therapy for those patients being treated as out patients may be available at certain clinics. In this case the required drugs should be made available to the approved clinic on a named-patient basis only, and on prescription from the MDR referral centre. Provincial health authorities should limit the use of second-line reserve drugs in order to prevent the emergence of incurable [TB].”*

Thus, the necessity of a specialised TB referral centre (in addition to the specialised MDR management team) was implied, and indeed Weyer (1997: 13) clarified the role of such centres: *“Referral centres are not necessarily centres for the admission of patients, although they should, ideally, be linked to hospitals with isolation facilities or special wards, since many patients will be referred from far away and will need admission during evaluation. The main function of referral centres or management teams will be the evaluation of patients, prescribing treatment, follow-up, specialised counselling, training of staff and problem solving for special cases.”* (Initial) admission/hospitalisation of MDRTB patients was seen to be the ideal strategy (Weyer, 1997: 13): *“Patients with [MDRTB] should ideally be admitted for at least the first few months until they have produced three consecutive monthly culture negative sputa. During this time plans should be made for the provision of treatment at certain designated clinics which should be supplied with the drugs required prior to the patient’s discharge from hospital.”*

Nevertheless, the provision of specialised facilities or teams to manage MDRTB was seen as a step only to follow on sound implementation of the NTCP as applied to new and re-treatment¹⁰¹ patients (Weyer, 1997: 13): “... specialised facilities or management teams for dealing with [MDRTB] may be regarded as an expensive luxury which is only affordable where national/provincial resources are adequate and after full implementation of standardised treatment regimes for new and retreatment patients has been achieved. A gross waste of resources will occur unless these facilities/teams consist of skilled and experienced staff [with] long-term responsibility. Treatment decisions should not be made by untrained and unsupervised persons on an ad hoc basis. Provincial protocols for the referral, assessment and management of [MDRTB] patients should be worked out in consultation with all role players.”

5. Free State TB hospitalisation policies

Free State Department of Health policy documents of concern to hospitalisation for TB include:

- 2003b: Free State Department of Health. *Admission and discharge criteria for TB patients*
- 2003d: Free State Department of Health. *MDR-unit policy*.

Admission criteria

Free State Department of Health (2003b) states that TB patients are not to be routinely admitted to a hospital. They should only be admitted when either their clinical condition warrant it and/or access to community-based care is not available. Specific admission criteria are the following:

- “Medical reasons for admission are when patients diagnosed with TB are too ill or too weak to go home, including severely emaciated TB patients without other complications.”
- “Re-treatment TB cases that need streptomycin injections that cannot be managed at a PHC clinic.”
- “Social or socio-medical reasons for admission are when clinic or community support cannot be achieved, particularly in the case of high-risk groups like alcohol/drug dependents, mentally disturbed patients or previously non-compliant patients.”
- “Severe drug reactions e.g. acute liver failure, Steven-Johnson syndrome.”
- “TB/HIV related diseases that need specialized medical care.”

¹⁰¹ A ‘re-treatment’ case refers to a TB patient who relapsed after previous cure: i.e., a ‘sputum smear positive PTB who received treatment and was declared cured (sputum became negative) [and] now developed smear positive PTB again’. A patient who relapsed after previously completed treatment, but for whom no proof of sputum conversion to negative exists, is also termed a re-treatment case. The term also denotes cases after treatment failure: i.e. a ‘patient who is still sputum positive at the end of the treatment period’. Lastly, the term also encompasses re-treatment after treatment interruption: i.e. a ‘patient who interrupted the treatment for more than 10 days during the intensive phase of treatment [or] who interrupted treatment for a total of more than one month during the continuation phase’ (Balt et al., 1998: 47).

Free State Department of Health (2003b) delineates essential elements of inpatient care. In respect of clinical management of TB patients four elements are specified:

- “Ensure proper diagnosis for [PTB] ... e.g. smears and/or Chest x-rays with negative AFB⁰² results. For extra-pulmonary cases by histology or chemical pathology.”
- “Ensure criteria for admission are met.”
- “Ensure proper classification of the cases e.g. new or re-treatment cases.”
- “Ensure correct regimes [are] prescribed.”

With reference to health education for the TB patient Free State Department of Health (2003b) specifies one element:

- “Health education [plans] for each patient to be developed and implemented within two weeks of admission.”

In respect of testing for HIV one further element is specified by Free State Department of Health (2003b):

- “Trained counsellors to offer and provide VCCT [voluntary, confidential counselling and testing] services to every patient during the course of their stay.”

Discharge criteria

Free State Department of Health (2003b) states that TB patients should be discharged to out patient care as soon as they can be managed effectively in the community. The specific discharge criteria entail that TB patients should be discharged from inpatient care units as soon as they are:

- “Medically stable (no dyspnoea, no haemoptysis, not severely emaciated, afebrile) and able to care for him/herself (or as soon as family or community based care is arranged).”
- “Able to access treatment at a clinic and be monitored either by going to a clinic or by a DOT supporter.”

Implementation of the policy for TB hospitalisation in the Free State

A proper information system to monitor how well district hospitals in the Free State fare with the hospitalisation of TB patients is in the process of being developed by the provincial TB control

¹⁰² ‘AFB’ refers to the number of TB bacilli seen in a smear. It reflects both disease severity and patient infectivity. AFB results are expressed as follows: ‘No AFB’ (per 100 oil immersion fields) is 0, ‘1-9 AFB’ (per 100 oil immersion fields) is scanty, ‘10-99 AFB’ (per 100 oil immersion fields) is 1+, ‘1-10 AFB’ (per 1 oil immersion field) is 2+++ and ‘>10 AFB’ (per 1 oil immersion field) is 3++++ (Balt *et al.*, 1998: 26).

programme. Table 27 reflects data collected in October 2003 from ten district hospitals (out of the 22 currently in existence) in response to a questionnaire distributed by the provincial TB co-ordinator. These forms were completed by district TB co-ordinators. Whilst follow-up research and more routine data gathering by the Free State TB Control Programme is needed before conclusive statements will be possible, the data in Table 27 are broadly indicative of the *status quo* pertaining to hospitalisation for TB at district hospitals in the Free State.

Table 27 Free State Department of Health TB hospitalisation data, 2000

DISTRICT HOSPITAL	DR. J.S. MOROKA	JOHN DANIEL NEWBERRY	KATLEHO	MAFUBE	MOHAU	NALA	NKETOANA	STOFFEL COETZEE	THUSANONG	WINBURG
TB beds (n)	Male – 10 Female – 0 Child – 1	Male – 1 Female – 1 Child – 1	No specific beds for TB	Male – 2 Female – 2 Child – 2	Male – 1 Female – 1 Child – 1	Male – 4 Female – 6 Child – 0	Male – 2 Female – 2 Child – 2	1 out of 23 beds allocated for TB	Male – 4 Female – 4 Child – 1	No specific beds for TB
Wards in which TB care is offered	Adult – separate Child – general	General	General	Separate	General	Separate	Separate	General	General	General
Admissions in 2002 (n)	-**	-	46	Male – 30 Female – 19 Child – 0	Male – 3 Female – 5 Child – 0	220	Male – 200 Female – 200 Child – 20	42	Male – 260 Female – 100 Child – 3	Male – 10 Female – 12 Child – 3
Mean bed occupancy (%)	85	53	22	25	-	85	-	96	59	-
TB patients registered?	Yes	No	Yes	No	No	Yes	No	No	Yes	Yes
TB policies and protocols (%)*	40	60	40	100	50	70	60	50	80	50
Method of confirmation of PTB diagnosis	Sputum, x-ray and score sheet	Sputum and x-ray	Sputum and x-ray	Sputum	Sputum	Sputum and x-ray	X-rays, sputum and clinical	Sputum	Sputum	Sputum
Confirmed PTB cases diagnosed by chest x-ray only (%)	10-20	20	40	5	0	50	80	20	10	30
Confirmed PTB cases diagnosed by sputum, smear or culture (%)	80-90	80	60	95	100	50	20	80	90	70
Smear-positive cases 2+ and below (%)	-	-	100	-	30	35	100	'High'	80	70
Smear-positive cases 3+ and above (%)	-	-	0	40	40	15	0	'Low'	20	30

DISTRICT HOSPITAL	DR. J.S. MOROKA	JOHN DANIEL NEWBERRY	KATLEHO	MAFUBE	MOHAU	NALA	NKETOANA	STOFFEL COETZEE	THUSANONG	WINBURG
Confirmed cases extra-pulmonary TB (%)	20	-	10	5	50	1	2	30	3	0
Confirmed cases re-treatment (%)	Males – 23 Females – 17 Children – 0	-	80	15	50	0	90	0	3	20
Confirmed MDRTB cases in the past year (n)	-	0	7	0	4		2	0	3	1
Laboratory microscopy services	Botshabelo Hospital***	NHLS	SAIMR	NHLS Kroonstad	NHLS Welkom	NHLS Kroonstad	BHM	NHLS	NHLS Welkom	NHLS Bloemfontein
Laboratory culture and sensitivity services	Botshabelo Hospital	NHLS	SAIMR	NHLS Kroonstad	Welkom Laboratory	NHLS Kroonstad	BHM	NHLS	NHLS Welkom	NHLS Bloemfontein
Sputum test turn-around time (mean in days)	3-7	3-7	-	3-7	3-7	3-7	7-14	3-7	3-7	-
Culture test turn-around time (mean in days)	21	-	3	15-21	7		21	56	14	21
Drug availability	Single and fixed combination	Fixed combination	-	Single and fixed combination	Fixed combination	Single and fixed combination	Fixed combination	Single and fixed combination	Single and fixed combination	Fixed combination
Initiator of TB treatment	Doctor and nurse	Doctor	-	Doctor	Doctor and nurse		Doctor	Doctor and nurse	Doctor	Doctor
Date of last training of medical staff on protocols for TB treatment	2001	2002	2003	'Never'	'Long ago'	'?'	2002	'Never'	'Never'	2000
Date of last training of nursing staff on protocols for TB treatment	2003	-	2002	June 2003	'Long ago'	December 2002	2002	October 2002	'Never'	2000

DISTRICT HOSPITAL	DR. J.S. MOROKA	JOHN DANIEL NEWBERRY	KATLEHO	MAFUBE	MOHAU	NALA	NKETOANA	STOFFEL COETZEE	THUSANONG	WINBURG
TB drug stock-outs in the past year (n)	0	0	0	0	0	0	0	0	1	0
Whether DOT-supervision is provided	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes
Type of DOT-supporter	Nurse	Nurse	Nurse	Nurse and DOT-supporter	Community health worker	N/A	N/A	Nurse	N/A	Nurse
TB patients discharged to PHC clinic (%)	100	99	100	98	-	-	100	100	99	100
TB patients discharged to regional provincial hospital (%)	0	0	0		-	0	0	0	1	0
TB patients discharged to MDR-unit (%)	0	0	1	2	-	0	0	0	0	1
TB patients who die whilst in hospital (%)	-	1	10	10	-	5	0	0	0	0
Whether there is a system to follow-up patients	Yes	No	No	No	-	Yes	Yea	Yes	No	No

* Percentages reflect how many of the following ten protocols/policies were available in the hospital: (i) *National Tuberculosis Control Programme Practical Guidelines, 2000*; (ii) *National Tuberculosis Control Programme – A Training Manual for Health Care Workers, 1988*; (iii) *EDL standard treatment guidelines: hospital level*; (iv) *Notification of Medical Conditions book (GW 17/5)*; (v) *Admission and Discharge Policy for TB patients*; (vi) *Multi-Drug Resistant TB. Management of multi-drug resistant TB in South Africa*; (vii) *Testing for HIV and Rapid HIV Testing Policy Guidelines, 1999*; (viii) TB patient education pamphlets; (ix) Notification forms for health care workers; (x) *Clinical Audit Policy (for TB)*.

** Missing data.

*** See Photograph 11.

Source: Compiled from Free State TB Control Programme, 2003.

Tentatively, the following may be gleaned from Table 27:

- District hospitals provide more TB beds for males than for females.
- In most district hospitals TB patients are still accommodated among other types of patients in general wards.
- Individual district hospitals admitted between eight and 420 TB patients in 2002.
- Seemingly, the new responsibility to hospitalise TB patients did not have much of a negative impact on district hospitals' workload. Katleho Hospital, for example, (still) has bed occupancy of only 22%.
- The fact that six in every of ten district hospitals do not register TB patients is of major concern.
- Sputum smear microscopy is used as method of confirmation of PTB diagnosis at all (ten) district hospitals. In fact, such microscopy is the only method used at five in ten of the district hospitals.
- It is of concern that Nketoana Hospital still mostly confirms PTB diagnosis by means of Xrays. Contrarily Mohau Hospital, seemingly, has done away with this tradition completely.
- Nketoana Hospital is achieving oddly lengthy sputum test turn-around time at 7-14 days. Stoffel Coetzee Hospital has the longest culture test turn-around time at 56 days.
- At five of the eight district hospitals that submitted data in this respect, doctors are the initiators of TB treatment, while three hospitals utilise both doctors and nurses to this end.
- At four in ten district hospitals doctors have 'never', or at least not within respondents' recall, undergone training in TB protocols, while this is the case for nursing staff at two of these hospitals.
- At only one of the ten district hospitals was TB drug stock-outs experienced in the past year.
- Thusanong, Nala and Mohau Hospitals do not provide DOT-supervision of treatment.
- All hospitals mainly discharge TB patients to PHC clinics. However, John Daniel Newberry, Katleho, Mafube and Thusanong Hospitals do not have systems in place to follow-up discharged TB patients.
- At Mafube Hospital the largest proportion of TB patients (10%) die while on treatment.

MDR-unit

The MDR-unit policy (Free State Department of Health, 2003d: 1-2) stated that the clinical team of the unit should include the clinical management team and the management committee. The clinical team's functioning is portrayed as follows:

- “*The Specialist respiratory physician shall see patients on a consultative basis.*”
- “*He shall also be responsible for evaluation of patients during monthly outpatients clinic in the unit.*”
- “*Medical officers shall be responsible for day to day clinical issues in the unit, and shall attend the wards on a rotational basis.*”

- “Medical officers shall attend to clinical issues in the unit on a needs basis.”
- “*MDR-Trained Professional nurse* – shall amongst other matters be responsible for overall nursing care of patients. He/she is also responsible for the upkeep and update of [the] MDR-TB register. He/she shall also be responsible for the monthly statistical report and analysis.”
- “Administrative clerks shall perform general administrative duties.”

The MDR-unit policy (Free State Department of Health, 2003d: 2) also denotes elaborate infection control measures to reduce the risk of health workers’ exposure in the MDR-unit as follows: regular washing of hands; face masks for both health workers and patients in high-risk environments; designated areas for sputum collection; clean corridors and cubicles; good ventilation at all times; ‘*sunlight*’; extraction fans¹⁰³; regular monitoring by the hygienist; universal infection control procedures (e.g. waste management, sputa disposal, bedpan disposal, etc.); and a disease monitoring programme for health care workers. The latter should include employment profiles and baseline screening of employees, quarterly records of health status of those working in high-risk situations, sputum and X-rays every 3 months, and annual screening. The policy (Free State Department of Health, 2003d: 3) further details the training needs of health care workers working in the MDR-unit stating that the specialist respiratory physician and the Medical Research Council of South Africa should conduct in-service training, and that other courses should be offered through electronic means (*ICAM*).

The MDR-unit policy (Free State Department of Health, 2003d: 3) specifies discharge criteria as two consecutive sputum-negative cultures and improved clinical condition. The policy further requires that on discharge patients will be supplied with a three-month supply of continuation medication; that transport arrangements will be made and the patient will be transported to a relevant clinic and handed over to a designated professional nurse; that patients have to report at that clinic on a daily basis to receive treatment under direct supervision (DOTSPlus); that monthly sputum will be collected for culture testing by the clinic; that the results be made available to the MDR-unit for its out patient clinics; and that, on completion of the continuation treatment, the patient shall report at the MDR-unit’s out patient clinic for further evaluation and medication.

¹⁰³ See Photograph 16.

The MDR-unit policy is careful to regulate requirements as regards 'pass-outs' (Free State Department of Health, 2003d: 3-4): Pass-outs are only to be granted to patients who have completed the intensive phase of treatment or '*under very exceptional circumstances*'. The duration of a pass-out shall not exceed fourteen days, and the patient shall receive medication for the duration of leave from the hospital. If this duration is to exceed five days, the patient is required to hand over the medication to a designated clinic for DOT. The MDR-unit does not accept responsibility for the transport of patients during pass-outs. When patients fail to return to the MDR-unit after pass-out its staff are to trace the whereabouts of these patients.

The MDR-unit policy even regulates calls on the MDR-unit by patients' visitors (Free State Department of Health, 2003d: 4): While the same visiting hours apply as to the rest of Dr. J.S. Moroka Hospital, the need is acknowledged to maintain flexibility with reference to MDRTB patients' visitors from outside Thaba Nchu. Visitors are required to see patients in the waiting areas/courtyards. They (the visitors) shall also be educated on the risk of exposure and precautionary measures, and should be provided with masks in high-risk areas of the unit.

6. Summary

In many areas of South Africa, PHC facilities are the only available and/or readily accessible health services. Therefore PHC providers bear a huge burden for the provision of health care in this country. The reinforcement of PHC is prominent among the policies and principles guiding the democratic transformation of South Africa. It forms part of a more comprehensive strategy aimed at rendering the provision, distribution and accessibility of public health care more equal and equitable across geographical, socio-economic and socio-cultural divides. There is disagreement whether hospitals in their present form are at all necessary in the South African PHC system. Some argue that hospitals, as organisational divisions of the health care system, would best be replaced as '*service programmes*' or subsystems of the health care system.

One way of aligning district hospitals with PHC - in its true sense - is to increase the extent of community ownership of and participation in the governance of these hospitals. Chapter 3 describes the involved processes required to produce hospital boards of repute, that have significant impact, and that are in accordance with legislative and policy guidelines. Such processes involve substantial

education and interaction between the hospital and the community (and its political representatives). Hospitals are huge assets of the provincial health departments, and these departments, amidst much greater emphasis on community involvement than under the previous regime, try to maintain tight control over hospitals.

The World Health Organisation does not judge special hospital wards for TB patients necessary, but does encourage the location of TB beds in specific areas of hospitals, as this could simplify the management of patients, including the full supervision of their chemotherapy. But for the World Health Organisation the need for supervision of chemotherapy, in itself, does not justify hospitalisation. Supervised ambulatory chemotherapy should be organized as the first priority in national TB programmes.

Hospital superintendents in South Africa rate the PHC approach and the development of the DHS as the most positive aspects of all the new national health policies. The DHS is the means and PHC is the end. District hospitals should form an important and integral part of both the DHS and PHC. A well-functioning district hospital must, amongst others, provide services that a PHC clinic or CHC cannot deliver. So, for example, the district hospital is seemingly constitutionally mandated to provide emergency services. The district hospital should also contribute to training and the maintenance of good clinical standards in the district.

In the Free State, the Department of Health and the provincial TB control programme are busily implementing the NTCP at PHC facilities, as well as at district hospitals. In this process policy-makers appreciate the district hospital's (potential) positive role in PHC, the DHS and TB control. Clear admission and discharge criteria have been set. More than anything else the district hospital has to deal with the types of complications that arise in TB management that cannot be effectively dealt with by PHC facilities. This does place a substantial burden on district hospitals. They should properly diagnose, treat, educate, support and discharge TB patients. Such patients also undergo HIV testing on a voluntary and confidential basis.

A proper information system to monitor how well district hospitals in the Free State fare with the hospitalisation of TB patients is in the making. Preliminary assessment results suggest variable achievements and limitations. It would seem that most district hospitals are making an effort to

provide the expected levels and quality of care for TB patients. Once the information system has been fully developed, all health workers and managers can be more fully briefed on shortfalls. Such an information system will also greatly benefit future research on the subject of hospitalisation for TB.

When all else fails and patients develop MDRTB, the Free State Department of Health's new MDR-unit in Thaba Nchu is in place to treat them. The MDR-unit's functioning is regulated by a detailed policy oriented towards both quality of care and assuring the safety of patients and health workers.

But, because the past cannot be negated and contains many lessons relevant to today and tomorrow, Chapter 4 takes closer heed of the decline of the practice to '*contract-out*' TB hospitalisation services in the Free State.

Chapter 4 Decline of contracting-out of TB hospital services in the Free State

“There are fantastic SANTA hospitals in the country, for example the one at Standerton” (Lifecare¹⁰⁴, 2003).

“In the health sector, as in the broader economy, the private sector has always been a powerful player and has shown itself adept at limiting government options for controlling it’s activities” (Gilson *et al.*, 1999: 25).

1. Introduction

The Free State has done away with the outsourcing of hospitalisation services for TB to private companies and NGOs. Allanridge Chest Hospital (Lifecare Group Holdings) was a provincial-aided private-for-profit establishment. Like private hospitals, generally, it claimed to provide high quality care¹⁰⁵ at a reasonable cost. But, like all private hospitals, it accounted first to its shareholders for its profitability. Allanridge Chest Hospital was effectively closed down by the Free State Department of Health in 1999. The former Santoord Hospital (SANTA) was a provincial-aided health facility that ostensibly operated on a not-for-profit basis. In 2002 Santoord Hospital was closed down even as SANTA National was facing a drawn-out crisis.

Chapter 4 departs from the notion of profit making in the non-state hospital sector. It considers the growth in the private hospital sector amidst its maintenance of selective and inequitable resource allocation and skewed coverage of those who cannot afford health insurance. The chapter also takes heed of the traumatic media and political commentary on the role of SANTA, and postulates that this contributed to the demise of Santoord Hospital. Generally, Chapter 4 represents an analysis the decline of the practice to contract-out TB hospitalisation services in the Free State.

¹⁰⁴ Information gleaned from personal communication with the Director Medical Services of Lifecare, Dr. M. Uys (Lifecare, Randburg, 21 October 2003).

¹⁰⁵ It does not help the image of public hospitals when societal role models personally shun public hospitals for the more luxurious and *privaté* surroundings of the for-profit hospitals when seeking treatment for their (*lifestyle*) diseases. It helps the private sector hospital, though, to the extent that subtle references to the *best medical care* in the media has become free advertising for private hospitals, usually in Johannesburg, Pretoria or Cape Town. The same journalists have little time to assess the plight of patients in the public hospital arena, unless sensing that conditions at large public hospitals have deteriorated enough to sell newspapers, whereupon their enthusiasm for detail (ranging from the state of the gardens to the number of times bedpans are changed) knows no boundaries.

2. Profit-making in the hospital sector

Protagonists for *private for-profit* hospitals contend that the business approach they bring to health care leads to both higher quality of health care and greater efficiency (*'minimising waste maximises profit'*). Proponents of these hospitals also point to the benefit for society of the considerable taxes they pay; taxes from which public and various types of state-aided hospitals are usually exempt. *'Proprietary'* hospitals operate on a fee-for-service basis. These hospitals are established by individual or corporate entrepreneurs, and are sometimes to a degree *'public'* in the sense that shares in the hospital (or controlling agent) are sold on the stock market (Weiss & Lonnquist, 1994: 329).

Is it appropriate for private hospitals to make profit off people's ill health? Ostensibly, managers of such hospitals are held accountable, first and foremost, for profitability. Thus profit must impact on choices about patient care. Advocates of public hospitals and/or voluntary hospitals contend that they are more able to focus on patients' needs. Weiss & Lonnquist (1994: 329) state that *'nonprofits'* have often been more willing than *'for-profits'* to provide services for patients unable to pay. Accordingly, the *'proprietaries'* are charged with using a variety of techniques to discourage access by poor patients. Amongst others, they tend to locate in more affluent (usually urban) areas, target marketing campaigns at middle- and upper-class patients (*'cream-skimming'*), conduct *'wallet biopsies'* upon entrance, refusing to admit the uninsured, and/or arrange their transfer to a public or voluntary hospital (*'patient dumping'*).

The World Health Organisation stated that future historians of health and social development will say of our time that there was remarkable improvement in health across the world, but that the period was also characterised by tension between the central public policy sector (with its provider arm) and private hospitals, and that governments sometimes vacillated between their enthusiasm for the role of the private sector and that of the public sector (Permain, 1998: 932). Indeed the apartheid government actively promoted the notion of a strong private hospital sector, while the ANC government stands more for strengthening of the public hospital system. Not that the latter approach has curtailed the growth of the private hospital industry.

Naylor (1987: 673-676) critically appraised the underlying assumptions made by proponents of privatisation of health care. One of these assumptions is that private hospitals are more efficient than

public hospitals. In Naylor's view private for-profit hospitals do not usually enjoy cost-efficiency advantages over public hospitals. All hospitals, public and private, have efficiency problems. While the public hospitals are known to have high length of stay figures, the typical public patient is older, sicker and poorer than the private patient – which tends to reduce the likelihood of early discharge and render comparisons problematic (Naylor, 1987: 675). This author observed that average per-day costs (including educational overheads and professional salaries) in academic, regional and community hospitals are roughly comparable to private hospital costs. However, case-mix and patient-profile factors tend to drive per diem costs higher in the public sector: “*It therefore seems most improbable that large-scale privatisation could lead to cost savings in the provincial hospital system*” (Naylor, 1987: 675). The author also stressed that ‘*such gross balancing of comparative costs ... does not begin to weigh the benefits from teaching and research activities in public hospitals*’.

Naylor, nevertheless, criticised the public hospital sector of the time by pointing out that equity and efficiency in the public sector would be enhanced if beds were to be allocated on the basis of need rather than race. ‘*White*’ provincial hospitals in the then Transvaal and Cape Province had occupancy rates of about 60%, while ‘*other*’ hospitals had rates in excess of 100%.

Growth in the private hospital sector

The first fee-for-service hospitals in South Africa opened in the 1940s and their expansion coincided with the growth in medical coverage for advantaged segments of the population in the 1970s (Broomberg *et al.*, 1992: 330). This trend accelerated in the 1980s as health insurance coverage expanded further, and the government's ‘*privatisation strategy*’ was implemented. According to Pillans (1988: 33), by 1986 there were 72 private hospitals and 62 unlinked surgical wards registered by the government, providing a ‘*meaningful*’ part of the health services in South Africa. Tariffs in the private hospitals were generally higher than in provincial hospitals. Government inspectors monitored the quality of care in private hospitals. There was also emerging interest in private clinics and nursing care homes for urban blacks, with the first private ‘*clinic*’ in Soweto erected at a cost of R3.6 million. Accommodating 78 beds, three surgical wards and X-ray facilities, this facility might perhaps better be described as a hospital. Its shareholders were mainly black physicians. Pillans also stated that the mining industry was contributing substantially to medical services, by offering some 8 600 beds (mainly reserved for black mine workers), free care, and service ‘*of the best in the country*’. Privately managed and controlled missionary hospitals were also providing a valuable service, mainly to low-

income people. The apartheid government had committed itself to a policy of privatisation. While claiming to retain responsibility for the health and welfare of the needy, it felt that certain hospitals and hospital components such as ambulance services, laundries and kitchens, could best be privatised: “*This should stimulate the economy, create more jobs, provide government with additional revenue without having to increase taxation, and encourage efficiency in the spirit of free market competition and the profit motive*” (translated from Pillans, 1988: 37).

Van Rensburg *et al.* (1998: 237) observed a gradual expansion of the role of the private sector in provision of hospital services, especially since the 1980s: “*Provincial administrations’ expanding claim to national resources for the financing of public hospital services, amidst a general slump in economic growth and rising inflation and unemployment rates, gradually led the government to abandon the idea of it’s obligation to provide basic health services and, as far as possible, most hospital services. The private sector was pertinently encouraged to expand its share and involvement in health care provision. During the 1980s this led to the large-scale establishment of several fee-for-service private hospitals and clinics. Alongside the provision of hospital services and facilities in the public sector, there now arose an autonomous hospital industry in the private sector as well.*” In 1989, Broomberg *et al.* (1992: 329) observed that 46 253 beds were provided in 341 private hospitals. This represented 29% of all hospital beds in the country. Fee-for-service hospitals had become a major growth point in the private health sector, having increased by 61% (5 018 new beds) between 1983 and 1990. Virtually all patients treated in these hospitals were covered by a medical scheme, and a parallel growth in medical aid membership occurred. Health care for the South African population remained marked by a dual mechanism reflected also in provision of hospitalisation services. Tax-funded public hospitals, like the entire public health sector, attempted to respond to the need for health care, while privately funded and owned hospitals responded to the demand for health care. By 1992/3 the private sector was well developed, but catering for only 23% of the population of 40 million, while accounting for 58% of the total health expenditure of R30 billion. This implied that the new government had a considerable task in rectifying a complex historical situation (Power, 1995: 15).

By 1998 there were 344 private hospitals in South Africa, many of which were owned by consortia of private physicians or large business organisations (Burger, 2001: 417). Söderlund *et al.* (1998) wrote that private health care financing had moved from a ‘*European style social health insurance system*’ much closer to a typical ‘*commercial underwriting*’ system. However, private health care financing could not be associated only with medical scheme cover. Extensive use of out-of-pocket payment for private

health care (even in the poorest communities) reflected, above all, inequities in the distribution of public health care to the indigent. Cost escalation was perceived by the private sector as the main problem, and the most prominent response was to try and curtail this through ‘*managed health care*’¹⁰⁶. While the private sector failed to control costs or make access more equitable, the Department of Health perhaps devoted too little resources to investigate, monitor and regulate the private sector: “*In order to avoid a situation where an informed industry controls an ill-informed government regulator, it is essential that substantial effort be put into building internal capacity and knowledge of the private health sector*” (Söderlund *et al.*, 1998: 155).

Despite a moratorium on creating new private hospital beds, the number of private hospital beds grew by 9% on average per annum since 1994 (Goudge *et al.*, 2001: 73) (Table 28). This moratorium was ‘*side-stepped*’ by the building of private ‘*step-down*’ facilities. These were wards with the full nursing complement, but without the theatres that would classify them as hospitals. Goudge *et al.* (2001: 73) warned: “*Regulations that attempt to legislate directly for levels of quantity, price, or quality without understanding the motivations and intentions of the private sector can often fail – because possibilities for and intentions to side-step the regulations have not been anticipated. Successful regulation of the private sector requires a qualitative understanding of the interests and intentions of both providers and financing agents.*”

Table 28 Total private hospital beds (n) and annual growth rate (%), 1983-1999

DENOMINATOR	1983	1989	1994	1999
Hospital beds	8 220	11 117	16 415	23 706
Annual growth rate	-	5.9%	9.5%	8.9%

Source: Goudge *et al.*, 2001: 73.

Current private and state-aided hospital statistics, if anything, are more difficult to source and fathom than public hospital statistics. Quite clearly, the private hospital sector is not eager to report its organisational and ownership structures, and, particularly, its cumulative profits for general scrutiny. For 1999 Kawonga & Knight (1999: 104) indicate a total of 227 private sector hospitals (162 private hospitals, 43 provincial-aided hospitals and 22 SANTA centres). Authors often rely on the *Hospital and Nursing Yearbook*¹⁰⁷ figures to portray the private sector. This is an unfortunate state of affairs

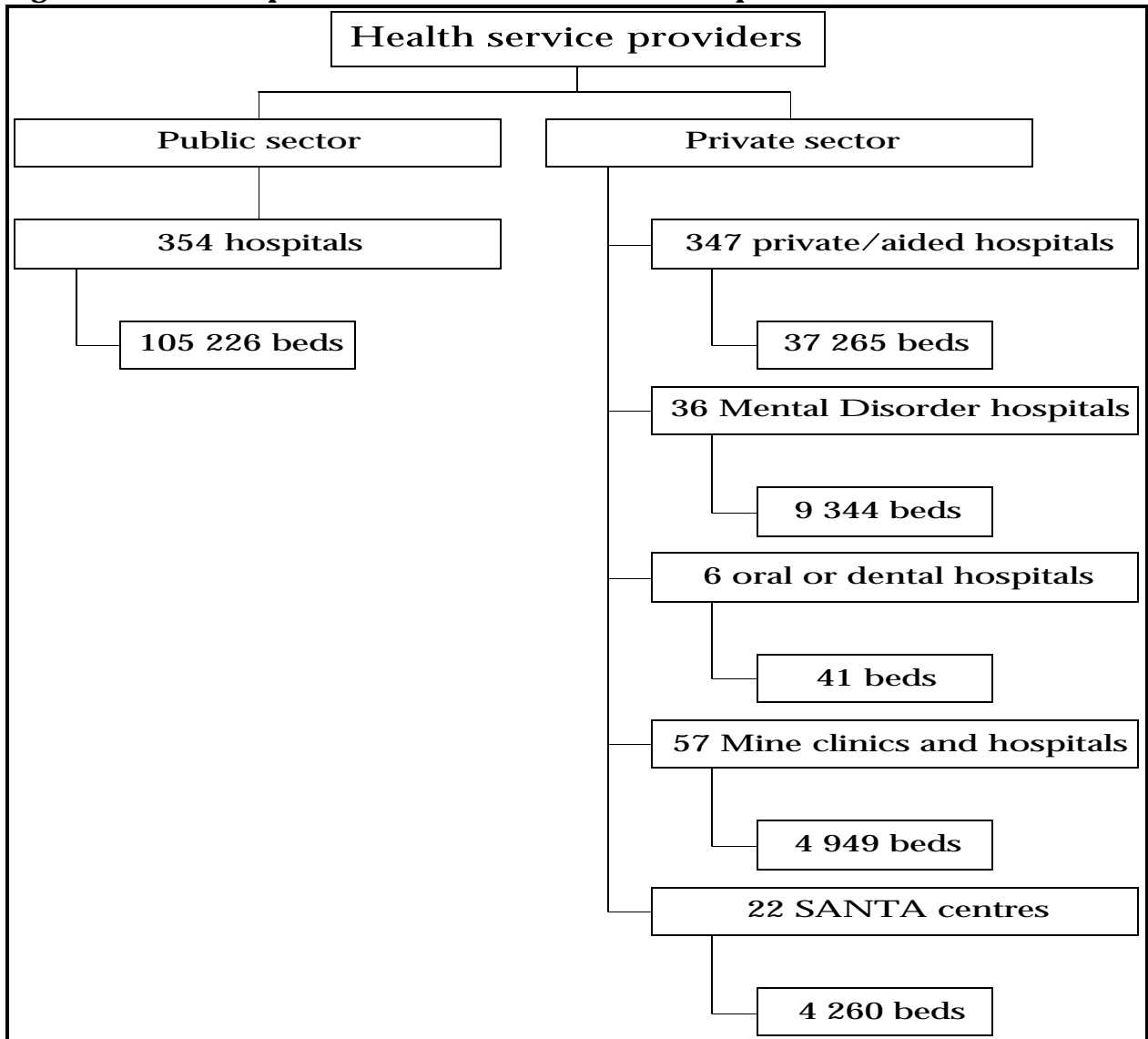
¹⁰⁶ See Goodman, 1997; Orelowitz, 2000.

¹⁰⁷ Despite its authoritative-sounding name, the *Hospital and Nursing Yearbook* does not explain how its data are gathered; neither does it provide definitions of categories of hospitals. It is practically silent on matters of hospital policy and social responsibility. Curiously, summarised hospital statistics indicated by the *Hospital and Nursing*

since the main purpose of this publication itself is seemingly to serve the information needs of commerce in the (private) medical supply industry. For 2000 the *Yearbook* indicated a total of 347 private and state-aided hospitals (not differentiating), as well as 36 institutions licensed under the Mental Disorders Act, six oral and dental hospitals, 57 mine clinics and hospitals (not differentiating), and 22 SANTA centres (Figure 1). If all the aforementioned facilities were to be seen as such, 468 'private' hospitals were in existence, but this would include a substantial number of facilities that may perhaps better be described otherwise, e.g. mine clinics. However unsatisfactory, it is to be concluded that there are anywhere between 227 and 468 private hospitals in South Africa, and the upper end of this range may even be higher.

Yearbook 2000 and that for 2001 are exactly the same, probably signalling a lack of rigour and accuracy in the data collection and compilation - much the same kind of thing that proponents of private hospitals accuse the public sector of.

Figure 1 Private and public sectors in national context: hospital and bed numbers, 2000



Source: Compiled from Young, 2001: 140.

Broomberg *et al.* (1992: 334) portrayed the effects of private hospitals on the public sector. The authors argued that society subsidised private hospital care in two important ways: the private sector drew staff (nurses, doctors and specialists) away in view of better salaries and benefits; and tax concessions to corporations for medical aid contributions for private hospital care alone amounted to R171 million in 1991.

Selective private coverage burdening the public sector

Traditionally, the contribution of private hospitals to national health care resources in South Africa was limited by restriction of access to those who could afford to pay, as well as by their geographic maldistribution. In the whole, private hospitals had a negative effect on the public health sector. Van den Heever (1995: 16) described the variable impact of the two systems on coverage, health care costs and the provision of preventive services. His analyses showed a real increase between 1982-1992 of 175% in private sector (medical scheme) expenditure, compared to 36% for public sector expenditure and 71% for total health expenditure. In fact, public sector per capita expenditure remained relatively stable, while private sector per capita expenditure more than doubled. This author predicted that the growth in private sector cost trends would be unsustainable in the long term. Despite the element of risk sharing inherent to medical schemes, it would result in fewer and fewer people being able to afford private health care. Therefore, the burden to care for more people would fall on the state, and the first people to fall out of the private system would be high-risk categories, such as the elderly and the chronically ill. This itself could bias the system in favour of curative care. Given that the private sector represented a highly distorted market with enormous incentives to over-service and abuse medical aid and insurance funding, a major restructuring of institutional relationships would be required to address this situation. The private sector would have to deal with the problem of ensuring that all those who could afford to contribute towards their own medical care do so. In general it was essential that endemic cost and expenditure increases were to be contained at least to the extent that they converged with those of the rest of the economy.

Söderlund (1999: 757) stated that many low-cost medical schemes exploited the fact that public hospitals cannot turn away patients in need. Consequently, these schemes offered mainly primary care benefits, the expectation clearly being that care for serious illness would be offered free of charge or at low cost by state hospitals. Cost-recovery mechanisms in public hospitals also broke down resulting in minimal revenue generation by means of user charges. Owing to decreasing budgetary allocations (despite increasing demand) the strain on the public system was increasing. Rampant cost escalation in the private health insurance and medical schemes sectors have resulted in static or decreasing numbers of people being covered.

Inequity in private hospital provision

Table 29 shows high variability in private hospital bed availability per province in 1999. Although the overall number of private hospital beds per medical scheme population of 3.4:1 000 was similar to a public sector ratio of 3.0:1 000 it was clear that the populations of the Eastern Cape, Mpumalanga, Limpopo and North West had much less access to private hospitals than those in Gauteng, the Western Cape and KwaZulu-Natal. Doctors and their private hospitals follow the money.

Table 29 Distribution of private hospital beds by province, 1999

PROVINCE	HOSPITALS AND DAY CLINICS	BEDS	% TOTAL BEDS	% MEDICAL SCHEME POPULATION	BEDS PER 1 000 MEDICAL SCHEME POPULATION RATIO	
Eastern Cape	18	1 224	5.2%	13.5%	1.3	
Free State	11	937	4.0%	5.4%	2.5	
Gauteng	85	10 605	44.7%	32.2%	4.7	
KwaZulu-Natal	28	4 974	21.0%	15.2%	4.7	
Mpumalanga	8	804	3.4%	8.2%	1.4	
Northern Cape	3	297	1.3%	2.0%	2.1	
Limpopo	2	273	1.2%	5.9%	0.7	
North West	9	795	3.4%	5.8%	1.9	
Western Cape	36	3 797	16.0%	11.7%	4.7	
Total – private sector	200	23 706	100%	100%	Mean ratio – private sector	3.4
Total – public sector	-	105 441	-	-	Mean ratio - public sector	3.0

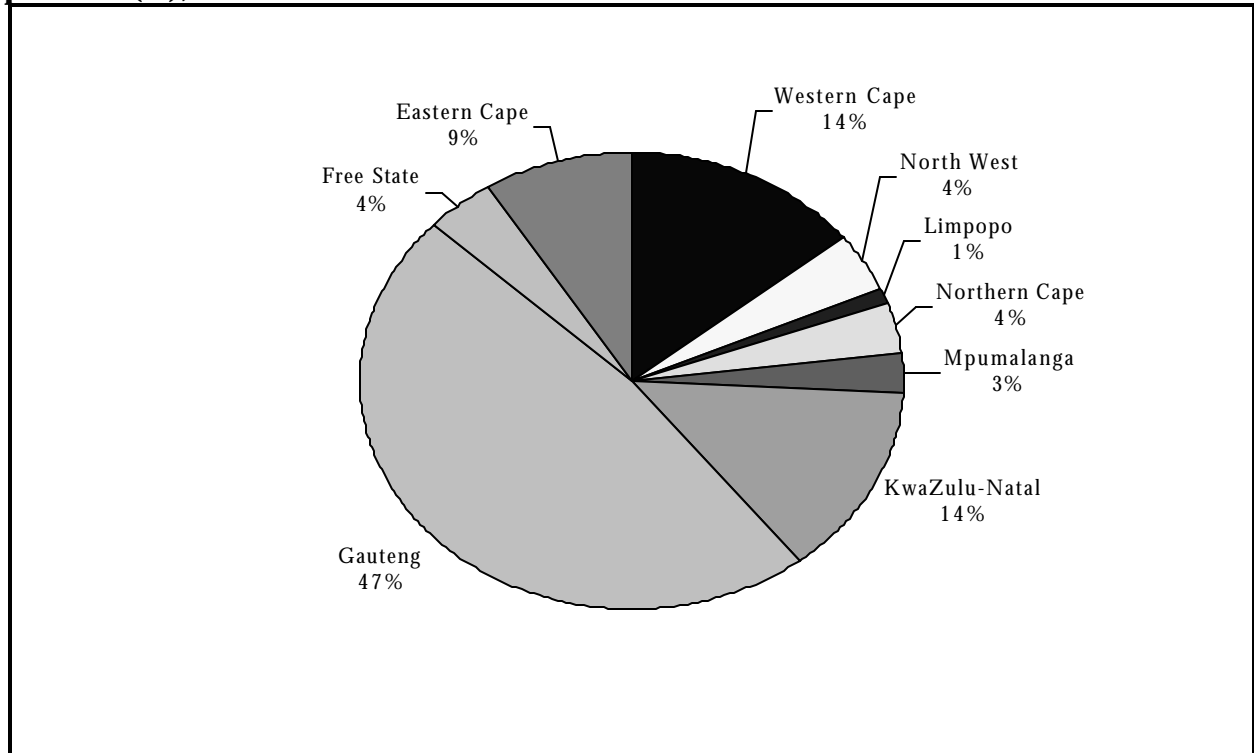
Source: Goudge *et al.*, 2001: 73.

Boulle *et al.* (2000: 236) noted that Mpumalanga, Limpopo and the Eastern Cape had aggregate bed:medical aid-covered patient ratios below 2:100 000, which reflected the concentration of private hospital beds in major urban areas and provinces, as can also be seen in Table 29. According to the authors the provision of specialised hospital beds mainly for chronic mental health and TB, remained inappropriately high, especially in the Western Cape. It is also clear from an analysis of the list of 170 private hospitals and day clinics affiliated to the Hospital Association of South Africa in the *Hospital & Nursing Yearbook 2001* (Young, 2001: 224) that private hospitals in South Africa are concentrated in urban settings and in the wealthier provinces. In fact, Table 29 and Figure 2 suggest that Gauteng in great measure is the home of the private hospital in South Africa. Even considering their smaller populations, provinces such as Limpopo, the Northern Cape, Mpumalanga and the Free State have attracted much less private health care interest. Probably not inadvertently, this may also mean that

the small numbers of private hospitals in these provinces have greater monopolies over private hospital services.

HASA's views and a reply to HASA

Figure 2 Private hospitals affiliated to the Hospital Association of South Africa by province (%), 2001



Source: Compiled from Young, 2001.

The executive director of the Hospital Association of South Africa (HASA), Van der Merwe (1998: 157), cited three '*stumbling blocks*' in establishing co-operation between the private and public sectors: perceptions that staff trained in the public sector were '*stolen*' by the private sector, interpretations of a private sector charging exorbitant prices; and differences in the cost of pharmaceuticals and surgical disposables for the state and the private sector. This author argued that staff undergoing training or who were trained in the public sector (at the expense of the taxpayer) '*don't belong to anybody*' and the challenge was rather to retain such staff for the country and to utilise them optimally. On the issue of the claimed exorbitant prices in the private sector, Van der Merwe alleged that costs in the public and private sectors could not be compared accurately because: (i) there was neither standardisation nor common terminology for such concepts as percentage bed occupancy, patient day, or duration of

stay; (ii) given the way that medical schemes report their expenditure, no information was available on the cost per procedure when all hospital accounts were summed; and (iii) equally inaccurate information on costs in the public sector occurred, many items appeared on the budgets of different departments and levels of government. Van der Merwe (1998: 157) further stated that it was certain that private hospitals worked with a staff-patient ratio of less than 1:3, while public hospitals realised a ratio of only 1:9. He grudgingly conceded that in respect to the cost of pharmaceuticals and surgical disposables that the indigent patient should enjoy the benefit of the state's purchasing power and tender system.

A public health protagonist, Harrison (1998: 157), responded to Van der Merwe by being encouraged that the HASA was '*not indifferent to the rough justice being meted out to people who cannot afford to pay for emergency health care*'. He went on to challenge the private sector at large: "*Would it not be a powerful statement of intent if the private sector were to unite in declaring that, within its powers, nobody would die or be disabled because of their inability to pay for medical care? Without this clarion commitment, the interests of the poor risk being lost in the polemic of other, more powerful, interest groups.*"

3. State-aided hospitals

Lifecare hospitals may be described as state-aided for-profit hospitals, while SANTA centres may be classified as state-aided not-for-profit hospitals.

State-aided for-profit hospitals

Little is documented about these hospitals outside the confines of their in-house company materials. Chapter 2 reflects on the history of the (Lifecare) Allanridge Hospital in the Free State. As a private company Lifecare¹⁰⁸ currently operates about 1 900 registered TB beds in South Africa. Three Lifecare hospitals are respectively in the western, central and eastern parts of Gauteng, one in Port Elizabeth (Eastern Cape), and one in Richmond (KwaZulu-Natal). Bed occupation in Gauteng is in excess of 85% and in the other two provinces 70-80%. If one considers patients' comfort, Lifecare's

¹⁰⁸ Information gleaned from personal communication with a former medical officer concerned with TB care at the (Lifecare) Allanridge Chest Hospital, Dr. A. Oosthuyzen (St. Helena Private Hospital, 27 October 2003) and with the Director Medical Services of Lifecare Group Holdings, Dr. M. Uys (Lifecare, Randburg, 21 October 2003).

'flagship' hospital is Lifemed Hospital in Gauteng. However, in 2003, this very hospital was targeted for stark media criticism as related in Box 6.

Box 6: The Gauteng MEC for Health's perspective on problems with the private for-profit Lifemed Hospital, 2003

The Gauteng MEC for Health, Gwen Ramokgopa, threatened to 'crack the whip' after patients lodged complaints of gross negligence by nurses of Lifemed Hospital in Robertville, Johannesburg with the Department of Health. Reportedly, Ramokgopa was scheduled to stage a 'snap visit' to the hospital to personally interview patients: "I am not going to allow patients to be treated that way, especially since we pay the hospital to look after the patients on our behalf ... TB is a curable disease: Being HIV positive does not mean that someone is dying and then should be left to die, no." Further to the report the patients said that fellow-patients had died because they had not been given their tablets. One patient had not received medicine until three weeks after his arrival. Another was given a floor rag to use as a face towel. Another still, alleged that critically ill patients were being beaten. Kitchen staff were accused of selling food that was supposed to be free to patients: "They sell Nkomazi milk for R12 and a piece of meat for R5 and it is terrible when one does not have the money." The news team themselves witnessed relatives of patients 'streaming in ... to wash their loved ones who could no longer help themselves'. One relative is cited: "I always find my brother dirty and at times sleeping in his urine ... Nurses do not wash them." The hospital's director, Nandi Diliza, was 'equally shocked to hear the allegations and promised an investigation'. The director further promised that 'heads would roll' at the hospital if what the patients were saying turned out to be true. Diliza stated that the nurses were meant to provide a 24-hour nursing service, which included 'bathing, clothing, clipping nails and doing their hair': "Our primary duty is to provide nursing services. I am really shocked to hear the patients' complaints. We view these allegations seriously ... anyone found guilty will be fired."

Source: Dube (2003: 2).

If sputum conversion and 'effective discharge' are the criteria, then Lifecare's flagship hospital is Richmond Hospital, KwaZulu-Natal. At the time of Allanridge Chest Hospital's closure in 1999, Lifecare's contract was with the national Department of Health and was protected by a '90% bed occupancy clause'. This meant that payment was for 90% of the beds, whether occupied or not. This was ostensibly justified by virtue of the huge capital expenditure of the company to erect hospitals in the first place. However, the Free State Department of Health, reportedly, did not appreciate or understand all the 'nuances' of the 'umbrella contract' with Lifecare. The company reported that 'communication gaps' occurred and that the Department decreased the number of beds without informing it's own financial division and the Lifecare account for 90% of the beds thus continued to be honoured unabated for some times.

State-aided not-for-profit hospitals

Although often categorised with public, and sometimes with private for-profit facilities, state-aided or provincially-aided health facilities (PAHFs) have characteristics different from both of these" (Kawonga & Knight, 1999: 104). According to Weiss & Lonnquist (1994: 329) 'voluntary', not-for-profit hospitals usually 'answer to a board of directors typically comprised of community leaders and end-of-year financial surpluses are reinvested in the hospital (as opposed to being paid to investors)'. PAHFs are less likely than

for-profit hospitals to contribute to rising hospital costs and to compete with the public sector for its resources, and, in fact, are more likely to further the government's equity objectives. Although usually managed by autonomous management committees, these facilities usually operate within the government's broad policy framework. According to Kawonga & Knight (1999:104) the contribution of PAHFs is much smaller in South Africa than in many developing countries "*where the most widely recognised form of private health care provision is through private not-for-profit providers in receipt of public funds. Elsewhere in sub-Saharan Africa, missions or churches are the most important not-for-profit providers, sometimes contributing up to 30% to 50% of total health services*".

SANTA hospitals are also classified as PAHFS (Kawonga & Knight, 1999: 105). In 1999, SANTA operated 22 centres or hospitals for TB care: seven in the Eastern Cape, six in KwaZulu-Natal, three each in Gauteng and Mpumalanga, two in the Western Cape, and one in the Free State. By 2000, SANTA was openly admitting that it found itself in a media crisis (Van Rensburg, 2000: 2). SANTA's corporate relations manager, Van Rensburg, delineated the focus of the crisis as amounting to differences within the NGO between '*old-style stalwarts*' and the '*new breed of volunteers*'. The former, in this author's view, made a "*tangible contribution to eradicating TB as they embarked on mammoth fund-raising campaigns ... led the establishment of hospitalisation centres and exploited their lobbying and watchdog role to the fullest ... They felt a real sense of ownership over the Association and the TB problem.*" The latter, while giving '*willingly and selflessly of their time and energy*', were '*more reliant on staff to lead their activities*'. According to Van Rensburg (2000: 2), the same scenario was duplicated within the staffing situation at SANTA's National Secretariat: "*Hence, as a group, we are not agreed as to what the role of our office is and what we should be working toward. Some staff members feel that SANTA is merely the hospitalisation services, something that would ... always cloud perspective and focus.*"

In September 2001 SANTA's crisis of the preceding two years reached a climax when members at the Association's *Annual General Meeting* passed a vote of no confidence in the management committee (MANCO): "*The meeting reached consensus that any misconduct on the chairman's part should have been vetoed by MANCO and that all members were therefore culpable*" (SANTA, 2001a: 1). Despite the vote of no confidence in MANCO, its members could be re-elected as happened in the case '*chairman*' E. Mokoena, amid '*vociferous*' support. Stated SANTA (2001a: 4): "*But the situation was a result of changing times. SANTA's transformation has been challenging, with emotions running high in many quarters. This finally*

reached a climax when disciplinary action was taken against the CEO Andrew Ratsela. He has now left SANTA and a legal agreement has been reached whereby his severance package is to remain confidential.”

What was the infamous SANTA CEO’s view on the problems in which both the media and role players within the Association so pertinently implicated him? The CEO addressed the *2001 Annual General Meeting* of SANTA (Box 7).

Box 7 A former SANTA chief executive officer’s perspective on the problems of the Association, 2001

Dr. Andrew Ratsela pointed out that SANTA was in a time of transformation, that *‘change is painful’* and even *‘sometimes impossible’* in an organisation that has existed for such a long time. He stated that *‘we can comfortable [sic] breath a sigh of relief to realise the fact that it is indeed very near where we are going’*. Sketching the historical background of SANTA, he was critical of SANTA being run as a *‘family business’*. The previously disadvantaged were *‘totally excluded from this family’*, and the National Council was not representative of branch members. Quite frankly, some sections of his address were poorly written and even unintelligible: *“What is worse is that people are chosen from the provinces, and these people do not know anything about the organisation, on behalf of whom they would be taking decisions on matters of policy ... The windows and eyes of this organisation and indeed any other organisation are members of staff when people want to know anything about SANTA they would go to one of it’s offices or hospitals there would meet with the staff members who should inform about the goings in that organisation, so it is therefore sad that members of staff are usually not invited to National Council so that they can part in the deliberations on matters of policy.”* Sketching the state of the organisation the CEO concentrated on the dynamics between the SANTA National Secretariat (or the *‘national office’*) and MANCO - the management committee as represented by the National Council of which he was a speaking (though non-voting) member: *“There is no love lost between some members of MANCO and some of the secretariat members. The main argument is centred around the powers and influence of the secretariat on the hospitals. Do these hospitals belong to some family members in SANTA? The National Council should give us guidelines on this issue. The position of the secretariat is clear, we do not want to run SANTA, but would like to work under control of MANCO using our Constitution as the guiding document [that] is above all individuals in SANTA. There is definitely nothing like take over bid of SANTA by the National Office and it’s staff.”*

Listing SANTA’s achievements for the year, Ratsela went on to claim that they had succeeded in making SANTA known to the South African public, despite bad publicity; relations with the Department of Health had improved *‘in line with the Amsterdam declaration’*; SANTA was recognised by important bodies, such as the International Union Against Tuberculosis and Lung Disease, the World Health Organisation, and the Centres for Disease Control and Prevention; SANTA gained the bid to host the *2002 Africa Regional Conference* in partnership with the Department of Health and the Medical Research Council of South Africa; and SANTA had managed *‘to draw the strategic plan for itself so that we are more focused in the control of TB in the country given the challenges in the new Millennium’*. On the down-side the CEO stated in equally poor grammar: *“It is however sad that our operations have not been as illumenary, our community services needs to be totally restructured such that our impact can improve from our humble 4,5% to 60%”*. It is not clear what these percentages mean. Ratsela also deplored that while SANTA was responsible for 50% of the total TB beds in South Africa, conversion was a mere 77%, and in certain hospitals as low as 47%, compared to the ideal in admitted patients of 90% *‘because it is DOTS [probably meaning DOT] at the bedside’*.

After briefly referring to (not reporting on) progress with the four *‘master strategies’* that were formulated at the previous year’s *2000 Annual General Meeting*, Ratsela chose to focus on transformation as *‘top issue’* in the NGO and suggested that a serious question be put to MANCO, namely whether the association was given a mandate for transformation in 1995: *“In my view even if there was no mandate, there is no single Association or Company in South Africa which will escape the process of transformation and the implementation of the provisions of Employment Equity Act. It is due to these problems that we may be facing a heavy fine from the Dept. of Labour, because we are a bit slow in this implementation.”* The CEO ended his speech as follows: *“I would reiterate that the Secretariat are not there to take-over SANTA”* (Ratsela, 2000).

Source: Ratsela, 2000.

In March 2001, following a 'damning audit report into problems experienced by the charity', SANTA came under damning criticism in the press (Altenroxel, 2001: 6). SANTA's very future was said to be at stake and this would be decided at a meeting between the Health Minister, Manto Tshabalala-Msimang, and the provincial MECs in April of that year. Altenroxel (2001: 10) highlighted the following allegations against SANTA contained in the report:

- Funds were misappropriated at two SANTA hospitals - one was in such a severe state of dilapidation that its closure was recommended.
- SANTA staff abused cellular phones - one doctor was cited as spending more than R5 000 in a single month.
- Support from the national head office to its hospitals was 'minimal to nonexistent'. The national head office took 7.5% of the funding allocated to its 22 hospitals as an administration fee. This amounted to millions of Rands being spent at the national level, and questionably so.
- In respect of SANTA's community services, the major part of the funding was spent on salaries, travel and telephones.
- SANTA's National Council, management committees and CEO 'acted negligently in managing the cash resources of SANTA': "*Ratsela awarded himself an 11% increase (from R360 000 to R400 000 a year); had the use of two petrol cards; and abused his company credit card, spending R75 185 on personal expenses including clothes, travel and liquor.*"

Financial Mail and *Mail & Guardian* were vehemently critical of SANTA and the CEO in a series of media reports (e.g. Box 8).

Box 8 A journalist's perspective on problems with SANTA's national office and chief executive officer, 2001

National office: 'auditors have recommended that the national office of SANTA be closed down'; and 'the national office of SANTA in Gauteng has little or no communication with the 22 hospitals and clinics run by the association and wastes much-needed money and resources that should be used to combat [TB]'.

CEO:

- "Dr Andrew Ratsela ... is paid a salary of R500 000 a year for working two days' each month. He also had a Santa credit card with a R50 000 a year limit for 'incidentals', a petrol card and a top-of-the-line BMW for his use. Previous Santa CEOs had been either unpaid volunteers or were paid a token allowance."
- "Ratsela blew R5 000 on alcohol in a week, bought himself thousands of rands worth of clothing and frequently treated his entire family to lavish meals at top hotels and restaurants in Sandton."
- "Ratsela obtained a duplicate petrol card, which auditors suspect was used by his relatives. This financed thousands of rands worth of petrol. Ratsela denied having two petrol cards when quizzed by members of the organisation."
- "This week Ratsela agreed to be interviewed by the M&G, but changed his mind when he was told he would be questioned on the contents of the audit report. When the M&G phoned Santa's national office, an assurance was given that Ratsela wanted to speak in order to 'clear his name'. However; when the M&G called back - after the deadline given to Ratsela had passed - we were informed he had left to test-drive a new 4x4."

Source: Kirk, 2001: 3.

The Free State MEC for Health, Ouma Tsopo, also made known her perspective on SANTA when addressing the *2000 Annual General Meeting* of the Association (Box 9).

Box 9 The Free State MEC for Health's perspective on problems with SANTA, 2000

The MEC acknowledged that SANTA was an important role player in the battle against TB, that SANTA was strategically placed in this battle, and that the Department of Health supported SANTA. However, she added: “*Every organisation has its own internal dynamics. Those dynamics can either be positive and constructive or negative and destructive. It is unfortunate that ... some dynamics within your organisation have in the recent past been reported to be affecting the efficient marketing of SANTA. We hope that these internal dynamics will be addressed as soon as possible*”. The MEC also did not hesitate to point out what she perceived to be the problem in the organisation: ‘*SANTA, which has been a leader and torchbearer finding lasting solutions to the disease of TB, is itself plagued by racial conflicts in its ranks*’. Deploing that internal and alleged racial conflicts had already found their way into the media, she encouraged the NGO to deal with these issues in order to address the major challenge of TB.

Source: Tsopo, 2000.

4. Contracting-out of hospital services

Contracting-out of clinical services in developing countries

In a paper, *Contractual relationships between government and the commercial private sector in developing countries: are they a good idea in health?*, Mills (1995) indicated that the main aim of recent changes in management practice and theory, termed ‘*new public management*’, was to improve the efficiency of service provision by introducing market mechanisms into the public sector in developing countries. The following terminology was in general use:

- Competitive tendering (also known as ‘*market testing*’): internal staff can bid in competition with private contractors.
- Contracting-out: only private bids are allowed and contracts may be agreed without a competitive process.
- Internal contracting: only internal bids are allowed.

Mills confined her paper to contracting-out to for-profit organisations. She identified a number of reasons why governments were attracted to contracting-out, namely that contracting-out was a means of benefiting from private sector efficiency, while retaining control over services provided; could tap the benefits of functional specialisation; exploited the ability of the private sector to be better than the state at adjusting to changing prices and technologies; offered greater flexibility to cope with changing demand; and presented financial benefits – the lowest bidder could be awarded the contract. Apart from these economic arguments, contracting-out can also be attractive from a

political perspective (where government services generally fail), as well as from a management perspective (distancing of services from the political process, transparency and more flexible use of resources).

The most important aspect of contracting-out is to ensure that there is an efficient health care outcome. This entails defining the service to be provided and the conditions, rules and regulations that will govern the contract. The way in which the risk is distributed between the various parties will determine the price of the contract. Governments may establish rules whereby tender processes may be open, selective or restricted to a single contractor. This can have variable effects on the quality and costs of the services rendered. Contracting-out may range from clinical services (including hospital care) and non-clinical services (e.g. catering) to management functions. Two approaches to specification of contracts can be identified, namely to state the outcome or performance to be achieved and leaving the methods to be used to the contractor, and to prescribe the methods to be used (where outcomes are generally difficult to define). Contracts will, generally, constitute a mixture of methods and performance. The more performance-based the contract, the more risk is normally involved for the contractor and the higher the risk-premium added to the contract. Details specified in contracts are dependent on the type of services to be contracted out. For example, clinical services - being difficult to detail - may be vaguely specified and settled by negotiation after the contract has been agreed.

Contracts may be awarded to single or multiple winners, the latter increasing the attractiveness of bidding. Various ways exist to counter the tendency among bidders to bid too high, for example the '*competitive rule*' where all winners may be reimbursed at the level of the highest or the lowest bid, or at a level '*somewhere in-between*'. Contract duration may be of various lengths with variable effects on contractor commitment and subsequent levels of (financial and effort-wise) investment. Thus, shorter contracts may increase monitoring costs for both the client (government) and the contractor ('*re-tendering*' costs). Longer-term contracts may be more desirable, having the advantages of encouraging collaboration, more effectively sharing information, and avoiding excessive transaction costs. Long-term contracts may also enhance trust between the parties, which reduces the need for detailed and expensive monitoring of performance. Sanctions for non-performance of contracts are better entrenched in co-operative measures to address problems '*together*', especially for more complex clinical services, than are punitive approaches. An effective way of price adjustment over

time should be found to prompt contractors to economise or to adapt to new relative prices, and to discourage the '*cutting of corners*' and under-performance.

Studies conducted in several developing countries, including South Africa, found that public sector managers appeared to be less involved with and concerned about contract performance. In South Africa, specifically, it was found that public officials allowed contracts to persist that were highly favourable to contractors (Van Zyl *et al.*, 1996).

Contracting-out of TB hospital services in the Free State

In Chapter 1 reference is made to the '*Contracting-out study*' by the CHSR&D (Van Zyl *et al.*, 1996). This study attempted to determine the cost-effectiveness, efficiency and quality of NGO and private institutional care for TB patients in the Free State, as compared to that of the public sector. The study identified and assessed alternative ways of treating TB patients in need of institutional care, and made recommendations towards the future provision of institutional care for TB patients in the province. The main purpose of the study was to determine whether it was advisable for the Free State Department of Health to continue, renew or enter into new contracts for the hospitalisation of TB patients at NGO and private health care institutions and, if so, on what terms.

On the positive side general findings of the Contracting-out study included:

- '*Good value for money hospital services were rendered by the contractors ...*'

However, on the negative side the list was much longer:

- Hospitalisation was '*inappropriate for almost half of the patients hospitalised*'.
- The plight of TB patients in respect of their socio-economic circumstances, especially in respect of their housing and employment situation, was revealed as '*desperatè*'.
- A lack of resources for the treatment of TB in the Free State was evident.
- The agreements/contracts between the contractor hospitals and the Free State Department of Health were found to be too vague, poorly specified and in need of urgent review.
- The contractors enjoyed financial security through a '*fee-for-service-per-patient-day*' agreement. The Free State Department of Health '*controlled*' the number of patient days - a situation that resulted in a considerable fluctuation in monthly income for contractors.

- There was a lack of orientation towards comprehensive ambulatory care for TB patients in the community, and such care had to be supported by district hospitals in the case of patients in whom ambulatory care failed.
- It was shown that the national TB management policy was not being followed, specifically with reference to admissions, treatment regimens and discharge criteria.
- Hospitalisation at geographically isolated TB institutions had adverse social effects on most patients.
- The total contract costs per patient day compared slightly unfavourably with the marginal costs per patient day for the Free State Department of Health to itself render intramural care for TB patients.
- The major potential for cost saving lay in a shift from intramural care to ambulatory care. This would apply especially to that half of the patients with uncomplicated primary infection. A further reduction in the length of stay of the remaining half of the patients, e.g. cases of non-*'compliance'*, re-infection and complications, was envisaged.

Subsequently the Contracting-out study recommended to the Free State Department of Health that:

- Criteria for hospitalisation and discharge needed to be implemented and continuously monitored to effectuate the move from institutional to ambulatory care. Such a move would necessitate a dramatic improvement of PHC services rendered in the Free State, and also a re-orientation of PHC professionals towards ambulatory care for TB patients under the guidance of the national and provincial TB control programmes.
- A *'phased transitional'* policy, accompanied by capacity building and re-orientation of staff at district hospitals, should be implemented to shift intramural care for TB patients from the contractors to public district and regional hospitals.
- Clinical responsibility for TB patients in need of hospitalisation needed to be devolved to part-time or *'sessional'* medical practitioners.
- Adequate laboratory services and support systems needed to be put in place to enhance the use of sputum microscopy to diagnose and monitor TB.
- A new contractual relationship needed to be established with contractor institutions. This could be based on alternative *'decentralised'* models, including the provision of ambulatory care for TB patients.

The Contracting-out study illuminated the situation with regard to the contract agreements, whether written or unwritten, as found in 1996. The first agreement between Lifecare and the government apparently dated back to 1960. This agreement (then with Smith Mitchell & Company) was reviewed and formalised in 1974 and again in 1979. This was followed by an addendum to the agreement in

1987. It would seem that no official contract agreement existed between the government and SANTA as respects the provision of institutional health care for TB patients at Santoord Hospital. Apparently a contract existed in earlier years but was somehow *lost*. In the months preceding the Contracting-out study, SANTA apparently approached the Free State Department of Health numerous times to reach a formalised agreement, but unsuccessfully so.

Both Allanridge Chest (Lifecare) and Santoord (SANTA) hospitals were remunerated on a monthly basis according to daily tariffs per patient-day after submission of claims on the last day of each month. The contractors, taking into account the inflation rate, adjusted the day tariffs annually after submissions. In the case of Santoord Hospital, SANTA also submitted claims for the shortfall of the previous year, which was only paid at the end of each financial year. Tariffs for 1995/96 were as follows: Allanridge Chest Hospital R61-45 per patient-day and Santoord Hospital - R39-92 per patient-day. Did this signify a pertinent profit-motive on the part of Lifecare?

In respect to the contractual relationship between the Free State Department of Health and Lifecare, the length for which TB hospitalisation was to be provided at Allanridge Chest Hospital was neither stipulated in the initial contract of 1 August 1979, nor in the addendum of 27 April 1987. The only reference to termination is found in the addendum, where it was specified that either party might terminate the agreement on giving the other party a specified number of months¹⁰⁹ written notice of such intent.

The Contracting-out study found that contracting-out appeared to be troublesome in the sense that the capacity did not exist within the Free State Department of Health to effectively manage the concerned contractual relationships. In fact, seemingly very little monitoring of the scope and quality of the services rendered by Lifecare did at all take place. No clear responsibilities were assigned for the management of the contract. While the contract between Lifecare and the Department was fairly straightforward and did not impose a heavy burden on the Department, the proviso had to be met *'that sufficient skills existed within the Free State Department of Health to ensure and monitor reasonable yearly tariff increases, adequate facilities and support services, good clinical practice according to national TB treatment policies, by well trained staff - the medical personnel being provided and supervised by ... the Free State Department of Health'*

¹⁰⁹ This was left blank in the contract provided for evaluation to the Contracting-out study team.

(Van Zyl *et al.*, 1996: 34). As we now know the development of such a capacity became unnecessary as both Allanridge Chest and Santoord hospitals were closed down.

5. Summary

Outsourcing of hospitalisation services for TB to private companies and NGOs in the Free State has come to a halt. Lifecare had an umbrella contract with a 90% bed occupancy clause, but the Free State Department of Health effectively nullified this in 1999 after some 20 years of service by Allanridge Chest Hospital. Implicitly the hospital stood accused of first accounting to its shareholders for its profitability. The former Santoord Hospital was a provincial-aided health facility that ostensibly worked on a not-for-profit basis. In 2002 Santoord Hospital was closed down two years after SANTA National was facing great difficulties, including questioning of its role and handling of finances meant for hospitals.

Chapter 4 discusses profit making and contracting-out in respect of hospitalisation for TB. Contracting-out of TB hospital services in the Free State is unlikely to occur again given the current pre-occupation with strengthening the role of public district hospitals. But should this again be considered, the Free State Department of Health should invest more heavily in monitoring the contractor's performance and adherence to the requirements of the national and provincial TB control programmes.

Thus far this thesis has mostly concentrated on historical and policy forces impacting on hospitalisation for TB in the Free State, and against the backdrop of the national situation. In the next two chapters attention is directed towards the views and experiences of the two main interest groups most affected by these historical and policy changes, i.e. health workers and managers (Chapter 5) and TB patients themselves (Chapter 6).

Chapter 5 Hospitalisation for TB: the views and experiences of health workers and managers

“With some difficulty the Free State Department of Health is achieving successful TB control through its [PHC] and [DHS] approaches and through the vehicle of the WHO DOTS programme” (Janse van Rensburg-Bonthuyzen, 2003).

1. Introduction

Health workers have the tremendous responsibility attached to working with people's lives and caring for them in the best possible way: *“Coping with events such as death, pain and suffering is emotionally exhausting, even for the most experienced nurse in the ward”* (Van Staden & Du Toit, 1998: 197-198). No doubt, TB is a great concern (and stressor) to South African health workers and their managers. How best to curtail TB through hospitalisation?

Chapter 5 reconstructs health workers and managers' views and experiences of the Free State health care system in relation to hospitalisation for TB. To this end empirical data generated through the researcher's participation in the Joint Free State TB Research Project is discussed. This data spans the period 2001-2003. While no pretence of representative data at any given level is intended (sampling was purposive), the information does span the views and experiences of health workers and managers at the facility, district, provincial and national levels. The research design was descriptive and exploratory.

2. Data gathering

This study utilised self-administered questionnaires and face-to-face interviewing to capture the views of health workers and managers on hospitalisation in the interest of TB control. The former method was applied to gather data from health providers at the research feedback workshops of the Joint Free State TB Research Project in May 2002. Most of these individuals were engaged in the practice of TB control at the facility level. The latter method was used to gather data among health managers at the district and provincial levels in November 2001 and again in October-November 2003. Interviews with managers at the national level took place in November 2003.

Self-administered questionnaires

The International Union Against Tuberculosis and Lung Disease in its 2001 guidelines, *Research methods for promotion of lung health: a guide to protocol development for low-income countries*, includes the self-administered questionnaire as a legitimate method to record information in epidemiological investigations (Enarson *et al.*, 2001: 73). In the current study the choice of this method of data collection was a practical decision to gather data from the attendees (health workers and managers) of the research feedback workshops of the Joint Free State TB Research Project. This method of data gathering was possible due to their simultaneous presence at these occasions and to their being conversant and literate¹¹⁰ in English. In the design of the self-administered questionnaire the following principles were adhered to: keeping the questionnaire as short as possible, including only central research concerns, and making the questionnaire as appealing as possible (Baker, 1994: 177-178). The self-administered questionnaires were filled out by a total of 144 participants in the research feedback workshops of the Joint Free State TB Research Project. In 2002, six such workshops took place, each respectively in one of the five health districts of the Free State: Northern Free State/DC 20 (Sasolburg, 14 May, n=35); Lejweleputswa/DC 18 (Welkom, 27 May, n=24); Thabo Mofutsanyana/DC 19 (Bethlehem, 22 May, n=17 and Phuthaditjhaba, 28 May, n=23); Motheo/DC17 (Bloemfontein, 29 May, n=20); and Xhariep/DC 16 (Trompsburg, 30 May, n=25).

The self-administered questionnaire contained the following question items in respect of hospitalisation for TB:

- In your experience, what are the most common reasons necessitating hospitalisation of TB patients?
- What problems (if any) are you currently experiencing with the hospitalisation of TB patients?
- What problems (if any) resulting from Santoord Hospital's closure do you foresee?
- What changes (if any) would you like to see effected regarding the hospitalisation of TB patients in your district?

These questions were thus all open-ended. Opting for open-ended questions was motivated by the assumption that responses that are spontaneously '*available to respondents*', usually reflects what is most important to them (as opposed to what is most important to the researcher as often the case with structured multiple choice questions) (Scott; Schuman *et al.* as cited in Kane & Schuman, 1991: 82).

¹¹⁰ Even so, in a small minority of cases respondents' handwriting was illegible. The category '*missing data*' hence appears in certain tables.

Interviews

Basic, individual, in-depth interviewing is one of the most frequently used methods to gather data within the qualitative approach (Babbie & Mouton, 2001: 289). Once the appropriate, strategically-placed individuals had been identified and permission¹¹¹ had been obtained (from them and from their superiors), the researcher followed the following guidelines of Leedy & Ormrod (2001:159) to conduct ‘*productive*’ interviews: finding a suitable location¹¹², establishing rapport with interviewees, focusing on the actual rather than on the hypothetical, not ‘*putting words in people’s mouths*’, recording responses verbatim¹¹³, and being mindful that interviewees’ responses were to be treated as perceptions rather than facts. The objective with each interview was to ‘*create an event in which ... the interviewer encourages another person to articulate interests or experiences freely*’ (Lindlof, 1995: 163).

The type of interviews conducted for the current study was what Neuman (2000: 370-372) terms ‘*field interviews*’, i.e. ‘*unstructured, nondirective, in-depth interviews*’: The interviews entailed asking questions, listening, expressing interest, and recording what was said. The questions were tailored to specific people and situations. Interest was shown in responses and elaboration encouraged by using frequent probes. It was attempted not to abide by one line of thought only and not to ignore new leads offered by respondents. The respondents to a large extent determined the issues discussed. In respect of hospitalisation for TB the researcher tried to determine health managers’ views on the strengths and weaknesses of the then current situation, and encouraged them to describe idealised systems that they thought could be of most benefit to TB control, e.g. “*If you were the Free State MEC for Health, what institutional arrangements for TB hospitalisation would you establish?*” ‘*Contrast*’ questions were also used, e.g.: “*What were the differences in the services of Allanridge Chest Hospital and Santoord Hospital?*”; “*What are the advantages and disadvantages of district hospitals vs. NGO hospitals in respect of TB care?*”; and “*Santoord Hospital had a problem with absconding TB patients, how are hospitals in your district faring in this respect?*”

Interviews were conducted with the following respondents at the district level (Free State TB Control Programme, Free State Department of Health):

¹¹¹ See Annexure 2.

¹¹² Interviews usually took place in interviewees’ offices.

¹¹³ Tape recording of all interviews took place after permission for this had been obtained from respondents. It was explained to respondents that the use of the tape recorder was to save their time, as the interviewer would not have to write down their responses. The researcher undertook not to avail these tapes to others.

- Sr. E. Bolofo (Phuthaditjhaba, 14 November 2001; 4 November 2003).
- Sr. S.C. Motlhanke (Thaba Nchu, 24 November 2001; 5 November 2003).
- Sr. L. Smit (Welkom, 30 November 2001; Wesselsbron, 27 October 2003).

Interviews were conducted with the following respondent at the provincial level (Free State TB Control Programme, Free State Department of Health):

- Mrs. A. Peters¹¹⁴ (Bloemfontein, 29 November 2001; Kroonstad, 30 October 2003).

Interviews were conducted with the following respondents at the national level (Inpatient Care Team¹¹⁵):

- Dr. E. Balt¹¹⁶ (Pretoria, 31 October 2003).
- Me. P. Richards¹¹⁷ (Pretoria, 31 October 2003).

3. Health workers and managers and hospitalisation for TB

This section delineates the views and experiences of health workers and managers at the facility, district, provincial and national levels drawing on the data from the self-administered questionnaire survey and the interviews.

3.1 Views of health workers and managers at the facility level

Types of health providers

The types of health providers who participated in the self-administered questionnaire survey are depicted in Table 30. The majority (n=81/56%) of the respondents were PHC clinic and hospital TB co-ordinators. The respondents further included health workers responsible for TB treatment and DOT-supervision (n=19); TB diagnosis (n=15); sputum collection (n=4); tracing of TB patient 'defaulters' and 'contacts' (n=4); health education to TB patients (n=4); TB drug ordering and dispensing

¹¹⁴ See Photograph 30.

¹¹⁵ The Inpatient Care Team is described as 'a small, specialist, and national resource with a principal remit to address issues within NGO TB Hospitals' (Inpatient Care Team, 2003). The team is placed within the NTCP in Pretoria.

¹¹⁶ See Photograph 29.

¹¹⁷ See Photograph 29.

(n=4); TB patient admission (n=3); infection control (n=1); and HIV/AIDS co-ordination (n=1).¹¹⁸ The resulting data are, thus, a reconstruction of the views and experiences of a broad cross-section of the different categories of health workers and/or managers engaged in TB control in the Free State.

Table 30 Workshop participants' role in TB control (n and %), 2002

ROLE IN DISTRICT/FACILITY TB CONTROL PROGRAMME	NORTHERN FREE STATE	LEJWELEPUTSWA	THABO MOFUTSAN-YANA (B)*	THABO MOFUTSAN-YANA (P)*	MOTHEO	XHARIEP
TB co-ordinator	19 (54)	14 (58)	9 (53)	15 (65)	13 (65)	11 (44)
TB treatment and DOT-supervision	4 (11)	6 (25)	4 (24)	-	2 (10)	3 (12)
TB diagnosis	3 (9)	2 (8)	3 (18)	2 (9)	2 (10)	3 (12)
Sputum collection	3 (9)	-	-	1 (4)	-	-
Tracing TB patients' 'contacts' and TB treatment 'defaulters'	1 (3)	-	-	-	-	3 (12)
TB health education	1 (3)	-	-	-	-	3 (12)
TB drug ordering and dispensing	1 (3)	1 (4)	-	1 (4)	1 (5)	-
TB patient admission	1 (3)	-	1 (6)	1 (4)	-	-
Infection control	-	1 (4)	-	-	-	-
HIV/AIDS co-ordinator	-	-	-	1 (4)	-	-
Missing data	2 (6)	-	-	2 (9)	2 (10)	2 (8)
Total	35 (100)**	24 (100)	17 (100)	23 (100)	20 (100)	25 (100)

* In Tables 30-34 Thabo Mofutsanyana (B) refers to the research feedback workshop held in Bethlehem and Thabo Mofutsanyana (P) to the one held in Phuthaditjhaba

** Where percentages do not add up exactly to 100 in Tables 30-34 this is due to rounding-off to the nearest whole.

Reasons for hospitalisation

According to Van den Berg & Viljoen (1999: 277) there are seven reasons for hospitalisation for TB, i.e. only when the patient: is too ill to be treated as an out patient; is a new case who must be stabilised on medication; is unable to readily access an out patient facility; asks to be hospitalised (*'only in exceptional cases for a specific, extraordinary reason'*); suffers from TB meningitis; and/or suffers from TB and another disease such as diabetes mellitus or cardiac failure.

Table 31 depicts the most common reasons necessitating hospitalisation for TB indicated by the research feedback workshop participants in the Free State. The most common (n=48) reason for referral of TB patients to hospitals was very ill/weak/bedridden cases. Ostensibly, these patients

¹¹⁸ Eight respondents (6%) refrained from answering the question or failed to produce a legible response.

were unable to attend PHC facilities for clinic-based DOT, and too ill to be entrusted to community-based DOT.

The second most common (n=24) reason for hospitalisation was TB patients who did not adhere to treatment, or experienced difficulty in taking their drugs. In the case of those not adhering to treatment, health workers' view that their hospitalisation was necessary possibly rings of desperation and perhaps even of a punitive approach: "*If you don't take your tablets you will be sent to hospital.*" The third most common (n=17) reason for hospitalisation was retreatment TB patients who required daily streptomycin injections. This practice applied mostly to patients from commercial farms and other rural areas in the Free State located far from fixed clinics or visited only sporadically by mobile clinics. Health workers were divided as to how long they should be hospitalised. Their suggestions ranged from two weeks and '*until stabilised*' to the full duration of the intensive phase of retreatment. The fourth most common (n=15) reason for hospitalisation was MDRTB. At that stage these patients were still sent to Santoord Hospital. The data reflected the notion (also that of the National and Provincial TB Control Programmes) that while drug-susceptible TB can be managed by a PHC facility, drug-resistant TB required intramural care. It would also seem that the single drugs required for MDRTB treatment were not readily available outside the hospital (i.e. Santoord Hospital) environment. Other most common reasons for hospitalisation of TB patients included: patients not responding to treatment (n=12); when the distance from patients' homes to clinics was too far for daily attendance (n=7); patients infected with both HIV/AIDS and TB (n=3); patients with severe weight loss/malnutrition (n=2); patients with complications (n=2); patients with dyspnoea (n=1); patients who did not have access to food (n=1); patients without anyone to take care of them at home (including homeless patients) (n=1); and patients with TB as well as some other chronic disease (n=1).¹¹⁹

Interestingly, thus, the respondents (being mostly nurses) forwarded both medical and social reasons for hospitalisation for TB. Nursing, after all, is (also) a social science. Not only do poverty and distant (rural) residence pre-expose people in the Free State to TB; these factors, at times, also necessitate their hospitalisation. The social role of the (TB) hospital is pivotal.

¹¹⁹ Ten respondents (7%) refrained from filling out the question/produced an illegible response.

Table 31 Workshop participants' reasons for hospitalisation for TB (n and %), 2002

REASONS	NORTHERN FREE STATE	LEJWELEPUTSWA	THABO MOFUTSANYANA (B)	THABO MOFUTSANYANA (P)	MOTHEO	XHARIEP
Very ill/weak/bedridden patients	12 (34)	14 (58)	5 (29)	8 (35)	5 (25)	4 (16)
Non-adherence to/difficulty to take treatment	5 (14)	2 (8)	1 (6)	4 (17)	4 (20)	8 (32)
Retreatment patients/streptomycin injections	3 (9)	1 (4)	3 (18)	5 (22)	2 (10)	3 (12)
MDRTB	6 (17)	1 (4)	2 (12)	1 (4)	1 (5)	4 (16)
TB patients not responding to treatment	2 (6)	2 (8)	2 (12)	3 (13)	1 (5)	2 (8)
Distance to clinic from patients' homes too far	1 (3)	-	2 (12)	-	3 (15)	1 (4)
Dual TB-HIV/AIDS infection	2 (6)	1 (4)	-	-	-	-
TB with complications	1 (3)	1 (4)	-	-	-	-
Severe weight loss/malnutrition	1 (3)	-	-	-	-	1 (4)
Dyspnoea	-	-	-	1 (4)	-	-
Poor living conditions/no food	-	-	1 (6)	-	-	-
No one to take care of the patient at home	-	-	-	1 (4)	-	-
TB and another chronic disease	1 (3)	-	-	-	-	-
Missing data	1 (3)	2 (8)	1 (6)	-	4 (20)	2 (8)
Total	35 (100)	24 (100)	17 (100)	23 (100)	20 (100)	25 (100)

Problems with hospitalisation for TB

Table 32 depicts the problems with hospitalisation for TB noted by research feedback workshop participants. Just more than one-third (n=49) of the respondents said that they did not experience any problems. About two in ten respondents (n=32) referred to bed shortages at hospitals. Approximately one in ten respondents (n=20) stated that very ill TB patients were discharged from hospitals prematurely.

Table 32 further describes a wide diversity of problems with the hospitalisation for TB each reported by between one and six respondents. These problems ranged from poor ventilation in hospital wards to reluctance of hospitals to admit TB patients, or to only admit them once they were very ill. In some cases TB patients themselves were opposed to being admitted. Various aspects of Santoor

Hospital's operation were seen to be problematic. On the contrary, its closure was actually seen to be the problem by a single respondent.

Table 32 Workshop participants' problems with hospitalisation for TB (n and %), 2002

PROBLEMS	NORTHERN FREE STATE	LEJWELEPUTSWA	THABO MOFUTSANYANA (B)	THABO MOFUTSANYANA (P)	MOTHEO	XHARIEP
'No problem'	17 (49)	8 (33)	6 (35)	2 (9)	3 (15)	13 (52)
Bed shortage at hospital	6 (17)	6 (25)	2 (12)	4 (17)	8 (40)	6 (24)
Premature discharge from hospital of very ill patients	2 (6)	3 (13)	1 (6)	11 (48)	2 (10)	1 (4)
Hospital reluctant to admit ill TB patients	3 (9)	2 (8)	2 (12)	-	-	1 (4)
Doctors do not adhere to NTCP guidelines	2 (6)	2 (8)	-	1 (4)	-	-
Patients fail to turn up to make use of transport arranged to hospital	-	1 (4)	1 (6)	1 (4)	-	1 (4)
Hospital/doctors over-reliant on X-rays/do not perform sputum tests	-	-	-	3 (13)	-	1 (4)
TB patients do not want to be hospitalised for extended periods	1 (3)	-	-	-	2 (10)	-
Hospital doctors lack knowledge about TB	-	-	1 (6)	1 (4)	-	-
Difficulty to transport TB patients to hospital	1 (3)	-	-	-	-	1 (4)
TB patients refuse to be admitted to or abscond from Santoord Hospital	-	-	2 (12)	-	-	-
Lengthy sputum test turn-around times in hospital	1 (3)	-	1 (6)	-	-	-
Santoord Hospital's closure	-	-	-	-	1 (5)	-
Doctors discharge TB patients when they discover that they are HIV-positive	-	1 (4)	-	-	-	-
Santoord Hospital takes only MDRTB patients	-	1 (4)	-	-	-	-
Long distance to Santoord Hospital	1 (3)	-	-	-	-	-
Hospital/clinic unable to obtain single TB drugs	-	-	-	-	1 (5)	-

PROBLEMS	NORTHERN FREE STATE	LEJWELEPUTSWA	THABO MOFUTSANYANA (B)	THABO MOFUTSANYANA (P)	MOTHEO	XHARIEP
Food shortage in hospital	-	-	-	-	1 (5)	-
No isolation facility in hospital	-	-	-	-	1 (5)	-
Poor ventilation in hospital wards	-	-	-	-	1 (5)	-
TB patients' apathy	-	-	-	-	-	1 (4)
Misdiagnosis/patient's history not taken	-	-	1 (6)	-	-	-
Strict budgetary control in hospital	1 (3)	-	-	-	-	-
Total	35 (100)	24 (100)	17 (100)	23 (100)	20(100)	25(100)

Problems anticipated due to Santoord Hospital's closure

Table 33 delineates the research feedback workshop participants' anticipation of the problems that would emanate from Santoord Hospital's closure. The greatest proportion (n=54) of respondents were perturbed that MDRTB would henceforth be neglected and would consequently spread in the district/province. These respondents emphasised that (general) hospital staff were not specifically trained to manage MDRTB. A large proportion of respondents (n=30) foretold of drug-related problems in the treatment of MDRTB to follow Santoord Hospital's closure. They were anxious that the single drugs used in MDRTB were not generally available to public health care facilities. More than one in ten respondents (n=19) expected an unmanageable influx of TB patients to public hospitals when Santoord Hospital closed. They also felt that these public hospitals were not sufficiently staffed to deal with such a development. Such hospitals would, consequently, discharge TB patients prematurely. Two respondents explicitly stated that Santoord Hospital patients were '*not welcome*' at other hospitals.

It was, however, also a revelation that almost one-quarter (n=34) of the health practitioners participating in the self-administered questionnaire survey, anticipated Santoord Hospital's closure to be '*no problem*'. These respondents might have been better informed than the rest about the imminent establishment of the MDR-unit at Dr. J.S. Moroka Hospital.

Table 33 Workshop participants' problems with the closure of Santoord Hospital (n and %), 2002

PROBLEMS	NORTHERN FREE STATE	LEJWELEPUTSWA	THABO MOFUTSANYANA (B)	THABO MOFUTSANYANA (P)	MOTHEO	XHARIEP
MDRTB will spread/hospital staff not trained to deal with MDRTB	13 (37)	10 (42)	13 (76)	9 (39)	6 (30)	3 (12)
'No problem'	11 (31)	8 (33)	1 (6)	6 (26)	6 (30)	2 (8)
Single drugs dispensed at Santoord Hospital not available elsewhere	9 (26)	3 (13)	2 (12)	6 (26)	2 (10)	8 (32)
Hospitals will experience unmanageable increase in TB patients	1 (3)	2 (8)	1 (6)	2 (9)	4 (20)	9 (36)
Hospitals will discharge TB patients too soon	-	-	-	-	1 (5)	2 (8)
Santoord Hospital patients 'not welcome' at other hospitals	-	1 (4)	-	-	1 (5)	-
Other hospitals not as well equipped as Santoord Hospital	1 (3)	-	-	-	-	1 (4)
Total	35 (100)	24 (100)	17 (100)	23 (100)	20 (100)	25 (100)

Suggested changes to hospitalisation for TB

Finally, the research feedback workshop participants' views on what changes generally should be affected to hospitalisation for TB in their district/in the Free State were captured in the self-administered questionnaires. Almost one-third (n=41) of the respondents offered no suggestions to improve the system (Table 34). Among those who were in favour of changes, the largest group (n=20) advocated for special 'TB-units' in all hospitals. These respondents were probably less informed about the new MDR-unit and thought that hospitals generally should be able to cater for MDRTB. Clearly they considered the MDRTB problem grave enough to justify the enormous expense that such a strategy would entail.

Thirteen respondents suggested that hospitalisation for TB could be improved by avoiding premature discharge of patients. A further thirteen respondents felt that a facility for long-term¹²⁰ care of TB/MDRTB patients was indispensable or stated that Santoord Hospital's closure was

'impossible'. The remaining suggestions were to rectify a broad range of other actual and anticipated problems depicted in Tables 32 and 33.

Table 34 Workshop participants' suggestions of changes to be made to TB-related hospitalisation (n and %), 2002

CHANGES	NORTHERN FREE STATE	LEJWELEPUTSWA	THABO MOFUTSANYANA (B)	THABO MOFUTSANYANA (P)	MOTHEC	XHARIEP
No changes needed/suggested	12 (34)	7 (29)	2 (12)	2 (6)	8 (40)	10 (40)
'TB-units' in all hospitals	5 (14)	5 (21)	1 (6)	2 (9)	2 (10)	5 (20)
TB patients not be discharged prematurely	1 (3)	1 (4)	1 (6)	7 (30)	1 (5)	1 (4)
Need a facility for long-term hospital care of TB/MDRTB patients	2 (6)	2 (8)	4 (24)	-	4 (20)	1 (4)
TB patients to be able to more readily access hospitals	3 (9)	2 (8)	-	1 (4)	1 (5)	2 (8)
Retreatment patients receiving streptomycin injections to be admitted	1 (3)	1 (4)	-	4 (17)	-	-
Diagnosis in hospitals according to the NTCP guidelines (sputum testing)	-	-	1 (6)	4 (17)	-	-
Unnecessary hospitalisation for TB to be avoided	1 (3)	1 (4)	-	1 (4)	-	1 (4)
More hospital health workers to be trained/availed for TB care	-	-	3 (18)	-	-	1 (4)
Hospital budgets to be increased	3 (9)	-	1 (6)	-	-	-
TB patients to receive improved care in hospitals	-	1 (4)	-	-	-	2 (8)
Collaboration/communication/referral between hospitals and PHC clinics to be improved	-	-	2 (12)	1 (4)	-	-
Hospital doctors to be trained according to the NTCP guidelines	1 (3)	1 (4)	1 (6)	-	-	-
Staff to be rotated in hospitals	-	1 (4)	-	-	2 (10)	-
More hospital beds for TB care	-	-	-	1 (4)	1 (5)	-

¹²⁰ See Photograph 5.

CHANGES	NORTHERN FREE STATE	LEJWELEPUTSWA	THABO MOFUTSANYANA (B)	THABO MOFUTSANYANA (P)	MOTHEC	XHARIEP
TB patients without family support to be hospitalised	-	-	-	-	-	1 (4)
Avoid treating HIV patients who do not have TB with TB drugs	-	1 (4)	-	-	-	-
All TB patients who are non-adherent to treatment to be hospitalised/' <i>strictly monitored</i> '	1 (3)	1 (4)	-	-	-	-
All TB/MDRTB patients to be treated at local hospitals to allow for family support	2 (6)	-	-	-	-	-
Hospitals to have special cubicles for ' <i>TB-symptomatic</i> ' patients awaiting diagnosis	-	-	-	-	1 (5)	-
Hospitals need wards especially equipped for TB care/extraction fans	-	-	-	-	-	1 (4)
Less hospitalisation of retreatment patients (employers to transport patients to clinics)	-	-	1 (6)	-	-	-
All professional nurses to be allowed to refer TB patients to hospital	1 (3)	-	-	-	-	-
TB patients to be admitted to hospitals when they request it	1 (3)	-	-	-	-	-
TB patients to be better informed/educated on admission to hospital	1 (3)	-	-	-	-	-
Total	35 (100)	24 (100)	17 (100)	23 (100)	20 (100)	25 (100)

The self-administered questionnaire survey in May 2002 revealed a general state of disconcertedness among health providers about the state of hospitalisation for TB in the Free State. While certainly not unanimous in this respect, the respondents cautiously suggested that the closure of Santoord Hospital, the move towards an elevated role for the district hospital in TB control, and, especially, the new MDR-unit at Dr. J.S. Moroka Hospital (those respondents who were informed about this), were promising developments.

3.2 Views of district TB co-ordinators

District TB co-ordinator: Welkom/Thabong study area

Earlier views – 2001

The district TB co-ordinator in the Welkom/Thabong study area mentioned the following problems with the diagnosis of TB in hospitals: district hospitals did not have TB registers; hospitals were over-utilising X-ray diagnosis; only after diagnosis of TB by means of X-rays would hospitals commence treatment of patients; on discharge of patients from hospitals PHC clinics (in accordance with NTCP policy) would conduct sputum testing, often, sputum-negative results were obtained by PHC clinics for TB patients diagnosed by X-ray in hospitals; there was not a doctor in the district who could read X-rays 'accurately'; and lesions of previous TB in the lungs were often misread as current TB.

Because TB in children was difficult to diagnose through sputum testing (it is difficult to obtain sputum from small children), the use of X-ray testing for children was still favoured in the district. But again, the available doctors could not accurately read the X-rays. The problem was pronounced in children from farms who had to be transported as far as 150 kilometres to attend a hospital for X-ray testing. Therefore, the district TB co-ordinator advocated the use of the score sheet for diagnosis of TB in children. However, the hospitals had not yet implemented the score sheet.

In the beginning of 2001 community service doctors started working in the study area. They were not at all informed about the new TB policies and were subsequently provided with guideline documentation by the district TB control programme. But, because these doctors did not adhere to the guidelines¹²¹, training was arranged for them. This training was presented by Dr. Mvusi from the NTCP on 31 October 2001 and attended by 34 doctors. At the end of Dr. Mvusi's presentation one of the doctors rose from the floor and said: "*Dit is nou baie mooi en alles, maar dit werk nie vir ons nie.*"¹²²

Asked how she thought this problem could ever be resolved, the district TB co-ordinator stated that all they could do was to interact with the doctors as frequently as possible. To this end, another

¹²¹ In fact, the district TB co-ordinator wondered if the doctors 'even opened' the guideline documents.

¹²² This may be translated as: "*That is all good and well, but it does not work for us.*"

series of *'doctor'* TB training was planned for March 2002 and would this time be presented by the then provincial TB co-ordinator of Mpumalanga, Dr. E. Balt, who was *'very good in TB'*, and Dr. K. Weyer of the Medical Research Council of South Africa. The district TB co-ordinator stated that both of these doctors were *'strong personalities'* and that they could possibly convince the local hospital doctors to adhere to the national and provincial guidelines as they should.

The district TB co-ordinator, however, also believed that nurses at PHC clinics could take more trouble to communicate with hospital doctors about the diagnosis of TB patients, especially when a doctor diagnosed TB, but this could not be confirmed by sputum testing at the clinic. Such a practice would improve team building in the district TB control programme.

Another problem at the district hospitals was that these facilities had to *'empty beds'*. At PHC clinics TB suspects who returned negative sputum results would be placed on antibiotic treatment for seven days. But, hospital staff felt that they could not accommodate such patients for seven days. X-ray testing would thus take place to hasten diagnosis. Then, when the patient reached the clinic, TB treatment would be halted in the case of a negative sputum result and the patient would rather be treated with antibiotics. The district TB co-ordinator suggested that this *'stop-start'* treatment practice probably contributed to drug-resistance in the study area. Other problems mentioned by the district TB co-ordinator in respect of TB treatment practices by doctors were a case of a child being placed on an adult drug regime and TB treatment duration of eighteen months (instead of the six months prescribed by the NTCP).

In respect of Santoord Hospital the district TB co-ordinator stated that the distance to the hospital was prohibitive, especially making visiting of patients impossible for their families. Often patients on *'pass-out'* from Santoord Hospital would not return to the hospital. The patients would experience transport difficulties in returning to Santoord Hospital when they regularly visited the district to collect their *'pensions'*. With reference to Santoord Hospital the district TB co-ordinator stated that the main complaints from TB patients from her district was that it was too far and that they did not receive enough food at the hospital. On the positive side, she applauded the conduct of the matron

(S. Plekker) who took much trouble to ensure follow-up care at PHC clinics in the district for Santoord Hospital patients once discharged: “*Sy doen regtig moeite.*”¹²³

As regards the readiness of hospitals in the study area to accommodate more patients once Santoord Hospital had closed, the district TB co-ordinator was concerned about the lack of staff at these hospitals. While hospitals such as Hoopstad Hospital ‘reserved’ four beds for TB, the general bed shortage in hospitals necessitated the use of these ‘TB’ beds for other patients. In reality these hospitals would merely diagnose TB patients before sending them home. In effect, hospitals such as Winburg Hospital could not claim that any number of beds were available for TB. The district TB co-ordinator was particularly concerned about retreatment TB patients from farms who needed to be hospitalised for purposes of the daily streptomycin injection. She stated that she could not imagine that the district hospitals would accommodate this need and doubted that such patients would return to the hospitals after weekend leave.

The district TB co-ordinator deplored the closing of Allanridge Chest Hospital, especially because of its location in the actual district. It was much easier for TB patients to return to this hospital after weekend visits. Generally, she saw the lessening of hospital beds implied by the closure of Allanridge Chest and Santoord hospitals as a negative development in TB control in the Free State. She felt that, at least one ward at the then Goldfields Regional Hospital¹²⁴ ought to be allocated for TB patients. It need not have been heavily staffed with nurses, but could make use of trained DOT-supporters¹²⁵ to ensure adherence to treatment. A full-time doctor would not have been necessary but it would have been helpful if a physician could visit the ward once a day. This ward would have been especially useful for retreatment patients and very ill patients who required intravenous resuscitation or medication. She further stated that such an arrangement would have prevented the kind of ‘*abusive*’ practice that previously occurred in the district when a TB meningitis patient who was too ill to walk to the clinic, had summarily been sent home by a hospital. In fact, the district TB co-ordinator stated that one facility, such as she envisioned for Goldfields Regional Hospital, was needed in each of the Free State’s regional complexes.

¹²³ Translation: “*She really takes trouble.*”

¹²⁴ Now named Bongani Hospital.

¹²⁵ Dr. J. Dick of the Medical Research Council of South Africa stated that finding the right person to act as DOT-supporter was ‘*quite a challenge*’: “*They must be caring, accepted by their peers and preferably functionally literate. To allow time for*

Later views – 2003

Two years later, the district TB co-ordinator in the Welkom/Thabong study area reflected on the training of public sector, as well as private, physicians by Dr. Balt in March 2002. The attendance of doctors at this training was not as good as during the first round of training. She felt that Dr. Balt did a fine job, but that some of the doctors most in need of training did not show up. Seemingly, these doctors still felt that *'they know enough about TB'*.

In July 2003, somewhat surprisingly, doctors requested a meeting with the district TB control programme staff. As it turned out, the reason why the doctors wanted this meeting was that they were aggrieved that PHC nurses were not acting on their instructions when they (the doctors) referred patients to clinics. This meeting was well attended by both doctors and nurses. The doctors stated that if they diagnosed TB with X-rays then *'it was TB'*. One doctor said that it was *'unnecessary and a waste of time'* to conduct sputum testing once he had diagnosed TB by X-ray. But in the end, the doctors reportedly *'kept quiet because they realised that we (the nurses) had more problems with them than they with us'*. Problems that the nurses voiced at this meeting was that doctors sometimes placed patients on prophylactic treatment (INH only) for six months which was not in accordance with the TB treatment policy in the Free State. Doctors also intentionally and wrongly diagnosed extra-pulmonary TB, *'because they knew that nurses were not allowed to diagnose this type of TB'*: *"Dit is nou 'n lekker ompaadjie"*¹²⁶.

At the aforementioned meeting the nurses also expressed disconcertedness with the fact that streptomycin injections for retreatment patients who were already undergoing such treatment at PHC clinics, when they were hospitalised, was halted/interrupted. It was not clear what the reason for this was – possibly such patients failed to take their *'green cards'*¹²⁷ with them to hospital. Another complaint by nurses was that doctors placed TB meningitis patients on an 18-month treatment regime, while the NTCP prescribed nine months. Nurses also complained that doctors sometimes refrained from indicating which method of TB diagnosis was used on referral letters. On these forms

training, they must not be part of the essential core staff compliment. And although we stress that they can be of either sex ... the majority of lay health workers are women" (MRC News, 2001)

¹²⁶ Translation: "What an easy way out."

they (the doctors) would simply state: *'PTB – treat'*. The nurses stated that the doctors were over-utilising the extraction of stomach juices from children as method to diagnose TB. This they (the nurses) felt was an unreliable method of diagnosis, seeing that the sputum so obtained had usually become too diluted to yield accurate results. The extraction process was also an unnecessary traumatic experience for a child to undergo. Doctors reportedly were (still) loath to apply the score sheet diagnosis system. Standardised operational (PHC) procedures affronted doctors' for some reason. Perhaps they preferred to apply the '*clinical gaze*¹²⁸' and to pronounce diagnosis unhindered by government policy.

The district TB co-ordinator was disappointed that TB patients '*getting lost*' once referred from the hospital to a PHC clinic, was (still) a problem. She stated that Dr. Nhiwatiwa (employed by the University of the Free State's Faculty of Health Sciences) established that 55% of the referred patients were lost in this way. She related the case of a district hospital doctor who diagnosed five cases of miliary TB for which treatment spans nine months and includes antibiotics. But, suspecting that these were erroneous diagnoses, she availed the concerned X-rays to Dr. Balt at the national level who confirmed that these patients did not have miliary TB and some, in fact, did not have any form of TB at all. The district TB co-ordinator stated that doctors still found ways to block TB patients' access to hospital. She was in the possession of a letter written by a physician stating that '*his*' district hospital was not a '*dumping ground*' for TB patients.

The district TB co-ordinator was (still) satisfied with the good co-operation she received from the mines and especially Harmony and Ernst Oppenheimer Hospitals. A previous problem of not receiving feedback from Ernst Oppenheimer Hospital was resolved when it and Harmony Hospital amalgamated. All mine hospitals now regularly provided their statistics to the district TB control programme and staff from all had undergone training in the NTCP. Mine hospital workers also regularly underwent TB training in the district together with their public sector counterparts. Mine and public sector health care providers were now following the same policies and protocols. This she described as a very positive development, because mine hospitals, like Harmony Hospital, quarterly diagnosed as many as 340, and St. Helena Private Hospital as many as 100, TB patients. These

¹²⁷ The '*green card*' (GW 20/15) is a patient-held card issued under the auspices of the NTCP in terms of which the patient is categorised as a new patient ('*N*'), retreatment after previous cure ('*RC*'), retreatment after previous completion ('*RAC*'), retreatment after failure ('*RF*'), or retreatment after interruption ('*RI*').

¹²⁸ Foucault cited in Cockerham (1992: 4) – see Chapter 3, Paragraph 2.

hospitals performed the diagnosis of TB at the mines before patients were transferred to 'dressing stations' for treatment. Her statement that all role players in TB control in the district were collaborating was evidenced by fine attendance of the quarterly meetings of the district TB task team. Representatives of the district and mine hospitals, the laboratory and the pharmaceutical dispensary regularly attended these meetings. Even from Dr. J.S. Moroka Hospital's MDR-unit in the distant Thaba Nchu, representatives travelled to Welkom to attend these meetings.

Thus far the district TB co-ordinator had not received any complaints about the new MDR-unit. Generally she felt that the district hospitals were accommodating TB patients better than expected. However, there were some instances where the district hospitals were too full to provide TB patients with intramural care, e.g. Virginia Hospital. The district TB co-ordinator hoped that a new step-down facility planned at Bongani Hospital could be used when such problems arose. An arrangement was needed, however, that TB patients could go directly to that facility and that the proviso that they should first be channelled through the casualty section, could be waved.

District TB co-ordinator: Phuthaditjhaba study area

Earlier views – 2001

The district TB co-ordinator in the Phuthaditjhaba study area stated that a diversity of problems was experienced with the hospitalisation of TB patients. She viewed the non-hospitalisation of retreatment patients as the major TB control problem in her district. Although bed occupancy at both Elizabeth Ross (district) and Mofumahadi Manapo Mopeli¹²⁹ (regional) Hospital was not at a maximum, these hospitals were, reportedly, very reluctant to admit TB patients.

She stated that there was, however, at least an open communication channel with Mr. Masousa, the TB co-ordinator at Elizabeth Ross Hospital. She and Mr. Masousa lamented that there was no separate facility for TB patients at this hospital, and that TB patients were accommodated in the general male and female wards, although admittedly in separate rooms. Nurses at PHC clinics accepted X-ray diagnoses by doctors in the hospital. Then these nurses would refrain from conducting sputum testing 'because the patient was diagnosed by a doctor'. The district TB control programme tried to instil in nurses that X-ray diagnosis by doctors did not preclude the necessity for

sputum testing at clinics. The district TB co-ordinator stated that she herself sometimes did not trust the diagnoses of especially the community service doctors. Sometimes it was not even clear if X-rays had actually confirmed these doctors' diagnoses. She referred to this as the *'empty card syndrome'*. Dr. Gazaal at Elizabeth Ross Hospital and Dr. Moloi at Mofumahadi Manapo Mopeli Hospital were, however, experienced and their TB diagnoses were respected. Also on the positive side, very ill TB patients in the district were at least hospitalised until they had stabilised.

The district TB co-ordinator said that for TB patients in the district being referred to Santoord Hospital was *'like a sentence to die'*. Although no patient had bluntly refused to be transferred to Santoord Hospital, they would argue that they could not go because it would affect their pensions. Nevertheless, the district TB co-ordinator was not in favour of Santoord Hospital's closing down, and stated that it should rather be improved *'here and there'*. She stated that the *'environment'* of Santoord Hospital was better than that of a public hospital. Even so, the distance to Santoord Hospital was prohibitive and she thought that there would be less absconding from local district hospitals if Santoord Hospital closed. At the same time she foresaw that smaller district hospitals, e.g. Vrede Hospital, would have much trouble to hospitalise TB patients for extended periods. The district TB co-ordinator thought that the lessening of TB beds in the province *'was heading to a problem'*. She did not think that DOTS was working as well in her district as people generally thought. She was of the opinion that the reduction of TB beds would have to be reviewed by the province.

The district TB co-ordinator was concerned about the morale of hospital health workers. She suggested that some had become disillusioned by the hopelessness of the HIV/AIDS epidemic, and stated that all health workers became demoralised when observing the death of their patients *'every day'*. Dual TB and HIV/AIDS infection meant that the patients were just so much sicker, unable to walk to clinics, and more reliant on care by disgruntled hospital staff.

Later views – 2003

Two years later the district TB co-ordinator in Phuthaditjhaba stated that Santoord Hospital's closure had had little impact in her district. Traditionally Elizabeth Ross Hospital bore the brunt of TB hospitalisation in the district anyway. Her main problem (still) was with the non-hospitalisation of retreatment patients requiring the streptomycin injection. She was alarmed by a practice of *'carting*

¹²⁹ See Photograph 19.

retreatment patients to clinics in wheelbarrows. Elizabeth Ross (District) Hospital was, however, now hospitalising such patients. Mofumahadi Manapo Mopeli (Regional) Hospital, even though it did not normally admit any TB patients, made exceptions when these patients were critically ill.

A persisting problem at Elizabeth Ross Hospital was that of overuse of X-ray diagnosis. A new TB co-ordinator for the hospital, Me. April, was appointed from among the administrative staff in the hope that she would have more *'clout'* with the doctors. She would also have to advocate for the admission of retreatment patients. This was a never-ending problem in Qwaqwa with its high turnover of public physicians. The chief medical officer of the district in Bethlehem, Dr. B. Wolmarans, was doing her best to re-orientate doctors to the requirements of the NTCP.

Reminding the district TB co-ordinator that the previous series of fieldwork in the district had revealed distrust in sputum testing at the Mofumahadi Manapo Mopeli Hospital, she was asked to comment on the *status quo*: She stated that they were now sending sputum from PHC clinics to Bethlehem Laboratory. Seemingly, the laboratory at Mofumahadi Manapo Mopeli Hospital was still operating, but handling just the sputum testing required by itself and by Elizabeth Ross Hospital. She said that past problems at this laboratory were not due to a lack of confidence in the laboratory, but rather due to its staff shortage. Now there was a new manager at the laboratory, computers had been installed, and a vehicle to transport sputum samples was in the process of being procured. They had also already advertised to recruit more staff to the laboratory.

The district TB co-ordinator regretted that diagnosis of PTB by X-rays alone was still happening. This was despite the hospitals having been provided with *'referral books'* and several attempts having been made to enlighten doctors about the need for all TB patients to undergo sputum testing. A confounding problem was that hospitals were (still) not using TB registers.

Like all over the province MDRTB patients from Qwaqwa were now being hospitalised at Dr. J.S. Moroka Hospital in Thaba Nchu. The district TB co-ordinator confirmed that, on discharge from the MDR-unit, nurses accompany patients to PHC clinics, and then also advise PHC nurses on how to manage these patients. She felt that the MDR-unit was working well and said that she had not received a single complaint about the unit from patients or health workers. Admittedly, one patient from her district had absconded from Dr. J.S. Moroka Hospital, but this was apparently due to the

patient's *'cultural conviction'* that she should not be hospitalised. At any rate, health workers from Dr. J.S. Moroka Hospital and from a local PHC clinic *'worked together'* in devising a solution that suited this patient.

Asked how she would change hospitalisation for TB in the Free State if she could, the district TB co-ordinator stated that she would require more commitment from district hospitals to TB control. Elizabeth Ross Hospital, for example, neither had specific beds nor separate accommodation for TB patients. She did not think that a separate TB hospital, such as those previously provided by Lifecare and SANTA in the Free State, was necessary in addition to the new MDR-unit.

District TB co-ordinator: Thaba Nchu study area

Earlier views – 2001

The district TB co-ordinator in the Thaba Nchu study area was apprehensive about an escalating TB-HIV/AIDS epidemic in her district. She stated that she thought that the institution of the new MDR-unit at Dr. J.S. Moroka Hospital would be a positive development. It would mean that the cumbersome arrangement of first hospitalising MDRTB patients at Pelonomi Hospital in Bloemfontein *en route* to Santoord Hospital could be avoided. This arrangement was necessary due to the lack of doctors at Santoord Hospital that implied that patients first had to be stabilised at Pelonomi Hospital. She was confident that the MDR-unit would well be able to accommodate MDRTB patients for extended periods of time.

The district TB co-ordinator felt that increased workload for district hospitals when Santoord Hospital closed, would not be insurmountable. She stated that unlike, for example, diabetes patients who require treatment three times per day, TB patients require treatment only once per day, and thus did not place a huge burden on nursing staff in a hospital. In fact, she thought that Santoord Hospital with its 28 nurses was hugely overstaffed. She was of the opinion that the physical infrastructure of Santoord Hospital was not at all ideal and allowed transmission of MDRTB to the general male and female wards. She also referred to the difficulty for patients' visitors to reach Santoord Hospital. PHC nursing staff in her district complained that *'back-referral'* from Santoord Hospital suffered from a lack of communication. However, she added that this situation was confounded by the unavailability of working telephones in certain rural clinics in the district. Nurses

reportedly *'heard from the community that so and so was discharged from Santoord Hospital and had been back perhaps for a month'*. She was attempting to solve this problem by having requested Santoord Hospital to facsimile transfer letters to her office, after which she would see to it that the concerned PHC facility was informed.

She thought that Santoord Hospital was not living up to its *'intended function'* of hospitalising MDRTB patients, and was perhaps also overemphasising care of *'normal'* TB patients. She thought that the major motivation for Santoord Hospital's closure was the *'poor quality of care'* and not so much *'management issues'*. Quality of care at Dr. J.S. Moroka Hospital, thereupon, she believed had improved over the previous five years. The hospital was managed well administratively and its doctors were doing *'fine work'*. In respect of hospitals in the district, generally, she felt that the major need was for (continued) training in the guidelines of the NTCP. Apparently many of the health workers who had undergone TB training had left the district: *'so we have to start afresh'*.

Later views – 2003

Two years later, the district TB co-ordinator in the Thaba Nchu study area stated that hospitalisation for TB at Dr. J.S. Moroka Hospital was unproblematic. The hospital had succeeded in meeting the demand for this type of care. She stated that the current situation was a vast improvement over the previous situation at Santoord Hospital marked by the lack of a physician and inaccessibility due to its location. Thereupon, *'everybody'* knew where Dr. J.S. Moroka Hospital was. Although Dr. J.S. Moroka Hospital did not specifically reserve beds for TB (other than in the MDR-unit), the district TB co-ordinator could not recall any instance when TB patients had to be turned away from the hospital. The hospital did try to separate infectious TB patients from other patients. Sputum testing was the norm with X-rays only being used *'if really necessary'*.¹³⁰ She believed that referral of TB patients from district hospitals to PHC clinics had improved following the series of doctors' TB training in 2001. She stated, however, that the need to train doctors, *'especially those fresh from school'*, was continuous. She felt that the Faculty of Health Sciences at the University of the Free State and the Medical University of South Africa could do more to train doctors in the new TB policies and protocols *'from the beginning'*. The district TB control programme with its limited resources had to carry out this task. Moreover, young doctors typically stayed in the district for only six months, and unlike the case of permanent resident doctors, efforts put into their re-orientation had little lasting

dividends for Thaba Nchu. Just like in Phuthaditjhaba doctors were quick to seek '*greener pastures*'. PHC nurses, on the other hand, she thought were well-trained in TB care, although many of the most competent hospital nursing staff preferred to work in Bloemfontein, rather than in places like Thaba Nchu.

The district TB co-ordinator felt that the Free State Department of Health acted correctly by closing down Allanridge Chest and Santoord hospitals. She was of the opinion that, generally, district hospitals in the province were coping with the demand for TB care. In fact, she stated that in some cases TB patients, who do not really warrant it, were being hospitalised. But, she said, unnecessary hospitalisation of TB patients was now less of a problem than it was at Santoord Hospital. She referred to a case from her district that was hospitalised for MDRTB at Santoord Hospital, whilst this patient was, in fact, '*only*' resistant to INH.

The district TB co-ordinator stated that the current system for hospitalising TB patients in the Free State could be improved by compelling district hospitals to reserve (isolated) beds for TB and by allocating specific staff for TB care at these hospitals, '*because at times TB patients are difficult patients ... we need people who know them better*'. In respect of the MDR-unit, the district TB co-ordinator thought that it was providing good quality of care in an adequate physical environment (except for the ultraviolet lighting still to be installed): "*It is a big and beautiful ward.*" She also felt that security arrangements at the MDR-unit were such that it avoided social problems such as those resulting from alcohol misuse by patients.

3.3 Views of the provincial TB co-ordinator

Earlier views – 2001

The TB co-ordinator for the Free State admitted that major problems were experienced at Santoord Hospital. Especially patients with a higher socio-economic status were dejected at the hospital. There were also very high interruption and absconding rates. Santoord Hospital patients were often unwilling to return there if they had to be hospitalised again. In fact, the patients were so unhappy at the hospital that the whole situation had become '*politicised*' and '*militant*'. The patients wrote letters to the Free State MEC for Health and she (the MEC) demanded that the problems at Santoord

¹³⁰ This was the only remark to this effect recorded in the entire study.

Hospital be resolved speedily. Amongst others, the patients complained about food at the hospital. This problem reportedly came to an end when catering was outsourced to a private company. The patients also had serious problems with the Santoord Hospital staff that they stated were very '*dominating*'. The fact that there was '*no relationship*' between the matron¹³¹ and the centre supervisor only made matters worse.

According to the provincial TB co-ordinator Santoord Hospital was so full that the situation was at times inhumane. Apparently when a patient died, the body was simply covered and would lie there at length to the obvious knowledge and dismay of other patients. MDRTB patients were accommodated between other patients until such time a World Health Organisation team visited the hospital and protested against this practice. Ventilation in the wards was poor as windows were only opened when '*outsiders*' were expected. At one stage doctors conversed with patients from behind a glass partition. For all these reasons, the Free State TB co-ordinator said that she understood the necessity to close down Santoord Hospital.

On the other hand, the provincial TB co-ordinator was of the opinion that it was a great pity that Allanridge Chest Hospital was closed down. Allanridge Chest Hospital was located more centrally in the Free State, and better able to accommodate the large numbers of patients from the mines. She thus was in agreement in this respect with the district TB co-ordinator for the Welkom/Thabong study area – seemingly the closer health managers were located to the Allanridge Chest Hospital, the more appreciative they were of it. This appreciation, however, related not only to location of the hospital, but also to its '*better infrastructure*' and its full-time doctor (Dr. Oosthuizen). In general, Lifecare's approach was thought to be more '*professional*' than that of SANTA at Santoord Hospital.

The provincial TB coordinator was quite confident that district hospitals in the Free State could accommodate the increased load that would result from the closure of Santoord Hospital. The only district hospital she had reservations about was Winburg Hospital. It was very over-utilised at the time. She emphasised that district hospitals '*had to*' ('*hulle móét*') reserve beds especially for TB patients. She believed, however, that at those district hospitals where bed shortages occurred, beds could always be found at other district hospitals.

¹³¹ The matron's perspective on the situation at Santoord Hospital, and the reasons for her poor relationship with the centre supervisor, are depicted in Chapter 2 (Paragraph 3.3).

The district TB co-ordinator was worried that the registration of TB patients at hospitals was a major problem. Some patients were just in hospital just for a day or two before being discharged to clinics and marked as '*transferred-out*' in the hospital's register. At the clinic they were then to be registered as '*transferred-in*'. However, many of them never actually reached the clinic. In general, it was very difficult, if not impossible, for hospitals to determine cure rates for the patients in whose treatment they played a role. A better system, according to the provincial TB coordinator, was for someone such as the person responsible for that patient's VCCT, to accompany the patient to the clinic where he/she was then to be registered as a '*new*' patient. Apparently such a system was already in practice in Pretoria.

The Free State TB Control Programme was aspiring to establish an MDR-unit similar to the one in North West. The provincial TB co-ordinator was already then optimistic about the choice of Dr. J.S. Moroka Hospital as home for the new MDR-unit, although she felt that the then Goldfields Regional Hospital in Welkom might have been an even better location. She did not agree with the centre supervisor of Santoord Hospital that the location of the MDR-unit in the middle of Thaba Nchu would cause social problems. She said this was unlikely if the MDR-unit was modelled along the lines of the one at Klerksdorp Hospital. At any rate, she felt that Santoord Hospital was the last that could be critical of other hospitals. She conveyed the case of an MDRTB patient who had absconded four times from Santoord Hospital, but when she was hospitalised at the Klerksdorp Hospital in North West, managed to adhere to her treatment and to convert the first time around.

Later views – 2003

Two years the provincial TB co-ordinator said it was already clear that the province was able to hospitalise TB patients at the district level. While there were some district hospitals with insufficient bed capacity to do this, generally the impact of Santoord Hospital's closure was a lot less severe than anticipated. It was now also clear to the provincial TB control programme that both Allanridge Chest and Santoord Hospitals had previously hospitalised TB patients unnecessarily. Because TB patients were so poor, these hospitals were typically refuges for them to obtain food and shelter.

In respect of the district hospitals' role in TB control in October 2003, the provincial TB co-ordinator acknowledged that there was (still) the problem of overuse of X-rays, especially in

Lejweleputswa and Bloemfontein. There were signs, however, that the University of the Free State, 'at last', was now training physicians to use sputum testing rather than X-rays. A small minority of doctors still 'believed' in X-rays, and said that as lung health 'specialists' they would not be prescribed to by nurses or the TB control programme.

The provincial TB co-ordinator was pleased that the high interruption rate that occurred at Santoord Hospital, now with the new MDR-unit in Thaba Nchu, was something of the past. Of more than 150 out patients treated at the MDRTB-unit only three had absconded. Patients were clearly a lot more satisfied with the standard of care and the physical infrastructure at Dr. J.S. Moroka Hospital than they were at Santoord Hospital. There was a full-time physician, Dr. Zakura, to the avail of the MDR-unit and the out patient clinics held at the unit. This doctor visited the acclaimed MDR-unit in North West. He was fully 'up-to-date' with the new protocols, and had the interests of the Free State TB Control Programme at heart. The availability of this doctor was to the great benefit of the MDR-unit.

The Free State TB Control Programme was also doing its utmost to support the unit, e.g. at the time of the interview the programme was in the process of procuring tracksuits for MDRTB patients. The provincial TB co-ordinator was also pleased that the Free State Department of Health had now decided to equip the MDR-unit with ultraviolet lighting.¹³² The physical layout of the MDR-unit was such that very ill patients could be accommodated in private rooms. There was a special, safe location in the unit where sputum was obtained without endangering staff and other patients. On discharge, a staff member of the MDR-unit accompanied the patient to an appropriately located clinic to ensure good follow-up care. The length of stay for patients at the MDR-unit ranged from twelve to sixteen months, or until two negative sputum cultures had been obtained.

3.4 Views of TB officials at the national level

In October 2003, the Inpatient Care Team stated that the Free State was not the only province that no longer had SANTA and Lifecare hospitals. North West, Limpopo and the Northern Cape also

¹³² She was not in agreement with Dr. Oosthuyzen who felt that such lighting is unnecessary in the 'sunny' Free State (see Chapter 2, Paragraph 3.3). Mrs. Peters referred to conclusive evidence that ultraviolet lights annihilate all kinds of bacilli.

did not. This raises the question of whether there is a trend in South Africa to oust private and NGO providers from intramural TB care and to consign this role to public hospitals. In general, however, the Inpatient Care Team questioned¹³³ the ability/infrastructure of district hospitals to isolate TB patients. In the team's view TB patients cannot be accommodated between other patients, but this is what was happening at district hospitals. This placed especially HIV-positive patients at risk, because they were more likely to develop active TB once infected. If district hospitals had isolation facilities it would have been acceptable for them to accommodate TB patients, but mostly they did not. The team were in doubt whether district hospitals generally had the infrastructure to ensure that TB patients received the correct treatment and that the correct tests were performed when TB suspects were sputum-negative. The team also questioned whether doctors at district hospitals really would be trained in the new protocols. The team expressed the opinion that there was a serious lack of knowledge about TB among physicians. They were also very concerned about follow-up of TB patients once discharged from hospitals. Who would ensure that these patients would be covered by a clinic to continue their treatment? This was crucial because most of the patients would then still be sputum-positive: *"District hospitals will definitely not keep them until they are sputum-negative."*

The Inpatient Care Team was unreservedly sceptical about the role of district hospitals in TB control. They pointed to district hospitals in the Eastern Cape as a case in point. There was, for example, precious little communication between these hospitals and peripheral PHC clinics. The team also felt that it was probably less costly to the government to make use of SANTA and Lifecare hospitals for TB hospitalisation, than to provide this service itself. The team stated that district hospitals were less concerned about and accommodating of TB patients' socio-economic conditions than SANTA and Lifecare hospitals. This was, in effect, an enormous criticism of the very public health care system in whose employ they stood. The team stated that district hospitals were less willing to accommodate TB patients *'for a few days longer'*, and to make arrangements for them to obtain food if they have none at home: *"Want as hulle nie kos het om te eet nie, hou hulle op om die pille te drink."*¹³⁴ They emphasised that TB patients in hospitals often were the *'poor of the poor'*, and sometimes were homeless and without any family support whatsoever. In fact, the team viewed district hospitals as having an ethos of *'getting beds empty as quickly as possible'*. SANTA and Lifecare

¹³³ The interviewees went to pains to emphasise that their views were *'personal'* and that the researcher should not interpret these as the views of national Department of Health.

¹³⁴ Translation: *'Because if they do not have food to eat, they stop taking their tablets.'*

hospitals, thereupon, in the team's view, were inclined to more sympathetically consider the poor socio-economic circumstances of TB patients.

The Inpatient Care Team acknowledged that SANTA hospitals in the past might have inflated patient numbers through unnecessary hospitalisation. The reason the team suggested for this was that SANTA hospitals did not have fixed budgets. This created both the *'need and opportunity'* for financial misdemeanour. And, to some extent, this was understandable; because the SANTA hospitals had large overhead expenses whether their beds were empty or full. SANTA hospitals were forever in a struggle to ensure that they would be able to keep their doors open.

The team felt, however, that monitoring of SANTA hospitals by provinces had improved, although the contracts with these hospitals were still in disarray. While expressing appreciation for SANTA's community services, the team said that it was uncertain what exactly the role of the head office (SANTA National Secretariat) was. SANTA National laid claim to seven-and-a-half percent of the funds meant for the hospitals and no one knew exactly what happened with this money, *'a substantial amount'*. Only once SANTA National's role was openly questioned, did it *'suddenly'* start to effect improvements to SANTA hospitals. SANTA National claimed that it allocated two-and-a-half of the seven-and-a-half percent for hospital improvement, but before this was questioned it did *'nothing'* for the hospitals. Consequently *'even today'* some SANTA hospitals were in a poor condition. The team stated that, although this could never be proved, the SANTA CEO – Dr. Ratsela – left the association *'with a lot of money'*. Due to *'massive'* mismanagement by SANTA National, the Inpatient Care Team strongly advocated for SANTA hospitals to rather themselves directly contract with the provinces. However difficult the transformation in respect of agreements with SANTA hospitals, the team still felt that the country could ill afford to lose the SANTA infrastructure for hospitalisation of TB patients. While the team acknowledged that Santoord Hospital in the Free State had had a negative impact on SANTA's reputation it stated that some SANTA hospitals, for example those in Gauteng, Mpumalanga and the Western Cape, were *'excellent'* (as were certain Lifecare hospitals, like the one in Richmond, KwaZulu-Natal).

The Inpatient Care Team emphasised the need for provinces to monitor the quality of services provided by SANTA hospitals. Traditionally, these hospitals were largely given free reign. Effectively there was no control of what happened with government money in SANTA hospitals.

The Inpatient Care Team felt strongly that, in order for district hospitals to realise their role in TB control, they should clearly reserve beds for TB patients, and also should have isolation facilities to shield HIV and other patients from TB infection. The team repeatedly emphasised the need for district hospital doctors to be trained in respect of TB. It was especially crucial to convince these doctors to make less use of X-rays. Unnecessary X-ray use for TB diagnosis was costing South Africa a lot of money. Even so, the team accepted that X-ray diagnosis was necessary in the case of sputum-negative suspects. The team felt that it was necessary that communication between provincial and district TB co-ordinators and SANTA hospitals be drastically improved. It was also necessary for all hospitals to keep a TB register. Also an effective mechanism (like a step-down facility or '*bridging clinic*') was needed to ensure follow-up of TB patients when discharged from hospital. If all this could happen the team felt that both SANTA and Lifecare TB hospitals had a future. This, the team said, was why it was so important to clarify and resolve the contractual issues.

As regards MDR-units the Inpatient Care Team applauded the institution of a separate, isolated facility at Dr. J.S. Moroka Hospital in the Free State. This was again likened to the similarly isolated unit in North West. It was also an improvement over the situation in the Western Cape where MDRTB patients go to Brooklyn Chest Hospital and to King George V Hospital, but are not isolated from other TB patients.

In July 2003 the Inpatient Care Team visited four hospitals in the Eastern Cape¹³⁵ of which three were district hospitals and the other a special TB hospital (Inpatient Care Team, 2003). The Team identified the following encouraging aspects: all hospitals had on-site sputum microscopy services, designated TB wards, and arrangements for referring MDRTB patients elsewhere. In addition three of the four hospitals had 24-hour sputum test turn-around times, adequate staffing levels, copies of the NTCP guidelines and training manuals, and diagnosed PTB primarily through sputum microscopy. Worrying aspects in all four hospitals included: no patient education pamphlets or TB information, no clinical audit policies for TB, inadequate discharge arrangements and no follow-up processes, incomplete registers, no MDRTB management policies, and remote sputum culture facilities. Furthermore, three of the four hospitals had no admission or discharge policies, no TB-related training for nursing or medical staff '*in living memory*', and no notification forms for health care

workers. Two of the four hospitals had a high proportion of re-treatment patients at around 50%, had experienced TB drug stock-outs in the past year, and had no VCCT policies or guidelines. It was consequently recommended that all provinces need to make sure that their hospitals that provide TB inpatient care are equipped to and capable of playing their full part in the TB control programme. For the Inpatient Care Team (2003) this meant that hospitals should: *'treat TB patients in conditions that minimise the risk of cross infection'*, *'have easy access to appropriate diagnostic and treatment facilities'*, *'have the latest policies and procedures'*, and *'have staff trained and competently using those policies and procedures'*.

4. Summary

Because health workers have the tremendous responsibility attached to working with people's lives, TB is a great concern (and stressor) to them. Chapter 5 reconstructs health workers and managers' views and experiences of the health care system in relation to hospitalisation for TB. To this end empirical data generated through the researcher's participation in the Joint Free State TB Research Project is presented. This data spans the period 2001-2003. The information spans the views and experiences of health workers and managers at the facility, district, provincial and national levels. The research design is descriptive and exploratory.

Self-administered questionnaires were filled out by a total of 144 participants in the research feedback workshops of the Joint Free State TB Research Project in 2002. This survey revealed not only a vast array of facility level problems relating to hospitalisation for TB, but also uncertainty about the future. Not only was this a time of uncertainty for the staff of Santoord Hospital, but also for TB control practitioners throughout the province. Moreover, there were clear indications of rivalry between PHC nurses (favouring NTCP guidelines) and hospital-based physicians (much less inclined to follow national policies and procedures). In fact, this problem also reverberated during the interviews with TB co-ordinators at the district, provincial and national levels, as did concerns about the capacity of district hospitals to accommodate growing numbers of TB patients.

Even as recently as October-November 2003, health managers at the district, provincial and national levels were concerned about hospital doctors' understanding of, commitment to and application of the guidelines of the NTCP. At all levels health managers were still stressing the importance of re-

¹³⁵ To date the Inpatient Care Team has not yet conducted an evaluation visit to the Free State.

orientating doctors towards adhering to by now otherwise universally accepted TB control principles, for example, of sputum testing to diagnose TB rather than the constant overuse and even misuse of costly X-ray diagnosis. With a few appreciated exceptions doctors have remained deaf to pleas of the health managers in their facilities and districts. Their re-orientation and re-training by national level health managers were met with variably poor results. The data from the current study suggests that health managers experience the sometimes self-righteous attitudes of hospital doctors to be detrimental to TB control as a whole. One cannot help but wonder how well hospitalisation for TB in the Free State might have been going if PHC nurses and hospital doctors really worked together as a team.

On the positive side, Chapter 5 reveals strong indications that public district hospitals in the Free State are able to take up the extra workload brought about by the closure of Allanridge Chest and Santoord Hospitals. While the views of health workers and managers are certainly not unanimous in this respect, and while district hospitals' intramural care for TB is not running uniformly smoothly, there seems to be growing confidence in the public sector's ability to itself hospitalise TB patients when needed. Certainly the one development all health managers agree is in the best interest of TB control in the Free State is the new MDR-unit in Thaba Nchu.

However, hospitalisation for TB remains an intricate and dynamic affair, and health workers and managers' views and experiences will change as time goes on. Social and health systems researchers interested in the phenomenon of hospitalisation for TB can hardly afford to negate the suggestions of frontline TB control practitioners and their managers. Equally important are the views and experiences of hospitalised TB patients themselves – Chapter 6 presents empirical data to generate understanding of *'what's in the deal?' for the patient.*

Chapter 6 Hospitalisation for TB: the views and experiences of patients

“In South Africa there is a first class but limited modern health care sector for those with medical coverage or the money to pay for the treatment. Government-subsidized public hospitals and clinics are overstressed, understaffed, and are struggling to deal with the needs of a majority of the population that was under-serviced during white minority rule” (Ember & Ember, 2001: 2060).

“I feel very old in my body” (Anonymous TB patient, Elizabeth Ross Hospital, Phuthaditjhaba, 2001).

1. Introduction

The need to consider the patient’s perspective in disease management is often stressed in the literature: *“Disease management ads value only if patients’ specific problems and their individual experience living with a chronic condition are taken into consideration. The challenge for provider organizations is to find a practical way to implement standard guidelines with the flexibility to tailor care plans for the needs of individual patients. Measuring and analyzing patient centred outcomes can help meet the challenge”* (Roughan & White, 2001: 2). According to the authors two essential assumptions form the foundation of patient-centred outcomes. Firstly, health is more than just the absence of disease. It is the ability of individuals to function physically, emotionally, socially and spiritually within the context of daily living and based on their own capacities and personal expectations. Secondly, individual patients must be the ultimate judges of their own health. Thus, to determine health outcomes we have to ask patients about their views and experiences of health services and, in the context of the current study, how hospitalisation for TB has impacted on their functional health status.

Over the period October 2001-March 2002 the Joint Free State TB Research Project conducted fieldwork in three study areas in the province: Welkom/Thabong, Phuthaditjhaba and Thaba Nchu. A total of 90 TB hospital patients were interviewed to solicit their views and experiences of hospitalisation for TB. Chapter 6 presents the TB hospital patient’s perspective. This chapter commences with a description of these patients’ background, and their and their families’ socio-economic status as affected by TB and hospitalisation for the malady. A portrayal of their health beliefs, knowledge of TB, first symptoms of the disease, and health seeking behaviour follows. Thereafter, the chapter deliberates their admission to and health education at hospitals. Social and health worker support and stigmatisation of TB hospital patients are subsequently assessed. Next, TB hospital patients’ views of the necessity of their hospitalisation, and the quality of hospitals’ infrastructure and care, are elucidated. Thereupon, the chapter discusses aspects of long-term

hospitalisation such as the distant location of Santoord Hospital from their homes and support systems. TB hospital patients' adherence to their treatment and their absconding from hospital care next comes under the loop. The chapter also takes cognisance of TB hospital patients' negative and positive experiences and, finally, considers their prospects for the future.

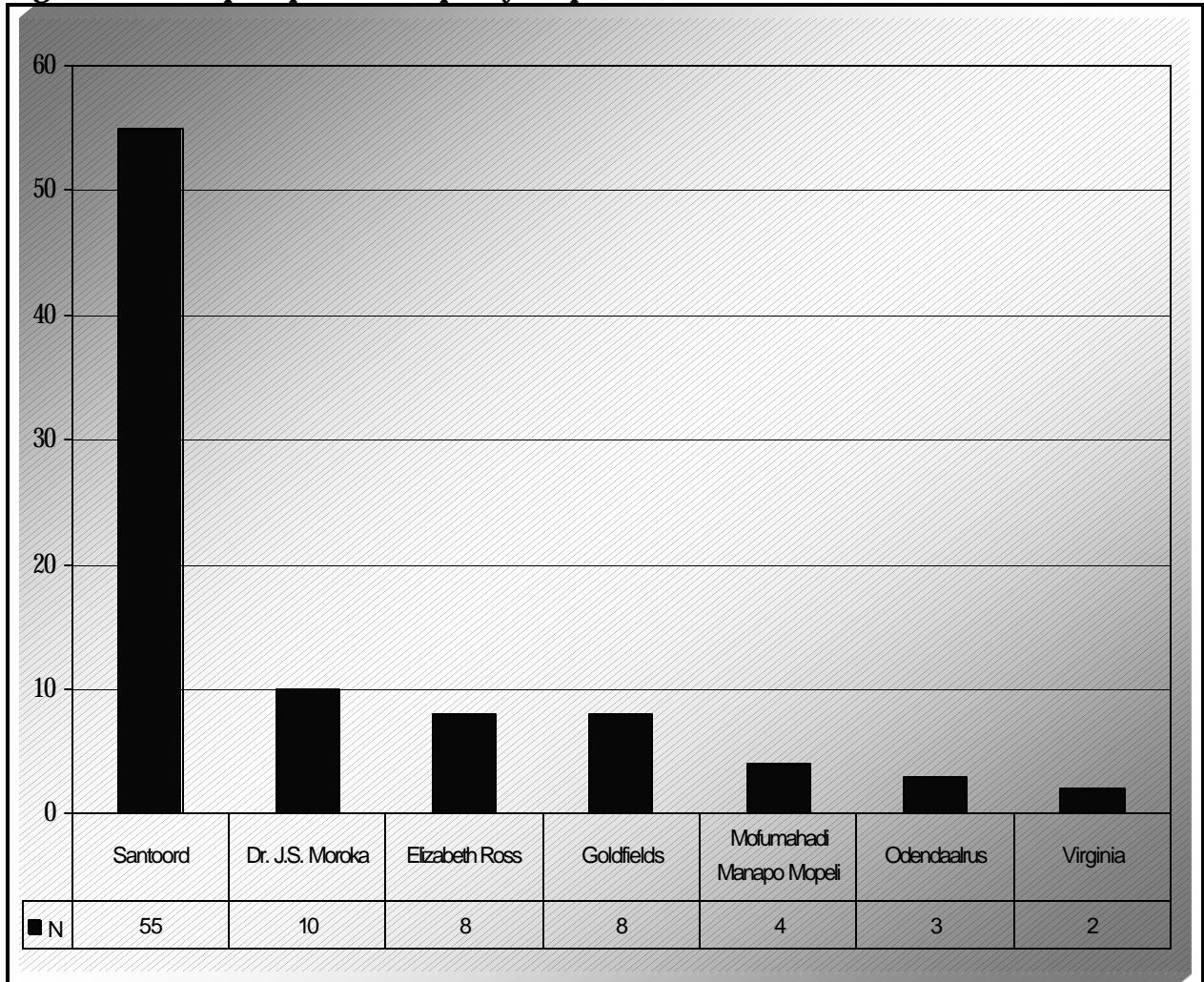
2. Survey design

Sampling

A hindrance experienced in sampling patients for the study in the case of public hospitals in the Free State, was that these hospitals were not reporting institutions in respect of TB. This meant that none of the selected public hospitals (Dr. J.S. Moroka Hospital, Mofumahadi Manapo Mopeli Hospital, Elizabeth Ross Hospital, Odendaalsrus Hospital, Virginia Hospital and Goldfields Hospital) could provide the researcher with any kind of meaningful sampling framework to select respondents from. Discussions with the managers of the male and female wards in each of the hospitals showed that between six and ten confirmed adult (15 years and older) PTB cases were hospitalised at the time of the fieldwork. Subsequently it was decided to randomly select 50% of all such cases hospitalised at the time of the fieldwork. This realised a sample size of 35 public TB hospital patients.

Figure 3 shows that 55 patients were sampled at Santoord Hospital. The reasons for this relatively larger representation in the sample (compared to the sample representation of the public hospitals) is as follows:

- The study was geared towards a particular focus on the '*long-term*' patient, and Santoord Hospital was the only facility in the Free State offering this type of service. As it turned out, the patients included in the sample from this hospital had by the time of the survey on average been hospitalised for 125 days.
- Such a strategy would allow for comparisons of the patient experience in public hospitals and a private (NGO and reportedly not-for-profit) hospital.
- Considering the imminent closure of Santoord Hospital and the fact that MDRTB patients would soon be admitted to Dr. J.S. Moroka Hospital (where a new MDR-unit was being built at the time of the fieldwork) it was felt that a representative sample of MDRTB cases at Santoord Hospital could in future be compared to a similar sample from Dr. J.S. Moroka Hospital.

Figure 3 TB hospital patient sample by hospital (n), 2001/2002

Data gathering

Face-to-face interviewing¹³⁶ in the home language of respondent was the chosen method of data gathering. A team of three fieldworkers conducted the fieldwork. They were well trained¹³⁷,

¹³⁶ In the United States of America, Williams *et al.* (1971: 546) found that TB hospital patients responded more candidly in personal interviews than on written questionnaires 'if for no other reason than it was easier for them to articulate verbally'.

¹³⁷ The training was conducted by Mr. Matebesi and started off with a thorough discussion of the purpose of the survey. Interviewers were trained to introduce the survey to interviewees and to obtain their permission to conduct the interview in a standardised way. During the training the meaning of each question item, and especially all technical terms, were discussed. The ethics of interviewing as part of a scientific team, probing techniques, as well as simulated interviews with TB hospital patients not part of the sample (in Bloemfontein) formed part of the training. Interviewers were also instructed to terminate the interview should respondents indicate that they feel ill or unfit to continue.

monitored¹³⁸ and remunerated. Being of a descriptive and explorative research design, this study used a newly developed data-gathering instrument. It is thus a limitation of this research that the instrument had not benefited from repeated application/testing aimed to achieve measurement (face, content, criterion, concurrent, predictive, construct, convergent, and 'discriminant') validity (Neuman, 2000: 168-170). The interview schedule¹³⁹ contained both open- and closed-ended questions. The rationale for the use of open-ended questions was that respondents, in their answering of questions about their problems and concerns, would make use of what directly came to their minds, i.e. in the terminology of Tversky & Kahneman (1982): 'what is available to them'. Baker's (1994: 189) guidelines were followed in preparing the interview schedule: clear instructions for interviewers to follow, and questions worded in a way that would quickly engage the respondent and maintain his/her interest throughout.

In as far as its structured question items is concerned, the hospital patient interview schedule in large measure applied the 'Lickert Scale' method of data gathering. Lickert scales were developed by Rensis Likert in the 1930s to provide an ordinal level measurement of people's attitudes (Neuman, 2000: 182). Usually the response categories 'strongly agree', 'agree', 'don't know'/'uncertain', 'disagree' and 'strongly disagree', are attached to a set of statements. Scores of one through five are attached to the responses assuming that these responses have equal numerical value (Baker, 1994: 416).

Data capturing and analysis

The hospital patient survey data were captured and analysed through the use of the computer programme *SPSS 11.0*. To analyse the open-ended questions all possible answers were listed before mutually exclusive categories were specified. The encoded data were then entered in the computer programme¹⁴⁰. A limitation of the research was that missing data occurred in a small proportion of the cases.

¹³⁸ Editing of completed interview schedules took place directly after each of the first three interviews by each fieldworker and, thereafter, on a daily basis in an interactive situation together with the fieldworkers. This made it possible to identify and alert fieldworkers to misinterpreted questions and missing data right from the onset.

¹³⁹ Mr. Z. Matebesi translated the questionnaire to Sesotho.

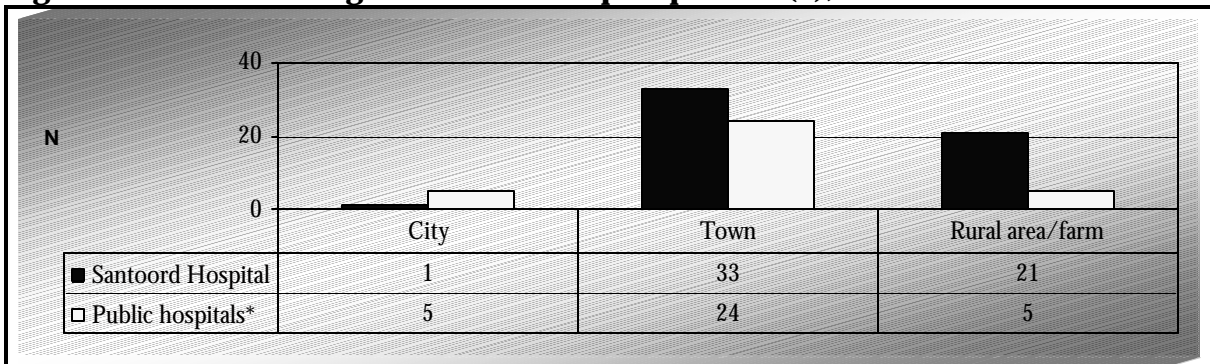
¹⁴⁰ Mrs. M. van Rensburg conducted the data capturing.

3. TB hospital patients' background

Rural/urban background

In mid-2002 the majority (55%) of South Africans were urbanised. This was a situation radically different from that in 1921 when only 28% of the population were urbanised (Henderson, 2003: 1). Schoeman (1990) found that the majority of TB meningitis patients hospitalised at Pelonomi Hospital in Bloemfontein came from small villages and farms in the central and southern parts of the Free State. This author stated that mortality and morbidity related to TB meningitis was largely preventable, but that these areas lacked adequate primary care facilities. Figure 4 shows that both Santoord Hospital (n=33/60%) and public hospital (n=24/71%) patients originated mainly from towns rather than cities. Santoord Hospital patients (n=21/38%) were also more likely to originate from farms (n=21/38%) than from cities (n=1/2%). Of the combined TB hospital patient sample (n=89 [missing data=1]), nine in ten respondents (n=83/93%) originated from towns and rural areas/farms. If accepted that increased hospitalisation of TB patients indicated deficiency in ambulatory care, the current research reaffirmed concern about the quality of (PHC) TB control in the more rural areas of the Free State.

Figure 4 Urban/rural origination of TB hospital patients (n), 2001/2002

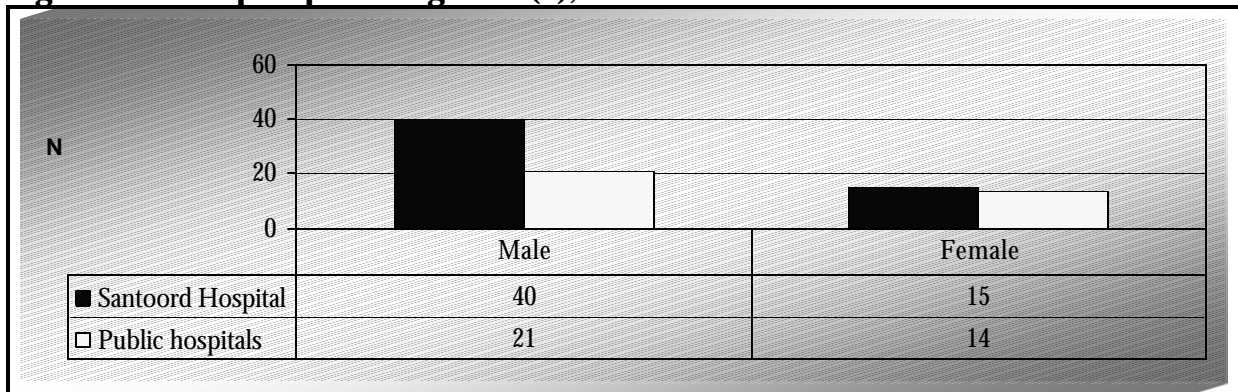


* Missing data – public hospitals (n=1).

Gender, age and marital status¹⁴¹

In recent years great strides have been made in policies to improve women's health (including the passage of the Choice on Termination of Pregnancy Act 92 of 1996 and the appointment of a National Committee for Confidential Enquiry into Maternal Deaths), but women's health has yet to improve (Adar & Stevens, 2000: 411). In mid-2002 women made up 52% of the South African population – there were 1.7 million more women than men (Henderson, 2003: 1). However, most TB patients at both Santoord Hospital (n=40/73%) and public hospitals (n=21/60%) in the study areas were male (Figure 5). Skewed male representation in TB hospital patient numbers have also been reported in the United States of America, i.e. Singleton *et al.* (1997: 838) accounted that amongst a sample of 166 individuals treated and discharged from a TB treatment unit in a Massachusetts hospital, 80% were male.

Figure 5 TB hospital patients' gender (n), 2001/2002



Reporting estimates for 2002, Statistics South Africa (cited in Henderson 2003: 8) indicated that the age group 15-39 years constituted 43.7% of the South African population. The mean age of both Santoord Hospital and public TB hospital patients was 37 years (Table 35). The youngest patient was recorded at Santoord Hospital at fifteen years, and the oldest in a public hospital at 63 years.

¹⁴¹ Race is not included as a comparable variable in this analysis. Except for three coloured males all sampled TB hospital patients were black (97%). The three coloured patients were all sampled at Santoord Hospital. They were respectively 36, 43 and 46 years old. Two of these respondents hailed from Opkoms, Mangaung, and the other from Morolong, Thaba Nchu. One had previously been in prison for twelve years. Asked how they saw their future and what their plans for the future were, one of these patients was optimistic: "I will still be able to do my job, which is not heavy, so that I can make a living." However, the other two were despondent: "I do not have any future."

Table 35 TB hospital patients' age (mean and range), 2001/2002

DENOMINATOR		SANTOORD HOSPITAL (N=55)	PUBLIC HOSPITALS (N=35)
		Age in years	
\bar{x}		37.2	36.9
Range	Youngest	15	20
	Oldest	59	63

Pre-Christian era marriage in black communities in South Africa was based on polygamy (having more than one wife) and bridewealth (*lobolo*) that involved the transfer of wealth in the form of livestock to the family of the bride in return for her productive and reproductive services in the husband's homestead (Fuze, 1979: 34, 36, 96-97). Although this practice is still legal, monogamy is now the norm. Actually, with rates of above 50%, the new trend is towards divorce and cohabitation without marriage (the most common domestic living arrangement in black and coloured communities) (Ember & Ember, 2001: 2056). As may be gleaned from Figure 6, the tendency to go unmarried (n=63/70%) was also the case amongst the combined sample of TB hospital patients.

Figure 6 TB hospital patients' marital status (n), 2001/2002

Education and literacy

The South African Schools Act, 1996 came into effect in January 1997. The Act provided for compulsory education for 'learners'¹⁴² between seven and fifteen years old. In 1998 the Free State had 810 000 learners and 24 078 teachers (Turner, 2002: 1449, 1456). In 2003, 18% of South Africans had no schooling. In main, the qualification level of TB hospital patients was found to be comparable to that of South Africans generally. At Santoord Hospital 35 (64%) patients had a qualification of Grade 8 or lower (Table 36). Five patients (14%) had undergone no schooling at all.

¹⁴² 'Learner' in current South African parlance was 'pupil' in the old.

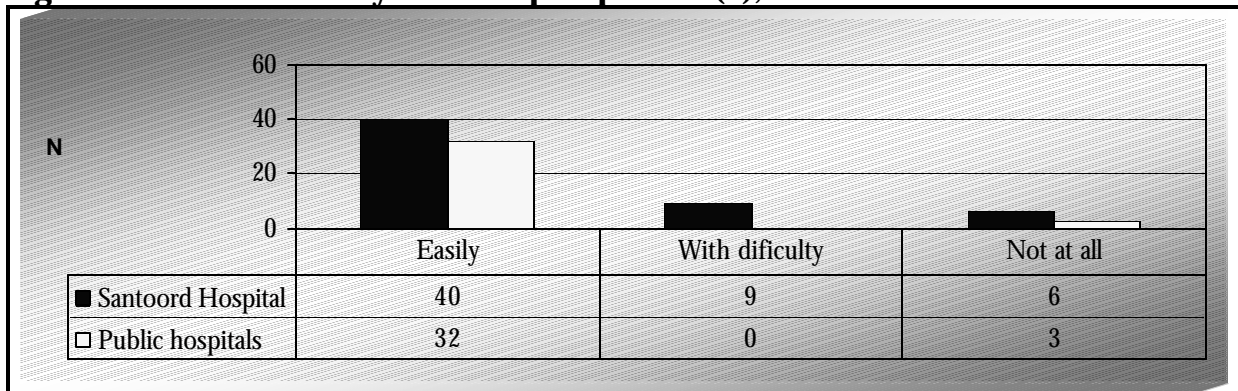
Only 20 (36%) of the Santoord Hospital patients had achieved Grade 9. These patients had thus undergone at least seven years of school education. A similar pattern was observed in the public hospital sample, except that this group included one patient with a post-school qualification.

Table 36 TB hospital patients' educational qualification (n), 2001/2002

QUALIFICATION	SANTOORD HOSPITAL	PUBLIC HOSPITALS
No schooling	5	3
Grade 1-5	10	2
Grade 6-8	20	12
Grade 9-10	10	10
Grade 11-12	10	7
Diploma or other post-school	0	1
Total	55	35

According to Turner (2002: 1449) in 1999 the adult literacy rate in South Africa was 85% (86% for males and 84% for females¹⁴³). Likewise, as judged by their ability to read a letter or a newspaper in their home language, only one in five TB hospital patients (n=18/20%) in the combined sample were functionally illiterate (Figure 7). This suggested that printed (TB) health education material would be useful in increasing their awareness and knowledge of TB.¹⁴⁴

Figure 7 Functional literacy of TB hospital patients (n), 2001/2002



¹⁴³ The female literacy rate in South Africa was the highest in Africa (Turner, 2002: 1449).

¹⁴⁴ Health promotion services in South Africa have been described as poor and as lacking in both funding and staff (Coulson, 1999: 299-300). The availability of printed TB health education material was not investigated in the current study and is a suggested theme for future research in the hospital context. During 2003 the CHSR&D investigated the availability of information, education and communication (IEC) pamphlets in PHC facilities in eight Urban Renewal Nodes around South Africa. In seven of the Urban Renewal Nodes the majority of PHC facilities had such material available relating to TB specifically. In Mitchells Plain TB-specific IEC material was universally available to the benefit of patients in PHC facilities. In Mdantsane in the Eastern Cape, only three out of eleven PHC facilities had TB-specific IEC material available.

Household size and dwelling type

Amongst a sample of 166 individuals treated and discharged from a TB treatment unit in a Massachusetts hospital, 35% were homeless (Singleton *et al.*, 1997: 838). Marks *et al.* (2000: 435) found that HIV-infected homeless TB patients were hospitalised more frequently and longer than other patients in the United States of America. Surprisingly, in the current study neither at Santoord Hospital nor at public hospitals were any of the sampled patients reportedly homeless (Table 37). In fact, in both samples most TB hospital patients lived in the type of dwelling that may be defined as formal.¹⁴⁵ This probably reflected the prominent tendency in South Africa to provide more people with formal¹⁴⁵ housing. Even so, thirteen Santoord Hospital patients and seven public TB hospital patients reported that they resided in informal¹⁴⁶ housing.

Table 37 TB hospital patients' dwelling type (n), 2001/2002

DWELLING TYPE	SANTOORD HOSPITAL	PUBLIC HOSPITALS
House or brick structure on a separate stand or yard	38	23
Traditional house/hut/structure made of traditional material	3	1
House/room in backyard	1	4
Informal house/shack in backyard	4	6
Informal house/shack in informal/squatter settlement	9	1
Homeless	-	-
Total	55	35

The current study establishes that, on average, Santoord Hospital patients shared their homes with 3.6 other people (Table 38). Similarly public TB hospital patients lived together with 3.2 other persons. In both samples TB hospital patients sometimes shared their households with as many as ten other residents.

¹⁴⁵ See Photograph 20 – each small, low cost house is erected on its own stand according to a standardised building plan with low-cost building material. These houses are appearing in similar (even monotonous) pattern in most township areas in South Africa. These abodes are (not always fondly) referred to as 'RDP' houses after the Reconstruction and Development Programme of the ANC government. The RDP heavily subsidises the attempts of poor people to acquire a home of their own. Between March 1994 and March 2002, the South African Department of Housing built, or was in the process of building, 1.3 million RDP houses (Ericsson, 2003: 365).

¹⁴⁶ The concept 'Makhukhu', while not listed in any of Morija (1996), Ziervogel & Mokgokong (1985) or Jennings *et al.* (1995), refers to a ('informal') house constructed of wooden poles, corrugated iron and steel wire. See Photograph 21.

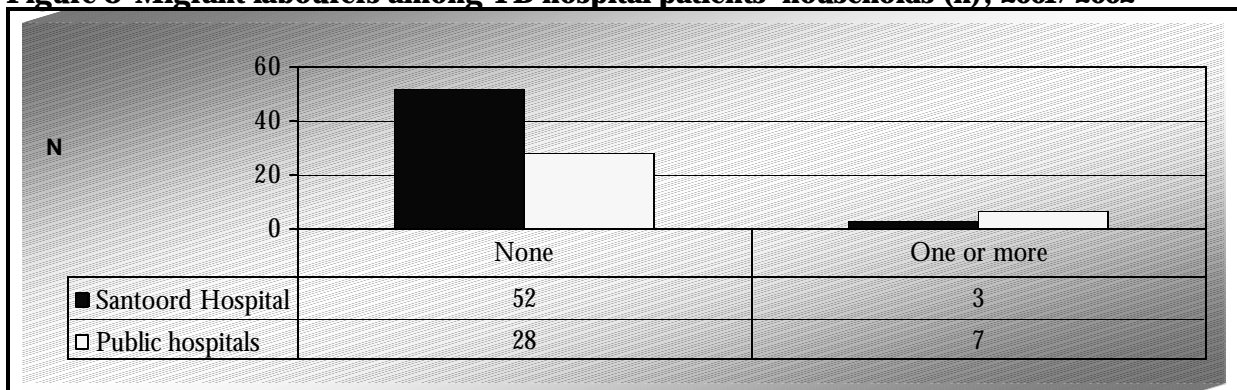
Table 38 TB hospital patients' household size (mean and range), 2001/2002

DENOMINATOR		SANTOORD HOSPITAL (N=55)	PUBLIC HOSPITALS (N=35)
		Number of persons per household (including respondent)	
\bar{x}		4.6	4.2
Range	Lowest	1	1
	Highest	10	11

The mean number of rooms¹⁴⁷ per house of Santoord Hospital patients was 3.2 and that of public TB hospital patients 3.5. Among the Santoord Hospital patients there were three who said their houses had no windows, and among the public TB hospital patients, four. Ostensibly these patients lived in typical shack structures constructed of corrugated iron sheets (in which it is difficult and costly to insert windows). One can only try to imagine the hardship (and risk of TB infection) in a 'Mokhukhu'¹⁴⁸ during cold Free State winters when, no doubt, the doors are also closed. In summer, again, these corrugated iron houses become scalding-hot.

Migrant labourers among household members

In Paragraph 4.1 significant migration activity that occurred in the study sites of the Joint Free State TB Research Project is noted. Albeit in smaller proportion among Santoord Hospital patients' households, among the households of the combined sample significant numbers of migrant labourers were present (Figure 8). Typically, these migrants worked in the mines of the Goldfields or the Witwatersrand.

Figure 8 Migrant labourers among TB hospital patients' households (n), 2001/2002

¹⁴⁷ 'Rooms' here exclude bathrooms/toilets.

¹⁴⁸ See Photograph 21.

Experience at mines and in prison

Mining is the largest industry in South Africa. Profits from diamonds, gold, platinum, coal and rare metals account for the majority of our country's foreign exchange earnings (Ember & Ember, 2001: 2052). At Santoord Hospital sixteen (29%) of the sampled patients had worked at a mine at some stage of their lives, and among public TB hospital patients, eleven (31%). Santoord Hospital patients on average worked at a mine for 5.4 years, and public TB hospital patients, 3.1 years.

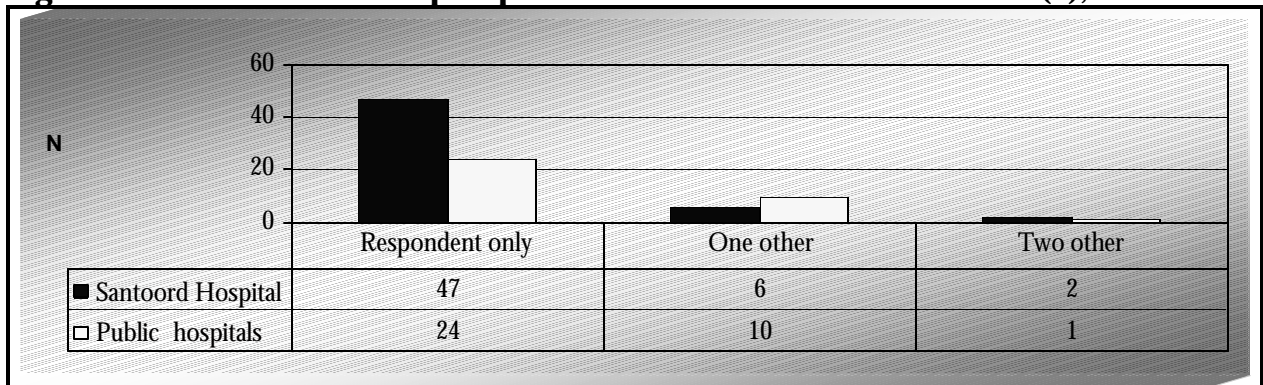
The World Health Organisation drew attention to the importance of TB control in prisons (Bone et al., 2000): *“Ill-health thrives in settings of poverty, conflict, discrimination and disinterest. Prison is an environment that concentrates precisely these issues. TB is a major cause of sickness and death in prisons, along with HIV, malnutrition, mental illness and violence ... Prisoners very often originate from the most vulnerable sectors of society – the poor, the mentally ill, those dependant on alcohol or drugs¹⁴⁹. These groups already have an increased risk of diseases such as TB. In prison, these problems are amplified by poor living conditions and overcrowding ... Prison health is often forgotten or given a low priority. Prisoners are stigmatised, hidden and rendered voiceless.”¹⁵⁰* One-third (n=18/33%) of the Santoord Hospital patients had been in prison, on average for 24.7 months. Likewise, close to a one-third (n=10/29%) of the public TB hospital patients had been in prison, on average for 16.3 months. During the research feedback workshops of the Free State TB Research Project this was the finding from the current research that most startled Free State health workers. A hospital nurse remarked: *“Now everyone can see what type of patients we are dealing with.”*

Incidence of TB among patients' households

In the case of both Santoord Hospital (n=8/14%) and public hospitals (n=11/31%) some TB patients reported that they shared their homes with other people whom have/had TB (Figure 9). Three TB hospital patients in the combined sample stated that more than one other member of their household have/had TB. This may have been a consequence of the housing conditions depicted in Tables 37 and 38.

¹⁴⁹ In his book *Cold Stone Jug* Herman Charles Bosman (1996: 27) remarks: *“During the time I was in the Great Prison, dagga smoking was not so much a habit among old offenders as it was by way of being a venerable institution.”* ‘Dagga’ is the South African appellation for marijuana. Marijuana or cannabis is a drug prepared from the Indian hemp plant, *Cannabis sativa* (Martin, 1998: 97).

¹⁵⁰ In 2002, in Russia 10% of approximately 1 million prisoners had active TB. In fact, one-third of these prisoners had MDRTB. The death rate among TB sufferers in Russian prisons was 30 times higher than among the general

Figure 9 Individuals in TB hospital patients' households who have/had TB (n), 2001/2002

4. Employment and income of TB hospital patients and their households

South Africa is doing its utmost to shake off the shackles of poverty. But with reference to real disposable income per household, South Africans were similarly off at R9 263 per year in 2002 and in 1992 at R8 739. Admittedly, over this period the real annual economic growth rate increased from -2% to 3%. Mortgage bond rates fell from 19.8% to 15.6% over the same period (Dimant, 2003: 35-40). Seemingly, the ANC government fares better in financially managing the country than its National Party predecessor.

Employment and income before falling ill with TB

In 2002 Statistics South Africa found that the country's unemployment rate was 29.4% according to the 'strict' definition and 40.9% according to the 'expanded' definition. For the Free State these rates were respectively 33.5% and 40.9% (Dimant, 2003a: 139). Reportedly, only ten (18%) Santoord Hospital patients were (already) unemployed before they fell ill with TB (Table 39). In fact, 35 (64%) Santoord Hospital patients claimed that they were then employed in the formal sector.

On the other hand, the reported employment status of public TB hospital patients fitted the general pattern in the Free State and South Africa more closely – 43% of these patients reported being unemployed even before they contracted TB. Was there perhaps a tendency among Santoord Hospital patients to over-dramatise their good fortune before they fell ill with TB and ended up incarcerated in Thaba Nchu? Mr. Matebesi, the fieldwork manager, suggested that this was the case

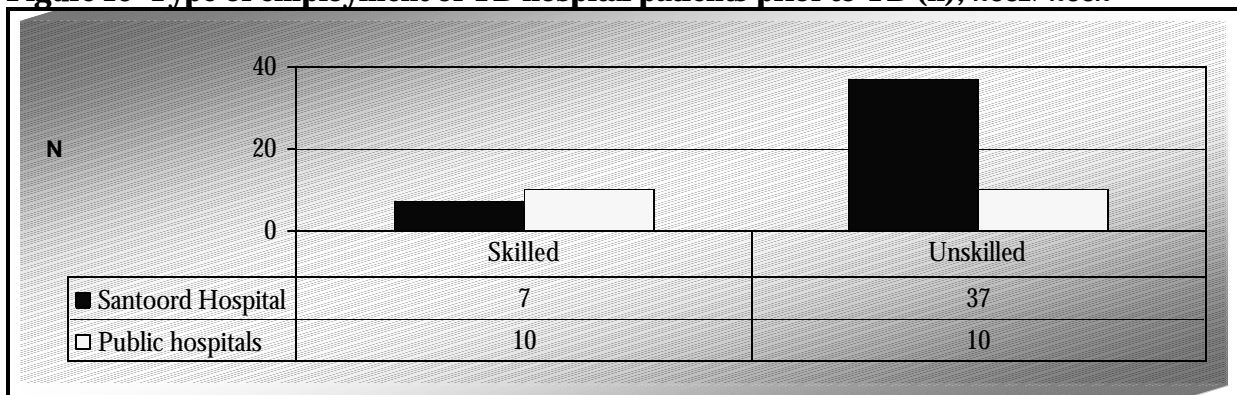
population (Reichman & Hopkins Tanne, 2002: 90). In Siberia incarcerated populations accounted for almost one-third of all prevalent TB cases during 1997 and 1998 (Kimerling, 2000: S161).

and that it also explained the novelty of the finding that Santoord Hospital patients reportedly more often were unskilled labourers (Figure 10), yet more often employed in the (formal) sector (Table 39). It might then also have explained the higher mean monthly income reported by Santoord Hospital patients at R598 before their falling ill with TB, compared to the R478 of public TB hospital patients (Table 40).

Table 39 TB hospital patients' employment status prior to TB (n), 2001/2002

EMPLOYMENT STATUS		SANTOORD HOSPITAL	PUBLIC HOSPITALS
Employed	Formal sector	35	14
	Informal sector	9	6
	Self-employed	1	
Unemployed		10	15
Total		55	35

Figure 10 Type of employment of TB hospital patients prior to TB (n), 2001/2002*



* Data confined to patients nineteen years and older.

Table 40 TB hospital patients' monthly income prior to TB (mean and range) , 2001/2002

DENOMINATOR		SANTOORD HOSPITAL (N=55)	PUBLIC HOSPITALS (N=35)
		Income in Rand	
\bar{x}		598*	478**
Range	Lowest	150	0
	Highest	1 800	3 600

* Mean for all cases (employed cases [n=45] - R731).

** Mean for all cases (employed cases [n=20] - R837).

Loss of income after falling ill with TB

Mean monthly household income in South Africa in 2001 was R3 522. The Gini co-efficient¹⁵¹ for South Africa in 2001 was 0.64 and that for the Free State 0.63 (Dimant, 2003a: 173). This implied that in the Free State, as in the rest of South Africa, white households were earning much more than black households. In fact, approximately 1.5 million blacks in the Free State lived in poverty¹⁵², compared to less than 20 000 whites (Dimant, 2003a: 182). Rajeswari *et al.* (1999) found in India that the average period of loss of wages due to TB was three months. In addition, the care-giving activities of females decreased significantly, and one-fifth of schoolchildren discontinued their studies.

In the Free State, Meyer *et al.* (2003) found that the costs of TB to patients include loss of income, as well as out-of-pocket expenses and time associated with having contracted TB and undergoing TB treatment. These costs increase when patients default, require hospitalisation and develop MDRTB. In the current study Santoord Hospital patients characteristically (n=33/60%) reported loss of monthly income due to their falling ill with TB.

Employment and income while in hospital for TB

Forty-nine of the 55 (89%) Santoord Hospital patients said they were unemployed at the time of being hospitalised, compared to 28 (80%) in 35 public TB hospital patients (Table 41). Of course the latter group reported higher unemployment even before falling ill with TB (Table 39).

Table 41 TB hospital patients' employment status while hospitalised (n), 2001/2002

EMPLOYMENT STATUS		SANTOORD HOSPITAL	PUBLIC HOSPITALS
Employed	Full-time – formal sector	5	6
	Part-time – formal sector	-	1
	Informal sector	1	-
	Self-employed	-	-
Unemployed		49	28
Total		55	35

¹⁵¹ The 'Gini co-efficient' measures equality and inequality between groups of people. It assigns a value between zero (perfect equality) and one (perfect inequality) (Dimant, 2003a: 173).

¹⁵² 'Poverty' is here defined as the number of people living in households on income less than the poverty income. The larger the household, the larger the income needed to keep its members out of poverty. Poverty income levels range from R551 for one individual per household to R2 349 for households with eight or more members (Dimant, 2003a: 182).

In both samples only minorities of patients received salaries from employment activities. Those six amongst Santoord Hospital patients who did receive a monthly salary while they were hospitalised, on average, earned R946 per month. However, taking into account the 49 patients in the sample who did not earn salaries, the mean for Santoord Hospital patients was R103 per month. The average monthly income of salary-earning public TB hospital patients was substantially higher at R1 334. This also translated to a higher mean monthly income from salaries of R267 for the total public hospital patient sample. In both samples social welfare grants and pensions followed as the next largest source of income. Again, however, only minorities of patients received these state benefits.

Table 42 TB hospital patients' income while hospitalised by source (n and mean), 2001/2002

SOURCE	SANTOORD HOSPITAL				PUBLIC HOSPITALS			
	Patients receiving income from source		All patients in sample		Patients receiving income from source		All patients in sample	
	N	\bar{x} in Rand	N	\bar{x} in Rand	N	\bar{x} in Rand	N	\bar{x} in Rand
Salary	6	946	55	103	7	1 334	35	267
Grants	2	535	55	19	4	385	35	44
Pension	1	570	55	10	2	570	35	33
Remittances	7	123	55	16	8	184	35	42
'Other'	0	0	55	0	2	250	35	7

Reported average total monthly income while hospitalised for Santoord Hospital patients at R149 was less than half that of public TB hospital patients (Table 43). TB hospital patients in 2001 lived in abject poverty.

Table 43 TB hospital patients' total income while hospitalised (mean and range), 2001/2002

DENOMINATOR		SANTOORD HOSPITAL (N=55)	PUBLIC HOSPITALS (N=35)
\bar{x}		149	392
Range	Lowest	0	0
	Highest	2 500	3 600

Dependants

In South Africa the African extended family system provides a range of adult caregivers within the kinship network. While African families have shown resilience as a socialising agency, repression and poverty have damaged family structure among the poor (Ember & Ember, 2001: 2058). About one-quarter (n=14/25%) of the Santoord Hospital patients stated that they were the 'breadwinners' in their

households, compared to almost one-third (n=11/31%) of public TB hospital patients (Table 44). Santoord Hospital patients reported having 1.3 dependants on average, compared to 0.7 dependants for public TB hospital patients. As a consequence per capita monthly household income for Santoord Hospital patients at R188 was far less than the R271 reported by public hospital patients.

Table 44 TB hospital patients' income while hospitalised (mean and range), 2001/2002

DENOMINATOR		SANTOORD HOSPITAL (N=55)*	PUBLIC HOSPITALS (N=35)**
		Mean monthly income in Rand	
Per capita	\bar{x}	188	271
Household total	\bar{x}	856	1 123
	Range	Lowest	50
		Highest	3 390

* 251 household members.

** 146 household members.

Future employment and income prospects

Despite their then dismal employment and income situation, more than half (n=30/55%) of Santoord Hospital patients thought they had positive employment/income generation prospects for the future, compared to more than one-third (n=12/40%) public TB hospital patients (Table 45). However, it should be borne in mind that the public TB hospital patients were not long-term patients. Were they just at a very low point in their illness careers or were they more in touch with reality?

Table 45 TB hospital patients' prospects for future employment (n), 2001/2002

PROSPECTS	SANTOORD HOSPITAL	PUBLIC HOSPITALS
<p>Positive</p> <p><i>"I will return to my old job/sell fruit and vegetables/open my own business/try to get a less strenuous position/find a better job."</i></p> <p><i>"I believe I will be employed again."</i></p> <p><i>"There are many opportunities out there."</i></p> <p><i>"I am still employed/capable of working again/am going back to school."</i></p>	30	12
<p>Uncertain</p> <p><i>"I will apply for a sick pension/have to work for myself."</i></p>	3	5
<p>Negative</p> <p><i>"I am HIV-positive/too weak/already finished/disabled."</i></p> <p><i>"I have no chance of finding work again."</i></p> <p><i>"I will be sick for the remainder of my life/become sick again."</i></p> <p><i>"I cannot walk long distances/work again."</i></p> <p><i>"I will infect others."</i></p> <p><i>"I feel very old in my body."</i></p>	22	18
Total	55	35

5. Health beliefs, knowledge of TB and the early illness career of TB hospital patients

Perceptions of the causes of TB

The influence of membership to an ethnic group on the interpretation of symptoms that trigger the search for care, and the kind of care that is sought and for how long, is imperative. According to Rubel & Garro (1992: 2), research has shown that, rather than the symptoms themselves, it is the varying interpretation of their meaning and what they imply for a functioning social life that motivate group members to seek care: *“Patients’ interpretations of symptoms, decisions on when and from who to seek help, and their response to medical regimens conform to their own explanatory model of what’s wrong ... Nevertheless, health care providers often do not recognize this. Patients’ efforts to cope with symptoms, or adapt treatment recommendations to the apparent course of the disease, such as lessening discomforting symptoms, are often construed by providers as ignorance, lack of concern, vacillation, or non-adherence.”*

In the current study less than one-quarter (n=12/22%) of the Santoord Hospital patients during the interviews offered a ‘Western-medical’ explanation of how they became ill with TB (Table 46). Just more than one-quarter (n=9/26%) of the public TB hospital patients offered such an explanation. This reflected negatively on health education in both the concerned types of hospitals. This was all the more of concern in the case of Santoord Hospital given the comparative longer duration of hospitalisation at this SANTA centre than at the public hospitals. However, in both samples it was found that the largest proportions of TB patients stated that they ‘*did not know*’ how they became ill with TB (Santoord Hospital, n=18/33%; public hospitals, n=9/26%). Given that the infectiousness of TB probably is the most prominent theme in TB health education, this situation was very worrying.

Table 46 TB hospital patients' views about how they fell ill with TB (n), 2001/2002

BELIEF	SANTOORD HOSPITAL	PUBLIC HOSPITALS
Uncertain, i.e. <i>'I really don't know'</i> .	18	9
Work and environmental factors, e.g. <i>'dust'</i> , <i>'chemicals'</i> , <i>'air pollution'</i> and <i>'working in the mines'</i> .	15	5
Western-medical, e.g. <i>'from infected persons'</i> and <i>'from somebody coughing'</i> .	12	9
Personal high-risk behaviour, e.g. <i>'smoking'</i> , <i>'alcohol'</i> and <i>'lack of hygiene'</i> .	7	3
Diet, e.g. <i>'poor food'</i> , <i>'drinking too much cold liquids'</i> and <i>'coolaid'</i>	1	2
Poor health, e.g. <i>'I had cancer before'</i> , <i>'this is the result of AIDS'</i> and <i>'I had a weak immune system'</i> .	1	5
<i>'Bewitchment'</i> , i.e. <i>'Ho lò yà'</i> *	-	1
Missing data	1	1
Total	55	35

* Translation from Morija (1996: 12).

Table 47 shows that, while Santoord Hospital patients often *'did not know'* how they became ill with the disease (n=18/33%), they were also more inclined to ascribe their infection with TB to work and environmental factors (n=15/27%) than public TB hospital patients (n=5/14%). The table indicates that Santoord Hospital patients were also less inclined to ascribe their TB illness to supernatural phenomena. However, in the combined sample there were substantial groups of patients strongly agreeing that bad wishes from other people (n=19/21%), having been *'bewitched'* (n=11/15%), and the *'lehadima nonyana'*/*'lightning bird'*¹⁵³ (n=11/12%), explained TB. It would seem that in Africa attribution of TB to witchcraft is a traditional occurrence. Ndeti (1972) found that association of TB with witchcraft or folk illnesses cause delays to seek professional care, as well as very high default rates in East Africa.

Table 47 Whether TB hospital patients agree with traditional explanations of TB (n), 2001/2002

STATEMENT	HOSPITAL	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	TOTAL
<i>"TB is not caused by a germ, but by other people wishing bad things for me."</i>	Santoord Hospital	7	1	5	2	40	55
	Public hospitals	10	1	3	-	21	35
<i>"TB is not caused by a germ, but because someone has bewitched me."</i>	Santoord Hospital	6	1	5	4	39	55
	Public hospitals	6	1	5	-	23	35
<i>"TB is not caused by a germ, but by entities such as the 'Lightning Bird'."</i>	Santoord Hospital	4	-	5	3	43	55
	Public hospitals	6	1	5	-	23	35

¹⁵³ Translation gleaned from Morija (1996: 12, 44).

Early symptomatic experience of TB

The universal symptoms of TB include: fever, night sweats, weight loss and the spitting of blood (expectoration) (Brooker, 2003: 303; Martin, 1998: 677). The following frequencies represent the combined Santoord Hospital and public TB hospital patient sample's indication of the initial two (main) symptoms¹⁵⁴ of the (TB) illness they experienced¹⁵⁵: coughing (n=50/30%); night sweats (n=31/18%); chest pain (n=22/13%); weight loss/loss of appetite (n=22/13%); fatigue (n=14/8%); expectoration (n=6/4%); headache (n=4/2%); stomach ache/vomiting (n=4/2%); painful/swollen body/feet (n=4/2%); sore throat (n=4/2%); back ache (n=2/1%); dizziness (n=2/1%); shortness of breath (n=2/1%); and fever (n=1/1%).

As is to be expected, TB hospital patients did not always immediately realise that they had contracted TB. The survey revealed that most patients (n=45/50%) in the combined sample initially thought their ailment was flu. The second largest proportion (n=12/13%) did not know what their ailment was. Nine (10%) TB hospital patients reportedly immediately suspected TB, six (7%) thought they had '*ordinary sickness*', and four (4%) feared they had HIV/AIDS.

Pre-illness awareness and knowledge of TB

Of the combined Santoord Hospital and public TB hospital patient sample, most respondents (n=53/59%) reported that they did not know what TB was before being diagnosed with it. However, in a later question the majority of respondents (n=49/54%) stated that they knew someone suffering from TB before they themselves were diagnosed with the disease.¹⁵⁶ In the largest proportion of these cases (n=24) this person was a parent/grandparent, child, sibling, uncle/aunt, cousin or a '*distant*' blood relative. In nineteen cases she/he was a neighbour or a community member, and in three cases respectively a spouse/partner and a co-worker.

¹⁵⁴ Not all of the 90 respondents named two symptoms. A total of 168 symptoms were mentioned. This figure was used for the calculation of the percentages here described.

¹⁵⁵ It is acknowledged that this type of measurement draws strongly on the ability of respondents to accurately recall what might have been a very subjective experience.

¹⁵⁶ A possible explanation for this seemingly anomaly is that these patients might only have realised/been informed of someone else's TB status once they themselves became ill. It stands to reason that people with TB might be more willing to admit this to other persons in the same predicament.

Health-seeking behaviour for TB

This is an important topic because most national TB control programmes, including the South African one, no longer encourage massive and expensive TB case detection programmes. The WHO DOTS strategy also does not entail active case-finding. In fact, experts now believe that passive case-finding is the best way to identify TB (Peters, 2003). Therefore, it is imperative to develop an understanding of people's initial acknowledgement of TB symptoms, and as to when, and from whom, they seek assistance.

TB researchers have sought to determine the relationship among the subjective level of concern about symptoms, the decision to seek help and laboratory findings of active TB disease. For example, Banjeri & Andersen, using the index symptoms of coughing for more than one month, fever for more than one month, chest pain, and coughing with blood, found in rural India that people who were '*merely concerned*' about their symptoms sought medical care and were indeed diagnosed with active TB (cited in Rubel & Garro, 1992: 3). In contrast to the Indians who sought professional medical care in response to early symptoms, a different self-initiated response to symptoms characterised people of Mexican descent in Texas and California (Rubel & Garro, 1992: 3): Lengthy delays took place before symptoms were brought to the attention of a physician. This was ascribed laymen's diagnosis of gripe, bronchitis, or the folk illness '*susto*' (a condition not thought to be treatable by Western physicians). Delays as long as eight-and-a-half months took place despite Mexican workers acknowledging the troublesome nature of symptoms, such as loss of weight, back pains, intermittent headaches, coughing, fatigue, and a running nose. Rubel & Garro (1992: 3) wrote: "*All the California respondents began their treatment with self care. Because most of the men attributed their fatigue and weight loss to hard work and lack of sleep, self-treatment consisted of retiring earlier, smoking or drinking less, and leading what they perceived to be a healthier lifestyle. The women also began self-treatment with attempts to sleep longer hours. These men and women respondents also engaged in self care, to no lasting effect, by the purchase of over the counter remedies for gripe or [bronchitis].*"

The current TB hospital patient survey also questioned patients as to what they first did when experiencing the initial symptoms of TB. Of the combined Santoord Hospital and public TB hospital patient sample, almost half (n=42/47%) of the patients stated that they first visited a (PHC) clinic.¹⁵⁷

¹⁵⁷ Similarly, Edginton (2003) found that 40% of the 1 300 patients diagnosed with TB at the Chris Hani Baragwanath Hospital over an eight-week period in 2001/2, had first presented to a PHC clinic with their TB illness.

Twenty-two patients (24%) consulted a general practitioner (doctor). Twelve (13%) presented directly at a (public) hospital. Seven (8%) attempted self-medication by means of over-the-counter drugs. Ostensibly, only four (4%) consulted a traditional healer/used traditional medicine.¹⁵⁸ Self-medication by means of home remedies took place in three (3%) cases.

Previous hospitalisation for TB

At both Santoord Hospital (n=31/56%) and public hospitals (n=21/60%) the majority of interviewed patients stated that the hospitalisation they were then undergoing, was not their first for TB. The mean duration of previous hospitalisation for TB of Santoord Hospital patients was reportedly a lengthy 130 days, and of public TB hospital patients 51 days. Of the 31 Santoord Hospital patients who had been hospitalised for TB before, fifteen (48%) indicated that their health had not improved by the time they were last discharged. This was the case for an even larger cohort of public TB hospital patients who had been hospitalised for TB before (n=13/62%).

6. Admission and education of TB hospital patients

Early treatment by hospital staff

Table 48 indicates that Santoord Hospital patients, when first admitted, were less inclined (than public TB hospital patients) to have experienced both the nurse in charge of the ward (n=37/69%) and the visiting doctor (n=38/69%) as supportive/sympathetic towards their plight, than public hospital patients. When first admitted, respectively 33 (94%) and 30 (88%) public TB hospital

In fact, half of the patients who were diagnosed with TB at the hospital had attended three or more health facilities before they were here diagnosed. Furthermore, because half of those patients who were referred from the hospital to (Soweto) PHC clinics did not reach those clinics in time to avoid interruption of their treatment, and because 21% 'never arrived' at the clinics, 'TB centres' to link both hospitals and clinics were established. Edginton described this as a possible model for other provincial hospitals.

¹⁵⁸ This low frequency is congruent with the finding of Ellis *et al.* (1997: 1047) that TB patients who resided in Ravensmead and Uitsig in the Western Cape relied 'exclusively' on the conventional biomedical curative approach of the medical system to deal with TB. Reluctance by patients to admit utilisation of traditional healers commonly occurs in South Africa. This may be a remnant of a tradition to defend the legal monopoly of doctors 'as a measure to protect the public from quacks, who were commonly depicted as ignorant and damaging' (Schepers & Hermans, 1999). Indeed, Ember & Ember (2001: 2060) stated that South Africa had a highly developed traditional medical sector of herbalists and diviners who provided treatment for physical and psycho-spiritual illnesses to 'millions of the black population'. Moreover, according to the authors, some of these people also received treatment from modern health professionals and facilities. The practice or usage of alternative medicine in South Africa was not confined solely to African people: *Reader's Digest's 'Family guide to natural medicine'* in 1999 stated that therapists recommended honey bush tea as a 'rural' treatment for TB and other lung infections. Other indigenous South African remedies included a

patients experienced the nurse in charge of the ward and the (resident) doctor as supportive/sympathetic.

Early treatment by other patients

The above-mentioned tendency was reversed when it came to how TB hospital patients experienced their welcoming to the hospital by other patients already there. Almost all (n=52/95%) Santoord Hospital patients said that other patients were supportive/sympathetic, compared to less than seven in ten (n=24/69%) public TB hospital patients. Not only were there more other (TB) patients to seek support from at Santoord Hospital, the patients also seemed to have developed an ethos to fend for each other. It might have been that Santoord Hospital patients, realising that the staff were less than caring about their TB ailment and problems, flocked together in a social aggregate of their own. One of the tenets of Kurt Lewin's *'gestalt'* psychology is that people tend to spontaneously group (Sears *et al*, 1988: 12). When a new patient arrived at Santoord Hospital there was little doubt that she/he was a (fellow) TB sufferer. At Santoord Hospital patients were probably also more likely to group together than public TB hospital patients, because they had more and longer face-to-face contact with one another and realised that they were dependent on one another (rather than on the *'dominating'* hospital staff) for support.

Table 48 TB hospital patients' views of staff and other patients when first admitted to the hospital (n), 2001/2002

TREATED BY	HOSPITAL	SUPPORTIVE/ SYMPATHETIC	UNCERTAIN/ NEUTRAL	NEGATIVE/ REJECTION	TOTAL
Nurse in charge of ward	Santoord Hospital*	37	10	7	54
	Public hospitals	33	2	-	35
Doctor	Santoord Hospital	38	9	8	55
	Public hospitals**	30	3	1	34
Other patients	Santoord Hospital	52	2	1	55
	Public hospitals	24	11	-	35

* Missing data (n=1).

** Missing data (n=1).

TB hospital health education

The existence of patients is the justification for any system of nursing and medical care. Nevertheless, as is shown in Chapter 2, traditionally the role of the patient is a passive one: "*Patients are not supposed to ask questions about the state of their health*" (Masson, 1985: 159). Pauwels (2003) argued

tea infused from the leaves of the pennywort or wild violet (Lee, 1992: 349). *Reader's Digest's* Australian *'Body book'*

that health communication campaigns are vital in disease prevention and health promotion, but *'only to the extent that these efforts are grounded in a thorough understanding of the larger context of the health issue'*. Thus, the challenge of effective health communication in a multicultural context *'calls for a strategic and integrated approach that involves many different types of expertise and research'*. Defective health communication might undermine the use of health services in the future: *"Patients whose emotional needs are not met in their interaction with physicians are less likely to return to that physician in the future, and may instead turn to alternative medical services"* (Sears *et al.*, 1988: 525-526). It may also result in patients not adopting their behaviour to the treatment recommended by practitioners (implying non-adherence¹⁵⁹ to treatment¹⁶⁰).

The South African NTCP in its 1998 publication, *'Tuberculosis: a training manual for health workers'* (Balt *et al.*, 1998: 109), states that a (*'communicative'*) nurse should convey knowledge and information to the patient and that the she/he should allow the patient to *'freely'* ask for more information or clarification about the disease and its treatment. Further to the manual, *'two-way'* communication is emphasised as necessary to ensure a *'longstanding relationship, which is important to prevent interruption of treatment'*. The manual also stresses the basic necessity for such health education to take place in patients' own language.

In the patient survey of the current study an attempt was made to gauge both the content and the comprehensibility to TB hospital patients of the health information that they received. The majority (n=29/53% to n=44/80%) of Santoord Hospital patients stated that they had not been educated about ten of the eleven issues included in Table 49. The only such issue that a (small) majority (n=29/53%) of these patients reportedly had been educated about was the *'importance of eating before taking treatment'*.

However, if anything, the situation at public hospitals was reportedly even worse than at Santoord Hospital. Of particular concern was that none of these patients said that they were informed about

simply stated that treatment for TB is usually drug therapy (Guinness, 1986: 123).

¹⁵⁹ Also see Table 31 that shows that health workers and managers during the research feedback workshops of the Joint Free State TB Research Project stated that non-adherence to treatment was a common reason for the hospitalisation of TB patients in the Free State.

¹⁶⁰ It was then estimated that about one-third of patients in the United States of America *'typically'* failed to follow treatment recommendations. In fact, 93% of patients also ignored lifestyle advice such as to stop smoking or lose weight (Sears *et al.*, 1988: 526).

emergency procedures. Also, almost all had not been informed about MDRTB and the association between Tb and HIV/AIDS. Again, the fact that public TB hospital patients were not nearly hospitalised as long as Santoord Hospital patients might render this comparison unfair. It does not seem that the inclusion of *'when you arrived at this hospital'* in the phrasing of the question quite levelled the playing field in this respect.

Table 49 Health education of TB hospital patients when first admitted (n), 2001/2002

INFORMATION/EDUCATION RECEIVED WITH REFERENCE TO	HOSPITAL	INFORMATION PROVIDED?			
		Yes	Uncertain	No	Total
Probable duration of hospital stay	Santoord Hospital	23	-	32	55
	Public hospitals	10	-	25	35
Necessity of completing treatment	Santoord Hospital	26	-	29	55
	Public hospitals	7	-	28	35
Side-effects of treatment	Santoord Hospital	12	-	43	55
	Public hospitals	7	-	28	35
Importance of eating before taking treatment	Santoord Hospital	29	-	26	55
	Public hospitals	8	-	27	35
Link between HIV/AIDS and TB	Santoord Hospital	14	4	37	55
	Public hospitals	4	-	31	35
Negative effects of alcohol and drugs on TB treatment	Santoord Hospital	25	-	30	55
	Public hospitals	7	4	24	35
How to avoid infection of others	Santoord Hospital	21	-	34	55
	Public hospitals	4	-	31	35
Visiting arrangements	Santoord Hospital	16	2	37	55
	Public hospitals	3	-	32	35
Emergency procedures (what to do when in urgent need of care)	Santoord Hospital	10	1	44	55
	Public hospitals	-	-	35	35
MDRTB	Santoord Hospital	24	-	31	55
	Public hospitals	2	-	33	35
Hospital rules for patients	Santoord Hospital	14	2	39	55
	Public hospitals	5	-	30	35

During the interviews TB hospital patients might have been indisposed to appear unable to grasp the information provided to them when admitted to hospital. In both samples almost all patients stated that the information they received was comprehensible to them (Table 50).

Table 50 Comprehensibility of health education to TB hospital patients when first admitted (n*), 2001/2002

INFORMATION/ EDUCATION RECEIVED IN RESPECT OF	HOSPITAL	COMPREHENSIBLE?		
		Yes	No	Total
Probable duration of hospital stay	Santoord Hospital	22	1	23
	Public hospitals	9	1	10
Necessity of completing treatment	Santoord Hospital	25	1	26
	Public hospitals**	5	1	6
Side-effects of treatment	Santoord Hospital	12	-	12
	Public hospitals	7	-	7
Importance of eating before taking treatment	Santoord Hospital	28	1	29
	Public hospitals	8	-	8
Link between TB and HIV/AIDS	Santoord Hospital**	12	1	13
	Public hospitals	4	-	4
Negative effects of alcohol and drugs on TB treatment	Santoord Hospital	25	-	25
	Public hospitals	7	-	7
How to avoid infection of others	Santoord Hospital	21	-	21
	Public hospitals	4	-	4
Visiting arrangements	Santoord Hospital	16	-	16
	Public hospitals	3	-	3
Emergency procedures (what to do when in urgent need of care)	Santoord Hospital	10	-	10
	Public hospitals	-	-	-
MDRTB	Santoord Hospital	23	1	24
	Public hospitals	2	-	2
Hospital rules for patients	Santoord Hospital	14	-	14
	Public hospitals	5	-	5

* n-values confined to respondents who stated that they did receive health education with reference to particular issues (See Table 49).

** Missing data (n=1).

7. Social and health worker support and stigmatisation of TB hospital patients

Social support and stigmatisation

The impact of social stigmatisation¹⁶¹ on TB hospital patients' adherence to treatment in a Pakistani hospital is elucidated in Box 10.

¹⁶¹ Goffman (1963) and Arboleda-Flórez (2003: 645-646) traced the historical origins of the concept 'stigma'. The ancient Greeks applied 'stizein' (tattoos or distinguishing burn or cut marks) to slaves or criminals to alert other people to whom they were and that they were less-valued members of society.

Box 10 TB treatment defaulting at Bethania Hospital, 1988-1998

1988-1990: In Sialkot, Bethania Hospital (a Pakistani mission hospital), was an acknowledged centre for TB control. It annually diagnosed about 1 300 new TB cases. However, the hospital experienced major problems to ensure that TB patients' comply with treatment. Despite the hospital's (TB) team making a special effort to optimise case-holding, 72% of the patients did not complete the 12-month treatment course. Even after the introduction of a short-course chemotherapy regimen the defaulter rate remained high at 56%. Initial attrition of patients during treatment was very high, i.e. 25% of patients abandoned the short-course regimen in the first month. As the initial three months of treatment cured about 80% of new smear-positive cases in neighbouring India, such early abandonment of treatment at Bethania Hospital was of great concern. To rectify the situation the hospital introduced a combined strategy of supervised treatment and hospitalisation for the initial two months. While the early dropout rate improved, the defaulting rate remained high.

A focus group study was carried out to establish how patients perceived TB, how their perceptions of TB affected their acceptance of their diagnosis and treatment, what the social consequences of being a TB patient were, and whether treatment cost contributed to defaulting. It was found that Bethania Hospital patients perceived TB as a very dangerous infectious disease, and experienced feelings of both anxiety and isolation. These patients mostly knew that TB is transmitted from person to person, but they did not know exactly how. Many patients attributed their disease to external factors such as an accident or a *'cold bath'*. This was despite the hospital having informed them about TB. It was possible that patients rejected their diagnosis and treatment because they were afraid to be labelled as *'TB patients'*. Some patients also perceived the (direct and indirect) costs of treatment as a major obstacle to completing their therapy. Nevertheless, it was remarkable how families *'once they became convinced of the importance of treatment, [were] willing to make huge financial sacrifices'*. It was recommended, therefore, that health education should become an integral part of the TB control programme. It was stated that major emphasis ought to be placed on the curability of the disease. TB patients and their relatives would have to receive regular counselling from (specially) trained health workers. Health professionals would also have to anticipate *'critical moments'* in treatment adherence and assist patients and their families to bridge these: *"Health professionals should act to destigmatize and avoid any attitudes that may affirm the stigma. Health education implies education of both patient and medical staff."*

1997-1998: A study based on face-to-face interviews was carried out to establish the demographic and socio-economic profile, social support, *'key values'*, knowledge of TB, perceptions of the curability of the disease, stigmatisation experienced, and treatment adherence of Bethania Hospital patients. A structural model was proposed that hinged on the *'latent construction of stigmatization'*: *"Stigmatisation affects compliance through the tandem of regularity and duration of therapy. Persons who have been strongly stigmatised display more irregular illness behaviour and find it more problematic to see the difficult and troublesome treatment through to the end."* In terms of this model non-adherence is a mechanism to help relieve the patient from stigmatisation: *'for a while, the TB patient does not have to be ashamed and can take a break when the pressure of the medical regime becomes too much to handle'*. The *'stigmatisation perspective'* brought insight into the mechanisms by which norms were rejected by Bethania Hospital patients. They were stigmatised because their illness *'[disrupted] their lives and [caused] insecurities'*; *'[threatened] their social relations and social structure because [TB had] the hallmark of a sub-culture of poverty, weakness and lack of hygiene'*; and *'gradually and surreptitiously [eroded] the support afforded by social networks'*. Furthermore, these patients' friends were afraid of becoming ostracised as well if they associated with the patients.

DOT was a panacea for Bethania Hospital and health professionals were tasked with the responsibility to ensure TB patients' adherence to DOT. They also had to provide purposeful information and health education. Succinctly, it was recommended that: *"The TB care delivery system needs to be located as close to the home of the patients as possible, needs to be patient friendly and reliable for the patient, [and should incorporate] a complete DOT strategy"*.

Sources: Compiled from Liefoghe *et al.*, 1995; Meulemans *et al.*, 2002.

The stigma and rejection that TB patients experience in their communities in South Africa has made them reluctant to talk about a disease so closely associated with both poverty and HIV/AIDS (Integrated Regional Information Network, 2003). Rubel & Garro (1992: 4) described the effort by the Polela Health Centre in KwaZulu-Natal to improve *'Zulu health'* using the precepts of social

medicine. While some other difficulties were surmounted, PTB proved intractable because of its associated social stigma. According to the authors it was the experience of the centre that even although a person may have been attending clinical sessions at the centre for years, an announced diagnosis of TB would immediately terminate such attendance. Even worse, to suggest that a person with TB could spread disease was tantamount to identifying that person as a ‘*witch or sorcerer*’, because only such a person could exercise such ‘*powers*’. Because the powers to bewitch was seen as passed on through familial lines, identification of one person as a ‘*poisoner*’ would implicate other family members also.

In respect of the combined Santoord Hospital and public TB hospital patient sample in the three study areas of the Joint Free State TB Research Project, between five and eight in ten respondents believed that TB is stigmatised, even highly stigmatised, in their communities. Table 51 shows that the combined sample mostly (n=58/64%) agreed with a statement to the effect that people believe that to have TB is a disgrace. On the other hand, large proportions of Santoord Hospital (n=24/44%) and public TB hospital (n=12/34%) patients also strongly disagreed with this statement. This might signify that the ardent TB health education campaign of the Free State TB Control Programme was beginning to bear fruit.

In South Africa some TB patients avoid seeking treatment for fear that their illness will be equated with HIV and that they will suffer discrimination (*CDC News Updates*, 2002). Indeed it was found in the current survey that about six in ten (n=61/68%) TB hospital patients in the combined sample thought that most people in their communities believed having TB is akin to having AIDS.

Table 51 TB hospital patients’ views on how communities see people with TB (n), 2001/2002

STATEMENT	HOSPITAL	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	TOTAL
“Most people in my community believe having TB is a disgrace.”	Santoord Hospital	25	4	2	-	24	55
	Public hospitals	27	2	-	1	5	35
“Many people in my community believe that having TB is the same as having AIDS.”	Santoord Hospital	34	6	3	-	12	55
	Public hospitals	20	1	1	1	12	35

Disturbingly, the hospital patient survey of the current (n=31/88%) study revealed that most TB patients at both Santoord Hospital (N=29/53%) and especially public hospitals themselves believed

having TB '*is a disgrace*' (Table 52). The lesser incidence of this belief at Santoord Hospital might have been explained by the longer company they kept with other TB patients, as well as the (positive) impacts of the socialisation and support processes amidst themselves. Substantial minorities of between one and three in ten patients in the combined sample also lamented that their neighbours and (to a lesser extent) their families, treated them '*differently*'. This evidence suggests that TB hospital patients in the Free State experience stigmatisation.

Table 52 TB hospital patients' views of the disease and stigmatisation (n), 2001/2002

STATEMENT	HOSPITAL	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	TOTAL
"I personally believe having TB is a disgrace."	Santoord Hospital	23	3	-	1	28	55
	Public hospitals	29	2	-	1	3	35
"My neighbours treat me differently because I have TB."	Santoord Hospital	16	2	3	2	32	55
	Public hospitals	9	-	6	-	20	35
"People in my family treat me differently because I have TB."	Santoord Hospital	7	2	-	2	44	55
	Public hospitals	4	-	5	-	26	35

Not only did TB hospital patients often personally think having TB is something to be ashamed of, it seemed that almost half of those few patients at Santoord Hospital and public hospitals who were married, were dissatisfied, actually very dissatisfied, with the support they received from their husbands/wives (Table 53). One can hardly imagine more hurtful stigmatisation than that exerted by a patient's own life companion.

A large majority of TB patients in the combined sample were, however, very satisfied with the support they received from their parents. It was touching to establish that without a single exception all TB hospital patients in the combined sample who had children, were satisfied (actually very satisfied), with the support they received from their children. Barring a few exceptions, these patients were also satisfied with the support they received from their friends. However, only 27 patients (30%) answered the question. The rest felt that it did not apply in their case - seemingly they did not have friends. For all that they were ostracised at home and in their communities one would have

hoped that TB patients at least experienced unconditional acceptance when in hospital. This was not the case at Santoord Hospital (Table 54).

Table 53 TB hospital patients' views of the social support they receive (n*), 2001/2002

SUPPORT FROM	HOSPITAL	VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED	TOTAL
Spouse	Santoord Hospital	11	-	-	7	18
	Public hospitals	4	1	1	3	9
Parents	Santoord Hospital	17	-	-	1	18
	Public hospitals	8	-	-	1	9
Children	Santoord Hospital	17	1	-	-	18
	Public hospitals	9	-	-	-	9
Friends	Santoord Hospital	12	3	1	2	18
	Public hospitals	6	1	1	1	9
Neighbours/community members	Santoord Hospital	11	4	2	1	18
	Public hospitals	7	-	1	1	9

* n-values confined to respondents to whom the categories applied.

Health workers support and stigmatisation

Goffman (1963:11) traced the concept stigma to bodily evidence of disgrace; i.e. signs cut or burnt on the body to advertise that the bearer was a slave, criminal or traitor (a '*blemished*' person '*to be avoided*'). The beginning of the process of hospitalisation is a social one – hospitalisation involves a number of considerations, such as the visibility of '*abnormal behaviour*' and the socio-economic status of the patient. Hospital regimes undermine the patient's '*civilian self*' by prescribing how she/he should behave. This involves '*stripping*' from civilian clothes, being clad in prison-like attire, losing personal possessions and undergoing constant review of one's behaviour. Patients partially adjust to the hospitalisation experience by regaining some kind of control if they can. This may take the form of '*small*' acts, such as using the hospital's toilet paper to roll cigarettes or taking a hospital wheelchair for a ride outside the depressing confines of the ward. To do this patients sometimes obstinately resist vehement reprimands by nurses, matrons and doctors.

Like Goffman, Foucault also gave much attention to studying organisations in which individuals are physically separated from the outside world for long periods. In these organisations people are '*kept hidden away*' or '*incarcerated*' (Giddens, 1989: 293). Such systems differ radically from other organisations, because of their totally closed nature. Hence Foucault (1971: 229) asks: "*Is it surprising that prisons resemble factories, schools, barracks, hospitals, which all resemble prisons?*" In terms of medical care, the process of '*institutionalisation*' may have many negative effects. Often, the rationale of the effective

management of the institution overrides the more general concerns of patient welfare. Even while patients in hospitals may have medical support and facilities available that may not readily be available outside the institution, the overall environment of the hospital may not be conducive to their general health and well being. *“Concepts of care for patients in long-term treatment institutions have gradually come to embrace the notions that the treatment environment has therapeutic relevance, and that this environment includes the opinions and attitudes of those hospital staff who are charged with the care of patient”* (Guerrin, 1966: 37). Davidson & Smirnoff (1999) studied inner-city TB patients’ satisfaction with New York’s DOT programmes and found that after the opportunity to receive good medical care, they valued support of staff as the most important aspect of DOT. Nurses were the providers with whom TB patients were most satisfied.

Judging from Table 54 there is no doubt that public hospital TB patients in the three study areas of the Joint Free State TB Research Project were much more positively disposed towards staff. In fact, just more than half (n=28/51%) of the Santoord Hospital patients disagreed, and more typically strongly disagreed, with a statement that the hospital staff did their work professionally. Thereupon, only one in ten (n=3/9%) public TB hospital patients thought that staff members were not professional. Similarly, four in ten (n=21/38%) Santoord Hospital patients did not experience hospital staff as sympathetic or supportive, while only one in ten (n=3/9%) public TB hospital patients held such experience/views.

Table 54 TB hospital patients’ general views of staff (n), 2001/2002

STATEMENT	HOSPITAL	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	TOTAL
<i>“Staff of this hospital does their work well/professionally.”</i>	Santoord Hospital	23	4	-	9	19	55
	Public hospitals	26	3	3	-	3	35
<i>“Staff at this hospital is sympathetic/supportive towards me.”</i>	Santoord Hospital	25	9	-	4	17	55
	Public hospitals	26	3	3	1	2	35

TB hospital patients’ contact with a physician

When asked how often they saw a doctor at the hospital, TB patients responded as in Table 55. At Santoord Hospital the preponderant answer (n=27/49%) was once per month. Among all public TB hospital patients the frequency of contact with a doctor was at least once per week (n=35/100%),

but more typically daily and even more than once per day. Clearly public TB hospital patients could depend on seeing a doctor regularly, while doctor visits to Santoord Hospital were more sporadic. If doctors at Santoord Hospital also consulted patients from behind a glass particle¹⁶² it must have really enforced a sense of distance between patients and physicians.

Table 55 Contact with a doctor reported by TB hospital patients (n), 2001/2002

HOSPITAL	>ONCE PER DAY	ONCE PER DAY	COUPLE OF TIMES PER WEEK	ONCE PER WEEK	COUPLE OF TIMES PER MONTH	ONCE PER MONTH	<ONCE PER MONTH	TOTAL
Santoord Hospital	-	-	-	-	4	27	24	55
Public hospitals	11	3	9	12	-	-	-	35

8. TB hospital patients' views of the necessity of their hospitalisation

According to a study in Madras (India) 10% of hospitalised TB patients absconded from treatment, compared to none of the ambulatory patients (Nuwaha, 1999: 81). Twenty-nine percent of patients admitted to a TB treatment unit at a Massachusetts hospital were admitted involuntarily; of these, 44% required long-term confinement under court order (Singleton *et al.*, 1997: 838). Existing research therefore raises the question whether TB patients themselves think that they need to be hospitalised. The fieldwork conducted for the Joint Free State TB Research Project attempted to answer this question.

Santoord Hospital patients were markedly less inclined to agree that they needed to be in hospital than public TB hospital patients (Table 56). In fact, almost four in ten (n=21/38%) of these patients strongly disagreed that they were so ill that they needed to be in hospital, compared to only three (9%) of the public TB hospital patients. Whilst it is duly acknowledged that patients are not always the best judges of their (medical-technical) care needs, it should be recalled from Chapter 5 that some Free State TB control programme workers and district TB co-ordinators and even members of the (national) Inpatient Care Team, thought that Santoord Hospital might well have inflated its patient numbers for reasons of financial survival. Thus, for once, TB patients and health workers/managers were saying the same thing.

¹⁶² See Chapter 5 (Paragraph 3.3).

Table 56 TB hospital patients' views of the necessity of their hospitalisation (n), 2001/2002

STATEMENT	HOSPITAL	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	TOTAL
"I agree that I am so ill that I need to be in hospital."	Santoord Hospital	29	4	-	1	21	55
	Public hospitals	28	2	-	2	3	35

9. TB hospital patients' views of the hospital infrastructure and organisational arrangements

In 1996, shortly after the new government took over in South Africa, Doherty *et al.* (1996: 65) remarked that health facilities and 'especially hospitals' were in a 'dilapidated state with crumbling electrical, water and steam systems'. This, the authors ascribed to the fact that the previous government had not upgraded or replaced hospitals as they reached the end of their natural lifespan. Accelerated decay of hospitals had resulted from minimal maintenance. The inappropriate design of many hospitals had led to 'overcrowding, lack of privacy and expensive modes of service delivery'. Hospitals, such as those in North West, had 25% more beds in use than originally anticipated by the hospital planners, architects and builders.

As stated in Chapter 3 (Paragraph 3), in 1997, while health sector reform in South Africa had focused on the development of the DHS and due to the fact that most available funding remained tied up in hospitals, it became increasingly evident that DHS development was integrally linked to successfully reforming the hospital sector (Ruff, 1997: 59). The 1998 South Africa Demographic and Health Survey¹⁶³ (Department of Health, 1998: 193) found among a sample of 12 860 households across the country, that 12% of public hospital users were dissatisfied with the services rendered by these facilities, compared to 7% of private hospital users who were dissatisfied. Also in 1998, Edwards-Miller *et al.* (1998: 161-184) recommended that it was important for equity to become an integral part of the mission of health care providers. The authors found that South African hospitals had:

- Unreliable electricity supply in 33% of the cases if rural and 27% of the cases if urban.
- Unreliable water supply in 39% of the cases if rural and 23% of the cases if urban.
- Unreliable telephonic communication in 4% of the cases if rural and 11% of the cases if urban.
- Unreliable facsimile communication in 8% of the cases if rural.
- No e-mail access in 65% of the cases if rural and 62% of the cases if urban.

¹⁶³ The CHSR&D in partnership with King Finance Corporation performed the fieldwork for the South African Demographic and Health Survey (Department of Health, 1998: xi).

- No functioning sonar equipment in 65% of the cases if rural and 27% of the cases if urban.
- No oxygen in wards in 19% of the cases if rural and 7% of the cases if urban.
- No monitoring of drug expenditure in 15% of the cases if rural and 13% of the cases if urban.
- No community representation in the form of a hospital board in 40% of respectively both rural and urban cases.
- No hospital complaint procedure in 33% of the cases if rural and 79% of the cases if urban.
- No after hours X-ray services in 15% of the cases if rural and 17% of the cases if urban.
- No access to 24-hour blood transfusion services in 44% of the cases if rural and 20% of the cases if urban.

In 1999, Morris (1999: 180), citing the Hospital Strategy Project, stated that the nursing-patient ratio in South African district hospitals was slightly below that recommended by the Project, and that medical staffing levels were as low as 66% in the Eastern Cape. 24-Hour blood transfusion services were (still) not available in 44% of district hospitals nationally. After hours X-ray services were unavailable in 20% of district hospitals. Sonar equipment was unavailable in 38%, oxygen in all wards in 18%, and resuscitation equipment also in 18% of district hospitals.

Returning to the Santoord Hospital survey in 2001 it was found that about three-quarters of Santoord Hospital patients were dissatisfied and even more typically very dissatisfied with four of the variables included in Table 57: distance to the hospital from their homes (n=42/76%); the opportunity to express their culture and beliefs (n=41/75%); recreation facilities at the hospital (n=40/73%); and privacy afforded to them at the hospital (n=40/72%). Their counterparts in public hospitals (n=23/66%) shared this dissatisfaction only in respect of the provision of recreational facilities. The new MDR-unit at Dr. J.S. Moroka Hospital is also attempting to meet this need.¹⁶⁴

Despite the socialist roots of the ruling ANC government, South Africa is traditionally a *deeply religious country* with high rates of participation in religious life among all race groups (Ember & Ember, 2001: 2059). Take note that almost two-thirds of Santoord Hospital (n=34/62%) and almost

¹⁶⁴ See Photograph 18.

one-third (n=11/31%) of public TB hospital patients were dissatisfied, and more typically very dissatisfied, with the opportunity to practise their religion¹⁶⁵ while in hospital.

Only in two respects were the majority of Santoord Hospital patients very satisfied, i.e. safety at the hospital (n=34/62%) and the provision of bedclothes (n=31/56%). Contrarily, public TB hospital patients were very satisfied with eight of the twelve variables included in Table 57: the general appearance of the hospital (n=25/71%); safety (n=25/71%); bathrooms/toilet facilities (n=24/69%); bedclothes (n=24/69%); sleeping arrangements (n=23/67%); privacy (n=23/66%); hospital clothes (n=23/66%); and the distance the hospital was located from their homes (n=21/60%).

¹⁶⁵ The country's population is overwhelmingly Christian with only very small Jewish, Muslim and Hindu minorities. Important denominations include the African Synchistic, Calvinist Dutch Reformed Church, Roman Catholic, Methodist, Lutheran, Presbyterian and Anglican Churches (Ember & Ember, 2001: 2059).

Table 57 TB hospital patients' views of hospitals' infrastructure and facilities (n), 2001/2002

ASPECT	HOSPITAL	VERY SATISFIED	SATISFIED	UNCERTAIN	DISSATISFIED	VERY DISSATISFIED	TOTAL
Distance to home	Santoord Hospital	11	2	-	4	38	55
	Public hospitals	21	1	-	3	10	35
General appearance of the hospital	Santoord Hospital	9	16	-	-	30	55
	Public hospitals	25	3	-	4	3	35
Sleeping arrangements	Santoord Hospital*	16	14	-	1	23	54
	Public hospitals*	23	1	-	5	5	34
Bathroom/toilet facilities	Santoord Hospital**	15	12	-	-	26	53
	Public hospitals	24	1	-	3	7	35
Privacy	Santoord Hospital**	8	5	2	8	30	53
	Public hospitals	23	-	1	3	8	35
Hospital clothes	Santoord Hospital	21	12	-	2	20	55
	Public hospitals	23	2	-	1	9	35
Blankets	Santoord Hospital	31	8	-	2	14	55
	Public hospitals	24	2	-	-	9	35
Recreational facilities	Santoord Hospital	10	4	1	5	35	55
	Public hospitals	6	1	5	2	21	35
Training/work programmes	Santoord Hospital	15	5	1	6	28	55
	Public hospitals	4	2	6	2	21	35
Opportunity to express your culture and beliefs	Santoord Hospital	9	4	1	15	26	55
	Public hospitals	13	2	7	2	11	35
Opportunity to practise your religion	Santoord Hospital	15	4	2	14	20	55
	Public hospitals	16	1	7	3	8	35
Safety	Santoord Hospital	34	7	-	-	14	55
	Public hospitals	25	3	1	2	4	35

* Missing data (n=1).

** Missing data (n=2).

10. TB hospital patients' views of the quality of care

Santoord Hospital was, what Kurtz & Chalfant (1984: 199) terms, a '*speciality*' hospital. According to the authors there was an 85% decline in TB speciality hospitals in the United States of America over the period 1963-1978. This decline reflected a general tendency that favoured the treatment of chronic conditions in general hospitals. The decline may also have been the result of a tendency to treat chronic conditions outside hospitals in the context of community care. Chapter 5 (Paragraph 3.4) reports the observation of the South African Inpatient Care Team in 2003 that the Free State was not the only province that no longer had a SANTA hospital (North West, Limpopo, and the Northern Cape also did not). Was poor quality of care a contributing factor in the demise of SANTA hospitals? The patient survey at Santoord Hospital does suggest that this was the case. The only compliment that the majority of Santoord Hospital patients (n=40/73%) attributed to the institution

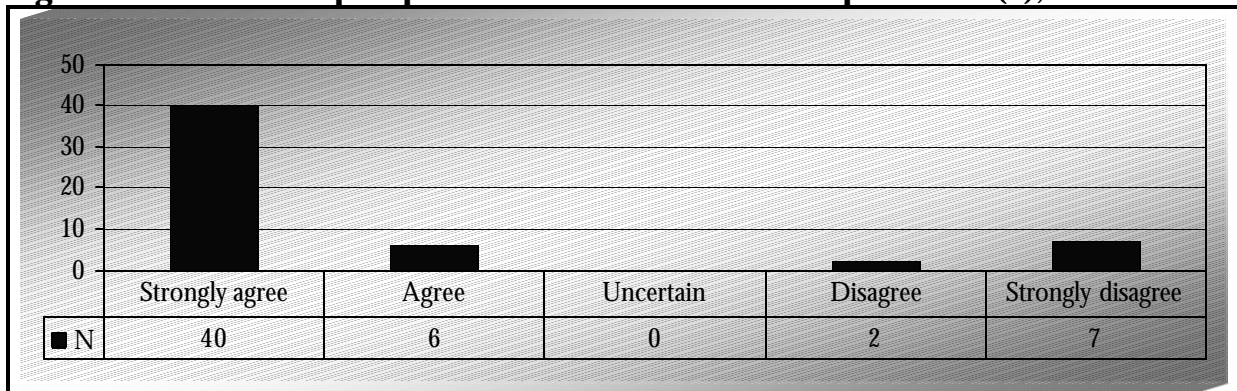
was that the medicine they required was available (Table 58). In this respect a far smaller majority of public TB hospital patients were satisfied or very satisfied (n=18/51%). Most Santoord Hospital patients (n=28/51%) were dissatisfied or very dissatisfied with the quantity of the food they received. It was to the credit of public TB hospitals that almost three-quarters (n=25/71%) of the respondents were satisfied or, more commonly very satisfied, with the quantity of the food they received. Further credit to public hospitals in the sample was also due, because their patients were mostly (n=20/57%) satisfied or very satisfied with the TB health education they received. In contrast, only four in ten (n=21/38%) Santoord Hospital patients were satisfied or very satisfied with the health education.

Table 58 TB hospital patients' views of the quality of the care they receive (n), 2001/2002

ASPECT	HOSPITAL	VERY SATISFIED	SATISFIED	UNCERTAIN	DISSATISFIED	VERY DISSATISFIED	TOTAL
Education about TB	Santoord Hospital	18	3	-	4	30	55
	Public hospitals	19	1	-	1	14	35
Availability of medicine	Santoord Hospital	38	2	1	2	12	55
	Public hospitals	16	2	14	-	3	35
Quantity of the food	Santoord Hospital	24	3	-	4	24	55
	Public hospitals	24	1	-	2	8	35

Experience of health improvement/deterioration

In further attempt to gauge the quality of health care provided by Santoord Hospital, patients were asked whether they experienced health improvement while in hospital. Their agreement/disagreement with the following statement was tested: "*I believe I am getting well as a result of my treatment at this hospital.*" Figure 11 indicates that the majority of patients (n=46/84%) indeed felt that this was the case. Of course, as indicated in Table 56, many of the Santoord Hospital patients had during the interviews (already before the question currently under discussion) stated that they viewed their hospitalisation as unnecessary, and could thus hardly now state that their health was not improving.

Figure 11 Santoord Hospital patients' views of their health improvement (n), 2001/2002

Similarly, Table 59 shows that the large majority (n=46/84%) of Santoord Hospital patients thought that their health was better or much better by the time they were interviewed than when they first arrived at the hospital. These patients also mostly (n=35/64%) stated that they experienced better or much better health than one year before. In effect the Santoord Hospital patients were saying: *“I am well ... so, why I am I still incarcerated at this hospital?”*

Table 59 Santoord Hospital patients' views of their current health in relation to when they first arrived at the hospital and to one year before (n), 2001/2002

RATING OF CURRENT HEALTH	MUCH WORSE	WORSE	ABOUT THE SAME	BETTER	MUCH BETTER	TOTAL
Compared to when first arriving at the hospital	2	1	6	15	31	55
Compared to one year ago	12	5	3	14	21	55

11. Aspects of long-term hospitalisation at Santoord Hospital

Duration of admission

Guerrin (1966: 37) pointed out that TB hospitals (like the Glenn Dale Hospital in Glenn Dale, United States of America) were unlike general hospitals in that all of the patients had the same disease. At TB hospitals treatment programmes tended to proceed over established routes and were administered by staff whose professional abilities were applied almost exclusively to the treatment of this single disease. TB patients were likely to remain hospitalised for a long time, and in this respect TB hospitals resembled other long-term treatment institutions such as mental hospitals. Singleton *et al.* (1997: 838) found that the length of stay at a TB treatment unit at a Massachusetts hospital between 1990 and 1995 ranged from seven to 656 days with a mean length of stay of 120 days. In Tarrant County the Health Department between 1980 and 1994 showed that DOT shortened

hospitalisation from 55 days under traditional therapy to 26 days under DOT (Weis *et al.*, 1999)

At Santoord Hospital, which accommodated exclusively TB patients, the length of stay of patients interviewed in October-November 2001 (on the day of the fieldwork) ranged from ten to 375 days (Table 60).¹⁶⁶ The mean length of stay at that stage was 125 days.

Table 60 Duration of Santoord Hospital patients' admission (mean and range), 2001/2002

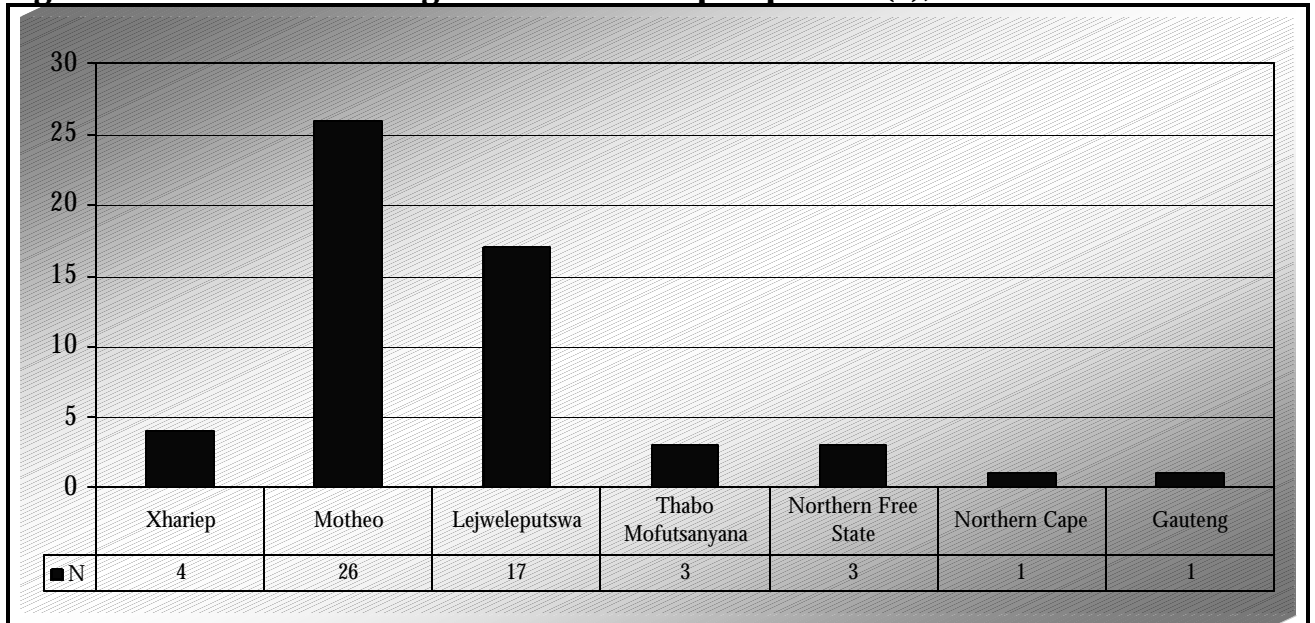
DENOMINATOR		NUMBER OF DAYS SINCE ADMISSION
\bar{x} (n=52)		125
Range	Shortest	10
	Longest	375

Health district of origin

The observation of Dr. A. Oosthuyzen that Santoord Hospital catered mostly for the southern parts of the Free State¹⁶⁷ was to some extent affirmed during the patient survey at Santoord Hospital. More accurately Santoord Hospital catered mainly for the southern and central parts of the Free State:– 43 (78%) patients originated from Motheo and Lejweleputswa (Figure 12). Northern Free State (n=3/5%), Thabo Mofutsanyana (n=3/5%) and Xhariep (n=4/7%) were represented in the sample in almost equally small numbers. Single respondents from respectively Gauteng and the Northern Cape were also noted.

¹⁶⁶ Anecdotally, a female patient had been at the hospital for more over three years. As she was not selected as part of the sample, this could not be confirmed in the interviews. Seemingly, this woman, although registered as a TB patient and although her 'intramural' hospital care was paid for by the Free State Department of Health, actually regularly 'worked' in Santoord Hospital's offices as a general cleaner.

¹⁶⁷ See Chapter 2 (Paragraph 3.3).

Figure 12 Health district of origin of Santoord Hospital patients (n), 2001/2002**Distance from home**

Provision of TB treatment close to a patient's home has been found to have a beneficial effect on TB control in Uganda (Nuwaha, 1999: 81). Similarly, Vietnam TB patients identified the long distance to the TB hospital as a contributing factor to non-adherence to and interruption of treatment (Johansson *et al.*, 1996: 182). In the current study Santoord Hospital patients were found to be situated 156 kilometres, on average, from home (Table 61). The sampled patient closest to home came directly from Thaba Nchu (22 kilometres south of Santoord Hospital). The patient furthest from home came from Katlehong, Johannesburg (505 kilometres north of Thaba Nchu). As reported in Chapter 5, both health workers/managers and Santoord Hospital patients' visitors often experienced the distant location of Santoord Hospital as problematic.

Table 61 Distance of patients' homes from Santoord Hospital (mean and range), 2001/2002

DENOMINATOR		DISTANCE IN KILOMETRES
\bar{x} (n=55)		156
Range	Shortest	22
	Longest	505

12. TB hospital patients' adherence to treatment

The '*perennial compliance problem*' lies at the heart of the persistent social theory question of '*individual agency*' or '*structural constraint*': "*How is a patient's 'compliance' to be understood: as individual action, as a response to social circumstances or cultural background, or as effect of structural factors and pressures, including access to treatment?*" (Farmer & Nardell, 1998: 1014). Adherence to TB treatment is a global conundrum.

TB treatment defaulting in the United States of America

Discontinued or irregular chemotherapy provides patients with insufficient medication to eradicate *M.tuberculosis*. Ingestion of some, but not all, drugs in a multidrug regimen enhances the chances of acquiring drug-resistance and incurability of the disease (Rubel & Garro, 1992: 5). The authors stated that in the United States of America, although the acclaimed short-course (6-month) chemotherapy for TB was developed to alleviate the problem of non-adherence, significant proportions of patients with active TB still absconded from treatment before the end of six months. Often about one half of these patients interrupted their treatment, and many, in fact, left treatment so early that they failed to receive any benefit whatsoever.

The endeavour to retain more patients in treatment, and the search for new combinations of medicine to ease disease control, lie at the very core of the biomedical institution. Investigation of patients' preferred modes of treatment or of their understanding of the disease and how this encourages or discourages the seeking of biomedical care, does not: "*Because delivery of health care is governed by time honored traditions learned during professional training and supported by programmatic norms ... efforts to modify attitudes and behaviour of clinical staff members often meet with resistance*". To illustrate this problem Rubel & Garro discussed Curry's findings at Chest Clinic (San Francisco General Hospital) where in 1996 more than one-quarter of TB patients were not meeting their treatment appointments. The approach was to, firstly, interview hospital staff to ascertain their assessment of the problem. Curry found that the staff attributed irregular attendance to the social and cultural characteristics of the user population: '*elderly patients, workers, skid row alcoholics, the uneducated or ignorant, and those with a language barrier such as the Chinese and Latin Americans.*' The health workers claimed that such patients failed to attend Chest Clinic as regularly as other groups. The methodology, secondly, also included a patient survey. Chest Clinic patients forwarded altogether different reasons for missed appointments (Rubel & Garro, 1992: 5): inconvenient clinic open hours and location; '*registration repeated at each visit*;

'rigidity in taking patients in order of registration regardless of extenuating circumstances'; overcrowding and poor ventilation in the clinic; 'skid row alcoholics seated next to mothers with small children'; punitive staff practices; doctors using medical/technical terminology beyond the comprehension of patients; doctors who could not converse with patients in their own language; no specific physician in charge of patients; and 'families not treated as a unit, but children and adults usually seen by different physicians on different days'.

The largely contradictory results of the two surveys led to decisions to reorganise clinic services, decentralise staff into district teams, and to make them available in the neighbourhoods where patients lived and at times suiting patients' work schedules. In-service education to inform staff of patients' points of view and the implications thereof, took place. According to Rubel & Garro (1992: 5) these interventions (which were based on consideration of patients' social lives and cultural expectations), decreased missed appointments for TB treatment from 26% to 4%.

Stigmatisation and TB treatment defaulting

Goffman argued that a stigma is a *'relationship of devaluation'* in which one individual (perhaps because of physical deformity) is disqualified from full social acceptance by another. Stigma may be retrospective and applies to someone's perceived *'non-conformist'*, *'degenerate'* or simply *'different'* behaviour. In the health context, stigma very often applies to patients with infectious diseases.

Inherent in the process of stigmatisation is the issue of social control. By stigmatising patients society tries to control their actions. So, for example, alcoholics and drug addicts are stigmatised as having a weak character or disposition. Simply being ill can attract a patronising attitude. Thus patients are often ignored when seeking to clarify information regarding their condition or treatment. This results from the bureaucratic nature of the hospital as institution: it seeks to streamline treatment and medical dominance in a way that allows health workers to control patients.

Steyn & Van Rensburg (1987: 81) explained Goffman's viewpoint that a human being has a stake in the forming of a situation through carrying into it symbolic meanings which will be to his/her advantage. During interaction these meanings are conveyed by verbal systems and body language intended to control others' definition of the situation. In hospitals patients are thwarted in this endeavour by the stigmas attached to them and which differentiate them from *'normal'* persons.

Farmer (1997: 349) described the emergence of MDRTB, and its associated adherence issues, as *'thorny'* from the perspective of a host of socio-medical disciplines. According to Sumartojo (cited in Farmer 1997: 349), the word *'compliant'* itself, *'has the unfortunate connotation that the patient is docile and subservient to the provider'*. For Farmer even more unfortunate was that the term exaggerated *'patient agency'*, since it implied that all patients possessed the ability to comply or not to comply with chemotherapy: *"This makes no sense, if the World Health Organization is correct, as many as half of all cases of active TB are never diagnosed. Experience across the boundaries of time and place have shown that there are radical differences in the ability of different populations to comply with demanding therapies, whether they be admonitions to move to 'consumptive climes', as in the past century, or exhortations to take a year's worth of several drugs."* Farmer (1997: 349) emphasised that the poor had no option but to be at greater risk for TB and thus from the outset were *'victims of structural violence'*. In South Africa the structural forces at play included both poverty and racism, but around the world increased indices of economic and social inequality favoured epidemics among the poor (who were already ravaged by such problems as AIDS, overcrowding, dispossession, political violence and war).

13. Santoord Hospital patients' adherence to treatment

How might the adherence of TB patients to their treatment at Santoord Hospital be described? During face-to-face interviews in their own language these patients were asked if they had ever forgotten to take their medication. Only two (4%) patients answered affirmatively. When asked what the reason for this omission had been, one stated that he was asleep when the nurse brought the medicine, while the other *'just forgot'*. Santoord Hospital patients were also asked outright: *"Have you ever purposely refrained from taking you medication?"* Again, only two respondents asserted that they had. Both these Santoord Hospital patients cited the side-effects of the TB treatment as the reason for their behaviour.

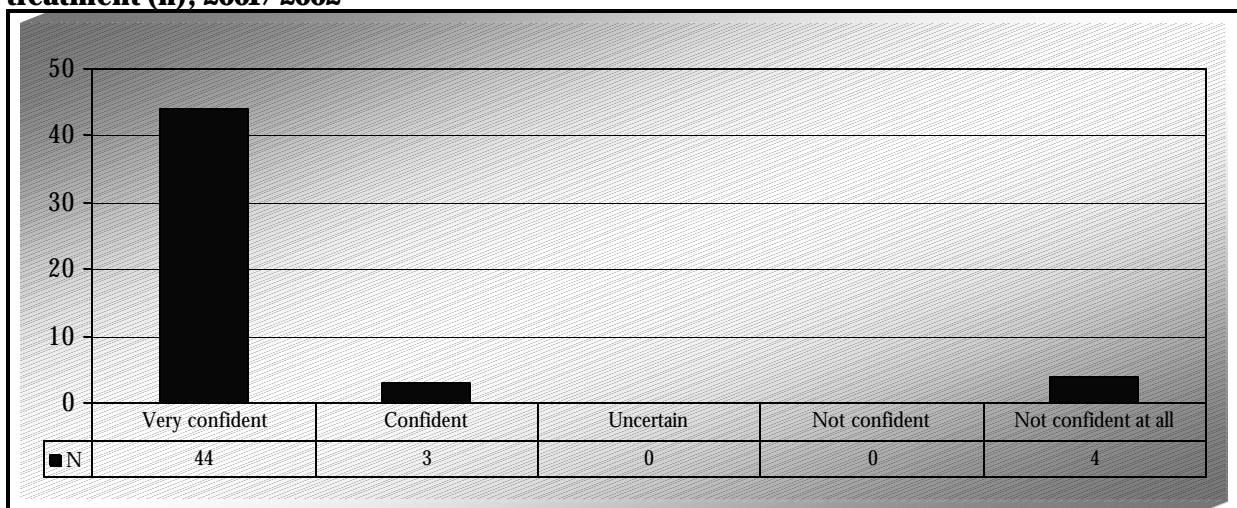
Asked what side-effects of or discomfort/illness due to TB treatment they experienced at Santoord Hospital, close to three-quarters of the patients (n=40/73%) said they did not experience any. The largest proportion of the remainder of the patients mentioned vomiting or stomach aches (n=4). The other most often experienced side-effect of TB treatment was reported to be *'dizziness'* (n=3). The

following side-effects were mentioned (each by one respondent only): eye pain, hearing problems, 'pain in face', skin rash, confusion, weakness, swollen feet and hands, and breathing problems.

Confidence in ability to complete TB treatment

Despite the above-mentioned side-effects mentioned by some Santoord Hospital patients, the patient survey in October-November 2001 revealed that the large majority (n=47/92%) patients maintained self-confidence in their ability to see their treatment through, and were even very confident (Figure 13). On the other side of spectrum, four (8%) respondents expressed total despondency. They stated that they were not at all confident that they would complete their treatment.

Figure 13 Santoord Hospital patients' anticipations of whether they will complete their treatment (n), 2001/2002*



* Missing data (n=4).

Absconding from hospital

Santoord Hospital patients were asked if they ever left Santoord Hospital (or any other hospital) where they were undergoing TB treatment without being officially discharged or granted leave of absence by the hospital. Five patients (9%) answered affirmatively. All of these patients reported that this had happened only once. All were reportedly back in hospital within five months. In fact, one 'absconder' was back within one week and another within one month. Two of the patients stated that they found ways to continue taking their TB treatment while absconding. Respectively, each of the five patients who had absconded from intramural TB care provided one of the following reasons for

their absconding: ‘*the person looking after my house had damaged it*’, ‘*I needed to see my children*’; ‘*I thought I was cured*’; ‘*it was my father’s funeral*’; and ‘*there was not enough food at the hospital*’.

When asked how their health was affected by their absconding from hospital, four of the patients admitted that their health deteriorated. One, perhaps ironically, stated that her health had improved. She claimed that she completed her treatment at a clinic. The five ‘*absconders*’ were also asked what they did while absconding. Two stated that they sought employment. One actually went back to work and another attended a funeral. One stated that he did ‘*nothing*’.

What made these patients return to hospital? Respectively, judging from their verbatim responses in at least three of the five cases, it was not their own decision: “*I became very ill*” (n=2), ‘*the ‘tleneniki*’¹⁶⁸ *ordered it*” (n=1), ‘*my employer sent me back*’ (n=1), and ‘*my father forced me to return*’ (n=1).

The hospital patient survey also set out to establish how absconding patients were received back at hospital. Three of the five patients stated that they were ‘*welcomed*’. One said that the hospital staff were angry with him and even refused to treat him for a while. Astoundingly, the other was reportedly told by (Santoord Hospital) staff to ‘*keep quiet*’ about having absconded.

14. Negative experiences of Santoord Hospital patients

The dehumanising effect of hospitalisation has long been a concern. Peabody (1927: 2) observed that hospitals, although ‘*founded with the highest human ideals*’, were apt to deteriorate into ‘*dehumanised machines*’. Pressure of work meant that physicians gave most of their attention to the critically sick and those whose diseases were a ‘*menace to public health*’. The physician's first priority was to treat the specific disease and there remained little time to cultivate more than a superficial personal contact with the patient: “*Moreover, the circumstances under which the physician sees the patient are not wholly favourable to the establishment of the intimate relationship that exists in private practice, for one of the outstanding features of hospitalization is that it completely removes the patient from his accustomed environment. This may, of course, be entirely desirable, and one of the main reasons for sending a person to hospital is to get him away from home surroundings, which, be he rich or poor, are often unfavourable to recovery; but at the same time it is equally important*

¹⁶⁸ ‘*Tleneniki*’ is Sesotho for ‘*clinic*’ (Jennings *et al.*, 1995: 31).

for the physician to know the exact character of those surroundings” (Peabody, 1927: 2-3).

Non-response from 37 (67%) Santoord Hospital patients were the case when they were asked to mention any other problematic aspect of their hospitalisation in the final section of the interview. Among those eighteen patients who at the end of the one-hour long interview still mustered up a response, each of the following problems were respectively mentioned by two respondents: ‘*too few nurses*’, ‘*I have no idea how long I have to stay here*’, ‘*we get no information on how to get a government grant*’, ‘*we are treated like prisoners*’, ‘*we may not use the phones*’ and ‘*we do not receive supplementary food/struggle to eat*’. Respectively one respondent mentioned the following problems: ‘*there is no treatment for side effects*’, ‘*[staff members] are unprofessional*’, ‘*I am bored here*’, ‘*new patients are placed with old patients*’, ‘*the sister sabotages our applications for grants*’, and ‘*we do not get pass-outs*’.

15. Positive experiences of Santoord Hospital patients

Quite frankly, the patient survey did not reveal much information for inclusion under this heading. At the end of the interview Santoord Hospital patients were asked to mention any (other) positive aspect of their hospitalisation. Responses were solicited from only three of the 55 patients. Moreover, at least two of these three of these responses probably reflected more on the concerned patients’ personal plight than on Santoord Hospital as such: ‘*my condition improved*’, ‘*I will recover*’, and ‘*I have confidence in the treatment*’.

16. Prospects for the future as perceived by Santoord Hospital patients

Finally, the hospital patient survey at Santoord Hospital during October-November 2001 requested of patients to state how they saw their future and what their plans for the future were. Table 62 categorises the responses obtained in ‘*positive*’ (n=32/58%), ‘*uncertain*’ (n=14/25%) and ‘*negative*’ (n=9/16%) categories. Thus, the majority of these patients were (cautiously) optimistic about the future. Within the positive category most of the optimism related to looking forward to a (re-established) work and family life. A single respondent looked forward to a more ‘*aesthetic*’¹⁶⁹ lifestyle

¹⁶⁹ ‘*Aestheticism*’ is derived from the Greek ‘*aisthetikos*’ and was defined as a ‘*set of principles of good taste and appreciation of beauty*’ (Sykes, 1982: 15). ‘*Asceticism*’ as ‘*a lifestyle marked by rejection of sensual pleasure, particularly with the idea to strive for a*

in the interest of his health. Those Santoord Hospital patients who were uncertain mostly dubiously reckoned on government support in the form of a grant. Their uncertainty was probably the result of the unfortunate situation at Santoord Hospital regarding a lack of information about such grants and, reportedly, even of a health worker 'sabotaging' grants. Negative future outlooks reported by Santoord Hospital patients related to gloomy visions of sustained poor health, inability to work or retrieve a former position, and general despondency¹⁷⁰: "I am going to die."

Table 62 Santoord Hospital patients' future prospects (n), 2001/2002

PROSPECTS	N
<p style="text-align: center;">Positive</p> <p>Work/family-related: 'want to work and look after my family' (n=12). Family-related: 'going to be healed and united with my family', 'give my children an education' and 'get married and start a family' (n=8). Generally positive: 'see a bright future' and 'build house' (n=6). Work-related: 'want to open a business', 'get a light job' and 'finish studies' (n=5). Health-related: 'stay away from alcohol and cigarettes' (n=1).</p>	32
<p style="text-align: center;">Uncertain</p> <p>Reliant on government: 'will apply for government grant' (n=9). Generally uncertain: 'future is uncertain', 'no plans', and 'too confused' (n=5).</p>	14
<p style="text-align: center;">Negative</p> <p>Health-related: 'will not heal completely' and 'cannot walk again' (n=5). Work-related: 'cannot work' and 'lost job' (n=3). Generally negative: 'I have no future', 'I'm going to die' and 'I have AIDS' (n=1).</p>	9
Total	55

17. Summary

A common perception in South Africa is that public hospitals are overstressed, understaffed and are struggling to deal with the needs of a majority of the population that was under-serviced during white minority rule. Into this scenario enters a Free State TB patient stating: "I feel very old in my body." It is necessary to consider the patient's perspective in disease management via hospitals. Individual patients must be the ultimate judges of their own health. For the larger Joint Free State TB Research Project it was important to determine health outcomes by asking patients about their views and

higher moral or religious idea' (Plug *et al.*, 1988: 29). Schoonees *et al.* (1970: 280) provided a more elaborate definition: "A contemplation or learning that a person can do away with all sensual pleasure and wants through self-denial and self-martyrdom and thereby can heighten his intellectual and spiritual life to an extraordinary elevated level" (translated from Afrikaans).

¹⁷⁰ In 1933 A.D. Keet described despondency poetically (cited in Opperman, 1973:92):

"O, ek is moeg van al die uitgestane,
 En ek is sat van bittere dwang -
 Ek soek my heil in ingehoue trane,
 Dae, nágte lang"

experiences of health services such as the now defunct (NGO) Santoord Hospital. At the time of the TB hospital patient survey (October 2001-March 2002) it was also necessary to understand the reception of these patients in a newly invigorated district health system and public (district) hospitals.

The fieldwork (face-to-face interviews in patients' home language) took place in the three study areas of the Joint Free State TB Research Project: Welkom/Thabong, Phuthaditjhaba and Thaba Nchu. A total of 90 TB hospital patients were interviewed to solicit their views and experiences of hospitalisation for TB. The sample was comprised, firstly, of 55 TB patients from Santoord Hospital. It was comprised, secondly, of 35 TB patients from six public hospitals: Dr. J.S. Moroka Hospital, Mofumahadi Manapo Mopeli Hospital, Elizabeth Ross Hospital, Odendaalsrus Hospital, Virginia Hospital and Goldfields Hospital. A limitation experienced in sampling patients at public hospitals was that these hospitals were not reporting institutions in respect of TB. This meant that none of the selected hospitals could provide any kind of official document to serve as sampling framework. Discussions with health managers at each of the hospitals showed that between six and ten confirmed adult (15 years and older) PTB cases were hospitalised at the time of the fieldwork. Half of all such cases were sampled randomly.

Chapter 6 commences with a description of TB hospital patients' background, and their and their families' socio-economic status as affected by TB and hospitalisation. A portrayal of their health beliefs, knowledge of TB, first symptoms of the disease and health seeking behaviour follows. Thereafter, the chapter deliberates their admission to and (health) education at hospitals. Social and health worker support and stigmatisation of TB hospital patients are subsequently assessed. Next, TB hospital patients' views of the necessity of their hospitalisation and the quality of hospitals' infrastructure and care, are elucidated. The chapter discusses aspects of long-term hospitalisation, including the distant location of Santoord Hospital from patients' homes. TB hospital patients' adherence to their treatment and their absconding from hospital care next comes under the loop. The chapter takes cognisance of TB hospital patients' negative and positive experiences and, finally, considers their prospects for the future.

The hospital patient survey data were captured and analysed through the use of *SPSS 11.0*. Particular use was made of open-ended questions that would solicit the views and experiences of patients without their being distracted by pre-conceived ideas of the researcher and the fieldwork team of Mr.

Z. Matebesi. A fraction of the data was lost through non-response by interviewees. The tables and figures displayed in the chapter indicate these instances as 'missing data'.

The socio-economic profile of Free State TB hospital patients in 2001 may be depicted in the following succinct profile:

- They originated mainly from towns and farms rather than cities.
- They were mostly male, in their late thirties of age, unmarried and functionally literate.
- At home they lived mostly in formal housing, even though these homes were often overcrowded and poorly ventilated.
- They sometimes shared their households with migrant labourers and other people who also suffered from TB.
- Although often unemployed and poor, this was exacerbated by their falling ill with TB and being hospitalised. Between eight and nine in ten TB hospital patients were unemployed while in hospital. Even so, and even although on average they earned less than R300 per month, qualifying for government grants was experienced as arduous and even to be thwarted by hospital staff.
- Nevertheless, most patients felt that they had positive employment and income generation prospects for the future.

With reference to their health beliefs, knowledge of TB, first symptoms and health-seeking behaviour the following could be remarked about TB hospital patients in 2001:

- Only about one in every four patients offered a '*Western-medical*' explanation of the disease. Nevertheless, they were reluctant to disclose any traditional (non-Western) beliefs about the cause of their illness and how to become cured.
- Only about half the patients first presented to a PHC clinic when falling ill with TB. Some patients went directly to a public hospital.
- The majority of patients were hospitalised for TB more than once. To some extent hospitalisation for TB was a perennial experience.

Regarding their admission to hospital and their (health) education there, Santoord Hospital patients were less inclined to experience nurses and doctors positively than public hospital patients. There seemed to be an ethos at Santoord hospital for patients to form a '*self-help*' group and to fend for themselves rather than depend on staff. In fact, the research revealed some evidence that Santoord Hospital patients experienced stigmatisation at the hands of nurses and doctors. Many TB hospital

patients denied having been educated on TB-related issues crucial to amicable hospitalisation for and control of the disease. Nevertheless, the patients were mostly indisposed to appear unable to grasp the content of that education they did undergo.

Stigmatisation of TB was reported by patients to extend beyond the confines of hospitals and to feature also in their community and family lives, and even their relationships with their life partners. Only their children, TB hospital patients said, were unconditionally supportive of their plight.

The survey unequivocally shows that public hospital staff, as public hospitals generally, were more appreciated by patients than Santoord Hospital staff and Santoord Hospital as such. It should be recalled from Chapter 5 that this was also the inclination of Free State health workers and managers. The current research can thus not other than affirm the Free State Department of Health's decision to close down Santoord Hospital. Evidence to date is that public hospitals simply fare better and act more humanely in the provision of intramural care for TB. At least public hospitals avail physicians to add force to the fight against TB.

It was not that (all) Santoord Hospital patients did not want to be hospitalised. Rather they just did not want to be hospitalised at Santoord Hospital. Here they were mostly dissatisfied with being far from home and having little privacy and limited opportunity to express their culture or engage in recreation during a lengthy 125 days of incarceration. While Santoord Hospital patients appreciated the availability of the drugs they required at Santoord Hospital, and the fact that their health (reportedly) improved, during the interviews they also strongly protested against stigmatisation and poor health care that they experienced at this NGO hospital. Nevertheless, they were confident in their own ability to see their TB treatment through.

The survey did not realise a large enough sample of TB hospital *'defaulters'* to widely record the motivations for and nature of the actual *'absconding'* experience. The small group of patients who admitted such behaviour suggested that their actions (including their return to the hospital) were prompted by such (external) factors as the needs and *'demands'* of their families. Generally, patients were loath to report any positive experience of Santoord Hospital, and eager to resume their work and family lives, albeit then under the care of public (district) hospitals and PHC clinics.

Chapter 6 cannot claim that hospitalisation for TB is ever pleasant for the patient. Even in the most humane and well-resourced (public) hospital, hospitalisation for TB will be traumatic and even dehumanising. Now that district hospitals and the new MDR-unit in the Free State have taken on the burden for TB hospitalisation, future research should be directed towards understanding of the patient experience in the public sector. In addition to suggesting recommendations for future (social and health systems) research in respect to hospitalisation for TB, Chapter 7 delineates recommendations to ensure more amicable management of TB hospitalisation.

Chapter 7 Summary: findings and recommendations

“The true test of our devotion to freedom is just beginning” (Mandela, 1995: 751).

1. Introduction

Why is it necessary to study the social and health systems aspects of a disease that today continues to flourish a century after the discovery of the causal organism and more than 50 years after effective chemotherapy became available? In line with the democratic ideals of the new South Africa, the country must see to the amicable care of vulnerable and unfortunate citizens; e.g. the TB patient. Arguably, among TB patients at large, hospitalised patients are those hardest hit by the epidemic. Certainly, if incarcerated in hospitals, such as the former Santoord Hospital, such patients' life conditions fell far short of Nelson Mandela's ideals of real freedom for all South Africans. This study contemplates the plight of TB hospital patients based on research conducted over the period 2001-2003 in the Free State; i.e. some six years after democratisation and the first free election.

The daunting challenge of the dual TB and HIV/AIDS pandemic is mirrored in the challenges of positioning and tailoring the hospital sector in the new democratic South Africa. The country has a population of less than 50 million, yet it has/had many more alive/dead HIV-positive citizens than Europe, Canada and the U.S. with their combined population of ± 500 million. In 2000, the TB burden for South Africa was estimated at 600 total cases per 100 000 population, with ± 270 000 new TB cases per annum, of whom ± 110 000 were infectious and $\pm 47\%$ also HIV-positive.

A great many of these TB patients, not least those who develop MDRTB, require hospital care. Yet, rather abruptly, over the period 1997-2001, the Free State effectively closed down private and NGO facilities for intramural TB treatment. Hospitalisation for TB in the state-aided hospital sector in the Free State has been completely done away with and has been replaced with a new arrangement in which public hospitals, especially district hospitals, have to take up this burden. These hospitals do so amid a predominantly ambulatory health care system for TB and in a context where almost half of TB patients simultaneously suffer from HIV/AIDS.

2. Research problem and methods

As noted in Chapter 1, the current research is part of a larger, multidisciplinary and intervention-driven project, i.e. the Joint Free State TB Research Project. Within the ambit of the larger project the current study is amongst those underscoring the notion that social and health systems research of TB control is necessary and useful. Chapter 1 outlines the demography of the population of the Free State and that respectively of the three study areas, Welkom/Thabong, Phuthaditjhaba/Qwaqwa and Thaba Nchu, where the collective research and intervention efforts of the Joint Free State TB Research Project were concentrated. Each of the study areas is marked by abject socio-economic conditions. Both TB and HIV/AIDS thrive under these conditions.

Chapter 1 further delineates the research design of the current study against the backdrop of the larger project. The research problem of the current study is specified in terms of five key research questions, each addressed in a subsequent chapter (Table 63). Chapter 1 also explains the broad methodology and the measures taken to conduct this research in an ethically acceptable manner. In respect to the five research questions respectively addressed in Chapter 2-6, the methods that were applied to collect information and empirical data are briefly noted in Table 63.

Table 63 Research questions and succinct methodologies by chapter

CHAPTER	RESEARCH QUESTION	METHODS
2	How may the historic role of the hospital in TB control be described, and what social critique has been levelled towards this institution?	Literature was studied to reconstruct the global, South African and Free State histories of hospitalisation for TB. Information was also gathered through unstructured face-to-face interviews with the SANTA CEO (October 2003); the Free State SANTA branch manager (November 2001); and, respectively, the Santoord Hospital centre supervisor and matron (November 2001).
3	What is the nature and impact of broader health sector reform on TB hospital policy and the emergence of district hospitals' and the MDR-unit's role in the management of TB patients?	An overview of the literature was conducted to consider the impact of changing health care policy in the South African health care system on hospitalisation for TB. Specifically, the literature was studied to contemplate the context of an evolving DHS and need to functionally integrate the district hospital into the DHS. International, South African and Free State policies with reference to hospitalisation for TB were also examined.
4	How may the declining practice of intramural care for TB patients in state-aided private and NGO hospitals in the Free State be assessed?	Unstructured, face-to-face interviews were conducted with strategic informants who had working experience or who were actually working at the former (Lifecare) Allanridge Chest and (SANTA) Santoord hospitals. In respect to Allanridge Chest Hospital, a state-aided private-for-profit institution, interviews took place with the Director Medical Services (Lifecare Group Holdings) and with a former medical officer. With reference to Santoord Hospital, in addition to the above-mentioned interviews (with SANTA officials to gather information to answer the first research question), the Contracting-out study (1996) of the CHSR&D was reviewed.
5	How may hospital policy and institutional arrangements for the hospitalisation of TB in the Free State be appraised from the perspective of health workers and managers?	Self-administered questionnaires and face-to-face interviewing took place to solicit the views of health workers and managers on how to hospitalise in the interest of TB control. The former method was applied to gather data from health providers at the research feedback workshops of the Joint Free State TB Research Project in May 2002. Most of these individuals were engaged in the practice of TB control at the facility level. The latter method was used to gather data among health managers at the district and provincial levels in November 2001 and again in October-November 2003. Interviews with managers at the national level took place in November 2003.
6	How do TB patients themselves experience hospitalisation in the Free State?	A total of 90 TB hospital patients (61 males and 29 females) were interviewed in their home language through the application of a structured interview schedule. Patients from Santoord Hospital (n=55) and from the following public hospitals were represented in the sample: Dr. J.S Moroka, Elizabeth Ross, Goldfields (now Bongani), Mofumahadi Manapo Mopeli, Odendaalsrus and Virginia (n=35).

3. Findings

Validation of the results of the Joint Free State TB Research Project took place via fourteen presentations: seven in the health districts of the Free State, two at the provincial level, one at a

national conference and four at seminars/congresses abroad. The research feedback was directed, especially, towards health managers/workers at the facility, district, provincial and national levels. The conference ‘*Tuberculosis - a multidisciplinary approach to research, policy and practice*’ hosted at the University of the Free State (Bloemfontein, 11-12 November) was marked by frank interchange between the health system research and practitioner communities. This conference was the highlight of the Joint Free State TB Research Project.¹⁷¹

Succinctly, the main research findings, and answers to the five research questions, are the following:

3.1 How may the historic role of the hospital in TB control be described, and what social critique has been levelled towards this institution?

Hospitals, in addition to their function in the health care system, have social roles and should be assessed as such. Discordance, however, exists as to whether hospitalisation for TB in the multitude of forms it took historically really been beneficial in the fight against the epidemic. Hospitalisation of TB patients inevitably implies their isolation from society and this raises questions as to the necessity, the morality, and also the effectiveness of this practice. Particularly from the work of the social theorists Goffman and Foucault stringent critique has been levelled towards the hospital as an institution: it is an institution that exerts grotesque social control over the individual, i.e. in the form of and with the consequences of a ‘*total institution*’.

Chapter 2 emphasises the changing role of the hospital in attempts to control TB around the world, in South Africa, and in the Free State. The chapter reveals that the history of hospitalisation for TB over two centuries was chequered. Successive scientific advances in TB medicine made hospitalisation much less important. However, even the near revolution of modern chemotherapy for TB did not make hospitalisation completely obsolete.

Chapter 2 states that since hospitalisation of TB patients implied their isolation from society, it was (and still is) a matter of controversy. The sanatorium movement of the Western world lasted for 100 years up to the middle of the previous century. The sanatorium actually represented the basis of TB

¹⁷¹ The presentations of the conference are displayed in the website of the CHSR&D: <http://www.uovs.ac.za/faculties/humanities/chsrd>.

treatment before chemotherapy. Sanatoria were self-contained communities where death was an ever-present characteristic. A therapeutic concept of the curability of TB by open-air living gave rise to sanatoria. The clinical efficacy of sanatoria has been challenged against the background of assessing the relative importance of medical and non-medical factors in the decline of TB in the First World. Historians also challenged whether the isolation of patients in sanatoria was useful in the preclusion of infection. This scepticism flowed from observations that sanatoria did not proliferate until after Koch's discovery of *M.tuberculosis*. Yet mortality from TB began to decline long before then in countries such as Great Britain and the United States of America. Arguments in favour of health authorities' endeavours to hospitalise people with TB resort under Newsholme's pragmatic public health care approach. Arguments against such hospitalisation resort under McKeown's public health nihilism.

In South Africa successive governments have long been concerned with maintaining central control of hospitals. Apartheid resulted in a systematic entrenchment of the colour bar in the hospital sector, thereby contributing cumbersome dimensions to the already fragmented health care system. The past two decades, and particularly the 1990s, saw the systematic dismantling of apartheid in hospitals. This was the start of a process to dismantle discrimination in the organisation of the South African hospital system – a process that is not yet complete.

In respect to state-aided hospitalisation for TB in the Free State, the Contracting-out study of the CHSR&D found that while the contractors in general delivered good value-for-money hospital services, almost half of the TB patients were, in fact, hospitalised unnecessarily. The plight of TB patients with respect to their socio-economic circumstances, especially concerning housing and employment, was disclosed as desperate. It also emerged that hospitalisation at geographically isolated TB institutions had adverse social affects on patients. The total contract costs per patient day was found to compare slightly unfavourably with the marginal costs per patient day for the Free State Department of Health to itself render hospitalisation services for TB patients. It was recommended that the major potential for cost saving lay in a shift from intramural to ambulatory care for that half of the patients with uncomplicated primary infection, and a further reduction in the length of stay of the remaining half, i.e. cases of non-compliance to treatment, re-infection and complications.

Policy makers took the Contracting-out study seriously. Since 1997 the Free State Department of Health is following the international trend of eliminating specialised institutions for intramural TB care. All three such institutions characterising the TB hospital scene in the latter part of the previous century, have been closed down. At least one of these institutions, Santoord Hospital, was suffused with organisational problems and appeared not to be able to adhere to the principles of South Africa's NTCP. The history of non-state sector hospitalisation for TB in the Free State has effectively come to a complete halt.

3.2 What is the nature and impact of broader health sector reform on TB hospital policy and the emergence of district hospitals' and the MDR-unit's role in the management of TB patients?

Chapter 3 relates that health care systems in sub-Saharan African countries have to confront increasingly scarce resources. This quandary constrains these countries' ability to render health care services of an acceptable quality to their peoples. Such inability is exacerbated by the extensive inefficiency of sub-Saharan African health care systems, especially within hospitals. In South Africa, prior to 1994, the health care system was based on apartheid ideology and characterised by racial and geographic disparities, fragmentation, duplication and hospi-centricism with lip service only paid to the PHC approach. Therefore the new Department of Health set out to improve access to health care, advance equity, deal decisively with the HIV/AIDS epidemic, stabilise the hospital sector, and adopt a multidimensional approach to ensure improvement in quality of care.

Chapter 3 explains the impact of changing health care policy in the South Africa on hospitalisation for TB. It is acknowledged that the association between hospitals and PHC is somewhat awkward. Yet it is clear that hospitals have an important role in all of PHC, the DHS and, in TB control. One way of aligning district hospitals with PHC (in its true sense) is to increase the extent of community ownership of and participation in the governance of these hospitals. Chapter 3 addresses the arduous processes required to produce hospital boards of repute, that have significant impact, and that are in accordance with legislative and policy guidelines. Such processes involve substantial education and interaction between the hospital and the community. Hospitals are huge assets of the provincial health departments, and these departments, amidst much greater emphasis on community involvement than under the previous regime, maintain tight control over these facilities.

Following the demonstration of the high potency of chemotherapeutic drugs in ambulatory patients, routine hospitalisation for TB - once a standard management technique for the control of TB patients around the world - had by the late 1980s to a large extent been replaced by ambulatory treatment. Evidence is that TB patients could be cured without ever having to be admitted to hospital. This, however, could suffice only where supervision of ambulatory treatment were of a high standard. The World Health Organisation was in favour of this and recommended that the *'financial resources and manpower available for [TB] control [should be] used to organize efficient and widespread ambulatory programmes rather than support hospital treatment'*. Routine hospitalisation for TB patients was seen to prevent patients from leading socially active lives. Hospitalisation for TB was also thought to create practical and economic problems for both patients and their families, as well as for TB control programmes. The invariably limited inpatient capacity of hospitals was also thought to hinder the expansion of case-finding activities. Importantly, the World Health Organisation (1988: 25) nevertheless acknowledged the need for hospitalisation of TB patients if their clinical status required it, while adding that they should be discharged as soon as they had improved sufficiently to continue treatment as outpatients. Patients in the initial intensive phase of treatment could also be hospitalised if their homes were so far from the health service or so inaccessible that supervision of treatment was unpractical. Finally, special hospital wards for TB patients were not judged necessary, although the location of TB beds in a specific area of the hospital was seen to be advantageous because it could simplify the management of patients, including the full supervision of chemotherapy. The World Health Organisation argued, however, that the need for supervision of chemotherapy in itself did not justify hospitalisation: *"Supervised ambulatory chemotherapy should be organized as the first priority in national [TB] programmes."*

In the Free State the Department of Health and the provincial TB Control Programme are busily implementing the NTCP at both PHC facilities and at district hospitals. In this process the province's policy-makers emphasise the district hospital's (potential) positive role in PHC, the DHS and TB control. Clear admission and discharge criteria for TB patients have been set. Primarily, the district hospital deals with the types of complications that arise in TB management that cannot be effectively dealt with by a PHC facility. In reality this policy places a substantial burden on district hospitals. These hospitals should properly diagnose, treat, educate, support and discharge TB patients. Such patients should also undergo HIV testing on a voluntary and confidential basis. A

proper information system to monitor how well district hospitals in the Free State fare with the hospitalisation of TB patients is in the making. Preliminary assessment suggests variable achievements and limitations. In all fairness, it would seem that most district hospitals are making a serious effort to provide the expected levels and quality of care for TB patients. Once the information system has been fully developed all health workers and managers can be more fully briefed on shortfalls.

When all else fails and patients develop MDRTB, the Free State Department of Health's new MDR-unit at Dr. J.S. Moroka Hospital in Thaba Nchu is in place. The MDR-unit's functioning is regulated by a detailed policy oriented towards both quality of care and to ensure the safety of patients and health workers.

3.3 How may the declining practice of intramural care for TB patients in state-aided private and NGO hospitals in the Free State be assessed?

Chapter 4 describes how the Free State did away with the outsourcing of hospitalisation services for TB to a private company and an NGO. The former (Lifecare) Allanridge Chest Hospital was a province-aided private-for-profit establishment. Like private hospitals generally, it claimed to provide high quality care at a reasonable cost. But, like all private hospitals, it accounted first to its shareholders for its profitability. The former (SANTA) Santoord Hospital was a province-aided health facility that ostensibly operated on a not-for-profit basis. Santoord Hospital became a casualty in the drawn-out national crisis as regards SANTA.

Chapter 4 considers profit making in the South African and Free State non-state hospital sector. The chapter considers growth in the private hospital sector amidst the maintenance of selective and inequitable resource allocation and skewed coverage of those who cannot afford health insurance. The chapter also takes heed of the traumatic media and political commentary on the role of SANTA and postulates that this contributed to the demise of Santoord Hospital.

3.4 How may hospital policy and institutional arrangements for the hospitalisation of TB in the Free State be appraised from the perspective of health workers and managers?

Prevention and control of communicable diseases is one of the basic components of a comprehensive health service. No doubt TB is a great concern (and stressor) to South African health workers and their managers. How best to curtail TB through hospitalisation from the perspective of the health care provider? Chapter 5 reconstructs health workers and managers' views and experiences of the health care system in relation to hospitalisation for TB. To this end, empirical data generated through the researcher's participation in the Joint Free State TB Research Project is presented. This data spans the period 2001-2003. The stances to hospitalisation of strategically placed health workers and managers at the facility, district, provincial and national levels are considered. The research revealed not only a vast array of facility level problems relating to hospitalisation for TB, but also uncertainty about the future. Not only was this a time of uncertainty for the staff of Santoor Hospital, but also for TB control practitioners throughout the province. Moreover, there were clear indications of rivalry between PHC nurses (favoring NTCP guidelines) and (public) hospital-based physicians (much less inclined to follow national policies and procedures). In fact, this problem also reverberated during the interviews with TB control managers at the district, provincial and national levels, as did concerns about the capacity of district hospitals to accommodate growing numbers of TB patients.

Even as recently as October-November 2003 health managers at the district, provincial and national levels were concerned about hospital doctors' understanding of, commitment to, and application of the guidelines of the NTCP. At all levels health managers were still stressing the importance of re-orientating doctors towards adhering to otherwise universally accepted TB control principles, for example, of sputum testing to diagnose TB rather than the constant overuse, even misuse, of costly X-ray diagnosis. Barring a few appreciated exceptions, doctors have remained deaf to the pleas of the health managers in their facilities and districts. Physicians' re-orientation and retraining by national level health managers have been met with variably poor results. Public health managers experience the self-righteous attitudes of hospital doctors to be detrimental to TB control as a whole. Hospitalisation in the Free State might be much more beneficial to TB control if PHC nurses and hospital doctors really work together as a team.

On the positive side, Chapter 5 reveals strong indications that public district hospitals in the Free State are able to take up the extra workload brought about by the closure of Allanridge Chest and Santoord Hospitals. While the views of health workers and managers were certainly not unanimous in this respect, and while district hospitals' intramural care for TB is not running uniformly smoothly, there seems to be growing confidence in the public sector's ability to itself hospitalise TB patients. Certainly, the one development in the Free State that all health managers interviewed were in agreement with, and which they felt was in the best interest of TB control in the province, is the new MDR-unit in Thaba Nchu.

However, hospitalisation for TB remains an intricate and dynamic affair and health workers and managers' views and experiences will change as time goes on. Social and health systems researchers interested in the phenomenon of hospitalisation for TB can hardly afford to negate the suggestions of frontline TB control practitioners and their managers.

3.5 How do TB patients themselves experience hospitalisation in the Free State?

The surveyed TB hospital patients originated mainly from towns and farms, rather than cities; were mostly male, in their late thirties of age, unmarried and functionally literate; lived in formal (though often overcrowded and poorly ventilated) housing; were often unemployed and poor even before their falling ill with TB and being hospitalised; were mostly unemployed while in hospital; experienced qualifying for government grants as arduous and even to be thwarted by Santoord Hospital staff; and mostly felt that they had positive employment and income generation prospects for the future.

As regards these patients' health beliefs it was found that only about one in every four patients offered a Western-medical explanation of TB. With reference to their health-seeking behaviour about half the patients first presented to a PHC clinic when falling ill with TB. Some patients went directly to a public hospital. The majority of patients were hospitalised for TB more than once.

Regarding their admission to hospital and the health education they received there, Santoord Hospital patients were less inclined to experience nurses and doctors positively than public hospital patients. There was an ethos at Santoord Hospital of patients fending for themselves rather than

depending on staff. Santoord Hospital patients reported that they experienced stigmatisation at the hands of nurses and doctors. Many TB hospital patients denied having been educated on TB-related issues imperative to amicable hospitalisation for and control of the disease.

The Hospital patient survey unequivocally showed that public hospital staff, like public hospitals generally, was more appreciated by patients than Santoord Hospital staff, and Santoord Hospital as such. Evidence to date is that, at least from the patient's perspective, public hospitals simply fare better and act more humanely in the provision of intramural care for TB. At least public hospitals avail physicians to add force to the fight against TB. Also these physicians do not consult TB patients from behind glass partitions.

Stigmatisation of TB was reported by patients to extend beyond the confines of hospitals and to feature also in their community and family lives, and even in their relationships with their life partners. Only their children and their parents, TB hospital patients said, were unconditionally supportive of their plight.

It was not that Santoord Hospital patients did not want to be hospitalised. Rather, they just did not want to be hospitalised at Santoord Hospital. Here they were mostly dissatisfied with being far from home and having little privacy and limited opportunity to express their culture or engage in recreation during a lengthy mean 125 days of incarceration. While Santoord Hospital patients appreciated the availability of the drugs they required at Santoord Hospital, and the fact that their health (reportedly) improved, they also strongly protested against stigmatisation and poor health care that they experienced at the hands of this NGO hospital. Nevertheless, they were confident in their own ability to see their TB treatment through to the end. As regards absconding from intramural TB care, the small group of patients who admitted to such behaviour suggested that their actions (including their return to the hospital) were prompted by such external factors as the needs and 'demands' of their families. Generally, patients were loath to report any positive experience of Santoord Hospital, and eager to resume their work and family lives, albeit then under the care of public (district) hospitals and PHC clinics.

Chapter 6 cannot claim that hospitalisation for TB is ever pleasant for the patient. Even in the most humane and well-resourced hospital, intramural care for TB will be traumatic and sometimes even

dehumanising. Now that district hospitals and the new MDR-unit in the Free State have taken on the burden for TB hospitalisation, future research should be directed towards understanding of the patient experience in the public sector.

4. Recommendations

The current study, being of an exploratory and descriptive design, can make recommendations only cautiously and subject to verification by future research. Nevertheless, research recommendations, emanating from the attempt to answer the five research questions, are applicable the different levels of the health care system and are addressed to health workers and managers at the facility, district, provincial and national levels; as well as to social and health systems researchers interested in this subjected.

4.1 Health workers and managers

Contracting-out

Contracting-out of TB hospital services in the Free State is unlikely to occur again given the current pre-occupation with strengthening the role of public district hospitals. But should this again be considered, the Free State Department of Health should invest more heavily in monitoring the contractors' performance and adherence to the requirements of the national and provincial TB control programmes.

Health education

Health education should become an integral part of the TB control programme as implemented in districts. The major emphasis ought to be placed on the curability of the disease. Health professionals also have to anticipate critical moments in treatment compliance and assist patients and their families to bridge stigmatisation: Health professionals should act to destigmatize and avoid any attitudes that may affirm the stigma. Health education implies education of both patient and medical staff.

Doctors' and nurses' roles

In respect of doctors' role in hospitalisation for TB, this study can only add its voice to that of the health workers and managers reported in Chapter 5. Most important, this means that doctors should diagnose TB through sputum microscopy as required by the NTCP and as recommended by the World Health Organisation. Nurses at PHC clinics should take more trouble to communicate with hospital doctors about the diagnosis of TB patients, especially when a doctor diagnosed TB, but this could not be confirmed by sputum testing at the clinic. Such a practice would improve team building in district TB control programmes.

MDRTB

In respect to MDRTB, the recommendations of Weyer are supported: *“Patients with MDR are best treated in hospital, at least until 3 consecutive monthly sputa are culture negative. The most cost-effective way of doing this is to provide special, well ventilated, wards in existing hospitals. It is not recommended that separate ‘MDR’ hospitals be built far from the patient’s social support network ... Treatment of patients with [MDRTB] involves second line reserve drugs. These are more expensive, less effective and have more side effects than standard [TB] drugs. Treating MDR patients requires experience and special expertise. It is therefore recommended that each province establish a specialised facility or specialised management team to which [MDRTB] patients can be referred for evaluation, prescribing of treatment and follow-up, as well as for specialised counselling ... In provinces where the incidence of [MDRTB] is too low to make this a viable option this team could also provide a referral facility for patients with susceptible [TB], referred from clinics with problems such as allergic reactions to drugs, which may need specialised attention.”*

Hospital information systems

Having been identified already in the early phases of hospital restructuring in South Africa, a lack of ‘useful’ hospital information is a recurring theme in the literature. This includes the absence of both patient-oriented need analyses and routine data (e.g. data with reference to single clinical departments as functional units or cost centres within complex facilities and hospital systems and subsystems). There is also a lack of a clear typology or classification of hospital types, especially the various types of voluntary, state-aided for-profit, state-aided not-for-profit, charitable, and industry-based hospitals. Little is documented about hospital-type facilities provided by other government departments than the Department of Health. The complete structure of the private hospital sector has not been well reviewed in the literature since the 1990s. A clear classification of hospitals should

precede a next national hospital audit for South Africa. There is little doubt that such an audit is necessary and should be more inclusive of the full spectrum of hospital types than the last one in 1996. In a country spending 60% of public health funds on hospitals, policy makers and researchers alike should at least know exactly know how many hospitals (of the various types) there are, and how many beds and what types of services they provide.

It could be argued that control over private hospitals is exerted by the principles of the free market. Nevertheless, the government, in order to give effect to its policies of curtailing private hospital bed provisioning, stiling the exodus of trained health workers to the private sector, and maintaining, first and foremost, the interests of the masses of uninsured and indigent people of South Africa, needs to compel the private hospital industry to develop/provide free access to an information system allowing assessment of its structures, profits, admission and emergency care policies, staffing patterns and general contribution to the redress of inequalities in health care. Failure to do so simply gives private hospitals freehand in what is fast becoming a total monopoly of quality hospital care for purposes of capital accumulation (including that of medical technology) by the elite and for the elite. It is ironic that ordinary people have to declare in great detail their income in tax returns, while large private hospitals and chains of private hospitals effectively operate under a cloak of secrecy and, importantly, are not in any meaningful way compelled to declare their contribution to social and socio-economic redress. Hospitalisation for profit, whilst undoubtedly availing quality care for the few, is equally detrimental to the needs of the many.

All provinces need to make sure that their hospitals that provide TB inpatient care are equipped to and capable of playing their full part in the TB control programme. For the Inpatient Care Team this means that hospitals should: *'treat TB patients in conditions that minimise the risk of cross infection'*, *'have easy access to appropriate diagnostic and treatment facilities'*, *'have the latest policies and procedures'*, and *'have staff trained and competently using those policies and procedures'*.

4.2. Social and health systems researchers

The *'quality'* of hospital can be defined broadly: *'excellence within a given service ... is described by means of standards and criteria in accordance with the expectations of the different role-players: the patient, service providers and funders'*. It is the first-mentioned of these three role-players, who is particularly neglected in the South

African '*hospital*' literature. Hospital user surveys and other types of studies of the hospitalisation experience, even of a small scale, hardly feature. As this is a terrain ideally suited to the social sciences and medical sociology in particular, it may be concluded that these sciences are making an insufficient contribution to the study of hospitals. In South Africa the social aspects of hospitalisation have not been systematically studied in any of the major hospital settings whether public, private-for-profit, state-aided, voluntary, or industry-based. The complex impact of social dynamics in catchment areas and society at large on hospitals' functioning and continued hospital reform requires rigorous study. The dearth of a social science research agenda can only mean that hospital policy makers and managers are not supported by '*social statistics*' and by documentation of the patient perspective to inform their decisions.

Further researches on the social (cultural and behavioural) factors that influence patient adherence are necessary. Patient default and long delays to seek treatment have received little attention. While there is a large body of socio-medical literature on TB, social scientists have yet to comment on what Farmer terms the '*new*' TB.

A continued undercurrent of militancy in hospitals also necessitates the need for further research into working conditions at hospitals, as well as the nature of relationships between professionals and other professionals, between the various levels of hospital policy-makers and managers, and, importantly, between professionals and patients, families and communities.

Research is also outstanding to determine exactly how HIV impacts on hospitalisation for TB in the Free State. Also it will be necessary to assess the functioning of the new MDR-unit at Dr. J.S. Moroka Hospital.

5. Conclusion

The arduous transformation of the South African hospital system is motivated by (i) the drive for a more egalitarian system, i.e. greater equality in the use of public health resources for all citizens; (ii) the dire need to improve quality and efficiency in care and resource usage in, especially, public hospitals; and (iii) the necessity to align the South African health care system with the globally accepted PHC approach. The PHC approach does not simply downscaling of hospital services.

Functional integration of the hospital into a full basket of PHC services delivered in the health district is necessary. It is clear that the DHS is becoming the vehicle for organising and dispensing health care services, and this impacts profoundly on hospital service provision, as well as on the user's experience of hospitalisation.

Although there are tensions between primary and referral level services, PHC clinics and hospitals are supplementary and complementary to each other. In fact, district hospitals often provide care that essentially 'is' PHC. There is, for example, little doubt that a 'PHC' service such as delivery by caesarean section inherently 'belongs' in the hospital, while another such as diagnosis of PTB inherently 'belongs' in the PHC clinic. Even in the case of the latter example the interrelatedness of facility types is illustrated in as far as sputum collected from the patient at the PHC clinic, needs to be tested in a laboratory, which, in turn, is usually situated within a hospital. Hospitals, as much as they are there to provide bed-care for people incapacitated by illness, are there also to provide clinical and technical support to primary level health services. The hospital might therefore also be responsible for diagnosis of more complicated cases, e.g. extra-pulmonary TB.

The importance of district hospitals to effect PHC and TB control is beginning to take root in South Africa, and several initiatives to improve the quality of care in district hospitals have begun. There is a great need for continued hospital policy and management development. The central thrust of contemporary thinking calls for more involvement, more interaction, more exchange and more sharing in decision-making. Overly bureaucratic, 'top-down' engagement of hospital policy-makers with hospital managers, hospital managers with hospital workers, and hospital workers with patients and communities, are obstacles to be overcome in democratising the hospital health care system.

6. Closing statement

In many ways the hospital is peculiarly characteristic of our society. In a single physical locality, technology, bureaucracy, and professionalism are juxtaposed with the most unavoidable of human experiences – birth, illness, pain and death. The modern hospital symbolises the gap between human aspirations and necessary human failings in an institution that reproduces values and social relationships of society, yet manages at the same time to remain isolated from the people who need it. In both its public and free market variants the South African hospital remains an arena for social

competition. The symbolic nature of the hospital lies therein that it represents society's best efforts to save the lives of its citizens, whilst it also represents the social and economic inequalities inherent within society.

This study investigates hospitalisation for TB with due consideration of a health system being transformed by South Africa's (and the Free State's) first democratically elected government. Janse van Rensburg-Bonthuyzen (2001, 2002; 2003) found: "*With some difficulty the Free State Department of Health is achieving successful TB control through its [PHC] and [DHS] approaches and through the vehicle of the WHO DOTS programme.*" This study, furthermore, investigates hospitalisation for TB from the perspective of the patient. Matebesi (2001; 2002) found: "*TB patients in the Free State are poor and disadvantaged. Their illness careers are fraught with difficulty, including stigmatisation.*" To this complex state of affairs the current study adds: "*TB hospital patients in the Free State are the poor of the poor.*" Therefore these patients are deserving of the best institutional care the Free State Department of Health can offer to alleviate their medical and social plight. "*The public district hospital in the Free State, i.e. the primary referral institution within the [PHC] approach and the [DHS], is somewhat slow to react to the challenges brought about by the closure of the former NGO and private hospitals. These challenges demand increased delineation of the district hospital as a focal point in state-driven TB control. Immediate needs are to (i) intensify the training/re-orientation of district hospital doctors, and (ii) clearly reserve beds in district hospitals especially for TB patients*" (Heunis, 2003).

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Photographs

Photograph 1 Nelspoort Sanatorium, 2003



Photograph 2 Thaba Nchu, 2003



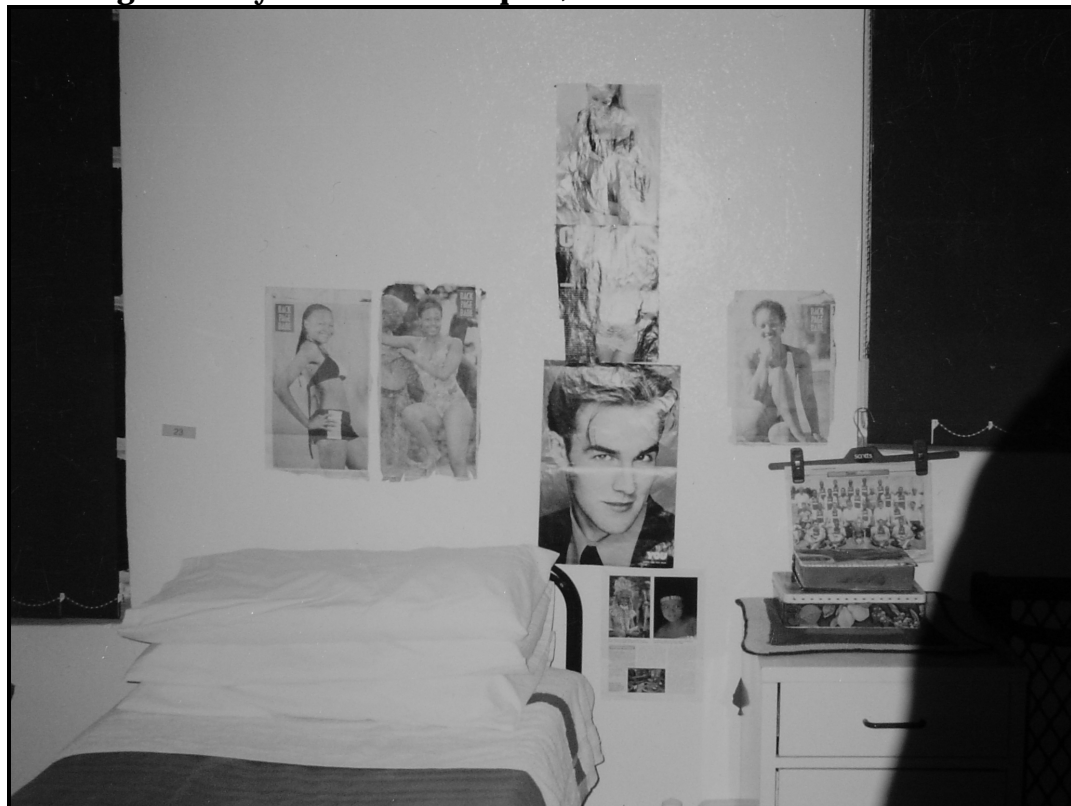
Photograph 3 Road to Santoord Hospital, 2001



Photograph 4 Isolation of Santoord Hospital, 2001



Photograph 5 Long-term stay at Santoord Hospital, 2001



Photograph 6 Security at Santoord Hospital, 2002



Photograph 7 Dilapidation of Allanridge Chest Hospital, 2003



Photograph 8 Infrastructure of Allanridge Chest Hospital, 2003



Photograph 9 Dilapidation of Poloko Sanatorium, 2003



Photograph 9a Dilapidation of Poloko Sanatorium, 2003



Photograph 10 Elizabeth Ross Hospital, 2003



Photograph 11 Botshabelo Hospital, 2003



Photograph 12 Dr. J.S. Moroka



Photograph 13 Dr. J.S. Moroka Hospital, 2003



Photograph 14 Mr. E. Mojake, MDR-unit, Dr. J.S. Moroka Hospital, 2003



Photograph 15 Female cubicle, MDR-unit, 2003



Photograph 16 Extraction fans, MDR-unit, 2003



Photograph 17 Ten-year old MDRTB patient in private room, 2003



Photograph 18 Recreation, MDR-unit, 2003



Photograph 19 Mofumahadi Manapo Mopeli Hospital, 2003



Photograph 20 RDP homes, 2003



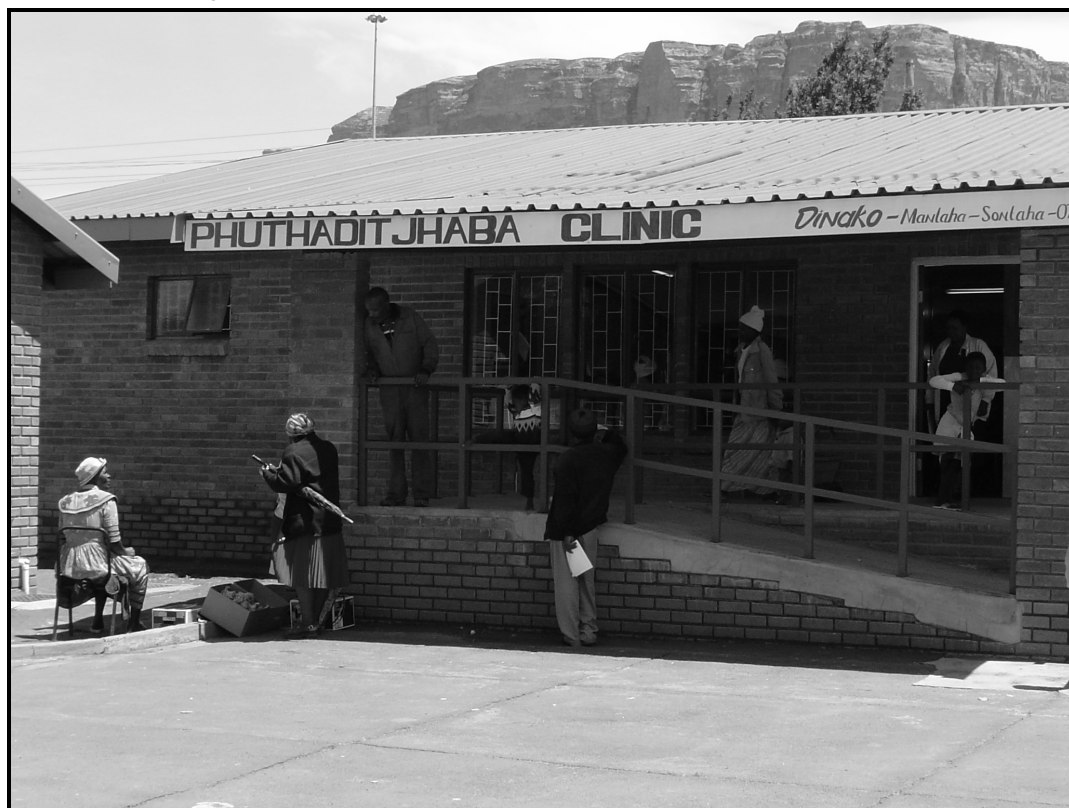
Photograph 21 'Mokhukhu', 2003



Photograph 22 Welkom Town Clinic, 2003



Photograph 23 Phuthaditjhaba Clinic, 2003



Photograph 24 Gaongalewe Clinic, 2003



Photograph 25 Mafane Clinic, 2003



Photograph 26 Mr. Z. Mokhethi, Mrs. A. van der Spoel-van Dyk and Me. V. Jonas, 2003



Photograph 27 Me. O. Tsopo, 2003



Photograph 28 Mr. Z. Matebesi, 2003



Photograph 29 Dr. E. Balt and Me. P. Richards, 2003



Photograph 30 Mrs. A. Peters, 2003



Photograph 31 Dr. A. Oosthuyzen, 2003



Annexures

Annexure 1 Ethical clearance for the Joint Free State TB Research Project from the Faculty of Health Sciences, University of the Free State

DIE UNIVERSITEIT VAN DIE ORANJE-VRYSSTAAT



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UOVS

Geagte Prof van Rensburg

ETOVS NR 148/00

NAVORSER: PROF HCJ VAN RENSBURG

PROJEKTITEL: "JOINT RESEARCH PROJECT ON TUBERCULOSIS IN THE FREE STATE, SOUTH AFRICA: FROM INFECTION TO CURE – FOCUSING ON THE PATIENT CAREER, THE SOCIO-ECONOMIC ENVIRONMENT AND THE HEALTH CARE SYSTEM."

Gedurende die vergadering gehou op 25 Julie 2000 het die Etekkomitee bogenoemde studie goedgekeur.

U aandag word op die volgende gevestig:

- Dat 'n vorderingsverslag ingehandig moet word nie later nie as 'n jaar na goedkeuring van bogenoemde studie.
- Dat alle uitbreidings, wysigings, ernstige nagevolge, staking/kansellering van studies aan die Etekkomitee voorgelê moet word
- Dat dit 'n vereiste is dat in relevante studies MBR-goedkeuring verkry moet word voordat met 'n studie begin word.

Meld asseblief die Etovs nommer soos hierbo genoem in toekomstige korrespondensie, verslae en navrae.

Vriendelike groete

Die uwe

N/DIREKTEUR: GENEESKUNDE ADMINISTRASIE

Annexure 2 Authorisation for the Joint Free State TB Research Project from the Free State Department of Health



FREE STATE PROVINCIAL GOVERNMENT

Health

Head: Prof. KC Househam, Department of Health, PO Box 227, Bloemfontein 9300, Tel (051)4054488, Fax (051)4033129,
Housekcc@ech ofs.gov.za

Prof. HCJ van Rensburg
Center for Health Systems Research and Development
University of the Orange Free State
P.O. Box 339
BLOEMFONTEIN
9300

Dear Professor HCJ van Rensburg

**JOINT RESEARCH PROJECT ON TUBERCULOSIS IN THE FREE STATE,
SOUTH AFRICA**

The Free State Department of Health is supportive of the proposal and wishes to indicate that Tuberculosis and the prevention and management of tuberculosis is a priority for the provincial health services.

Yours sincerely

A handwritten signature in black ink, appearing to read 'K.C. Househam', written over a dotted line.

• PROF. K.C. HOUSEHAM
HEAD: DEPT. OF HEALTH

PROF. KC HOUSEHAM
HEAD: FREE STATE HEALTH
DATE: 6 NOVEMBER 2000



A Healthy & self-reliant
Free State Community



FREE STATE PROVINCIAL GOVERNMENT

Health

CEO: Mr M.S.Shuping, S.F.S Complex, PO Box 227, Bloemfontein 9300, Tel (051)4470993, Fax (051)44755129
Email: SHUPS@DOH.OFS.GOV.ZA. Room 6, Oranje PHC Training Centre, Victoria Street, Bloemfontein

Prof. H.C.J. Van Rensburg
Centre for Health System Research and Development
University of Oranje Free State
P.O. BOX 339
BLOEMFONTEIN
9300

DEAR PROF DINGIE VAN RENSBURG

RESEARCH PROJECT ON TUBERCULOSIS IN THABA NCHU

The Southern Free State Regional Complex supports the proposal and I wish to indicate that combating TB remains a priority that needs the joint effort of all us.

I would like to refer you to Mrs A. Setlentoa (The Assistant Director PHC in Thaba Nchu) and Mr E. Mojaki (The SEO at Moraka Hospital).

I wish you well in your project

Yours sincerely

M.S. SHUPING
DEPT. OF HEALTH
CHIEF EXECUTIVE OFFICER
SOUTHERN FREE STATE REGIONAL DISTRICT
CEO: SFS REGIONAL COMPLEX

DATE:

23/02/2001





FREE STATE PROVINCIAL GOVERNMENT

Health

Mrs R. Sibeko: District Manager DC 19, P/Bag X 824, Bethlehem 9700, Tel (058)713 0515, Fax (058)713 0318
Email: SIBEKOR@DOLLOFS.GOV.ZA, Oumbada Building, Bethlehem

PROF HCT VAN RENSBURG
CENTRE FOR HEALTH SYSTEM RESEARCH AND DEVELOPMENT
UCFS
BLOEMFONTEIN
9300

RESEARCH ON TB AT QWAQWA

Reference is made to your correspondence received, regarding the above mentioned issue. The District Health Services support this move, to ensure that TB is dealt with in totality as it is the priority, i.e Me V. Shangase can be contacted as well as Me Bolofo, on this subject so as to support this initiative.

Hope you will find this in order

Thank you


MRS R. SIBEKO

DISTRICT MANAGER DC 19

DATE: 5/3/01





FREE STATE PROVINCIAL GOVERNMENT

Health

Me N.J. Jolingana, Deputy Director, Private Bag X 15, Welkom 9460, Tel. (057) 3521453, Fax (057)3529277
E-mail: jolingn@doh ofs.gov.za. Room 2, Kopano Building, Long Road, Welkom

Prof. Dingie van Rensburg
Director: CHSR & D
University of Free State
P.O. Box 339
Bloemfontein
9300

RESEARCH ON TB IN THE DISTRICT (DC 18)

The Management of the Lejweleputswa health district (DC 18) fully supports the research that is conducted by the centre for health system research and development in our district.

This research will help inform our plans and interventions in our fight against TB. The centre can therefore access health facilities in the district for purposes of research. The management of such facilities should, however be informed in time to enable them to make necessary arrangements. Staff participating in the project will also do so on a voluntary basis.

We wish you well with your project


Me. N.J. Jolingana
District Manager DC 18

MRS. N.J. JOLINGANA
DEPUTY DIRECTOR

Date: 09/02/01

Annexure 3 Support for the Joint Free State TB Research Project from SANTA

**SOUTH AFRICAN NATIONAL TUBERCULOSIS ASSOCIATION
FREE STATE PROVINCE**

FUND RAISING NO. 01-100208-000-0

Tel. 051 4323578
Fax. 051 4323578
Cel. 0825018815

P O BOX 23844
KAGISANONG
BLOEMFONTEIN
9309

Verw. No. / Ref. No.

Navrae/Enquiries:

Tel. No.

Die/The *Director*
*Centre for Health System research
& Development*

KANTOOR VAN DIE OFFICE OF THE

Provincial Manager

P.O. Box 23844 KAGISANONG 9309

04/26/2001

Dear Prof.

I hope and trust that all is well with you and the team.

As was said by myself that the matter of the sought support by your team from us was referred to the National Secretariat through the Community Services manager Mr. Tsietzi Molebatsi (011 454 0260)

As you may understand this has to go through the organisational procedure and/or protocol hence the delay however, I fully believe that SANTA would not prefer to be of impediment in this important task therefore the SANTA field staff is available to assist where possible as I realise that the process is already on course.

Herewith some basic information on SANTA - TB, TB-HIV/AIDS.

*Thank you
BN Masingwana*

Annexure 4 Letter of introduction to TB hospital patients

UNIVERSITEIT VAN DIE VRYSTAAT
UNIVERSITY OF THE FREE STATE
YUNIVESITHI YA FREISTATA



Centre for Health Systems Research & Development

J.C. Heunis

PO Box 339 BLOEMFONTEIN 9300



Facsimile:

E-✉:

(051) 401-2181

(051) 448-0370

heunisj.hum@mail.uovs.ac.za/

Dear Sir/madam

HOSPITAL TUBERCULOSIS PATIENT INTERVIEW

I am from the University of the Free State (Centre for Health Systems Research & Development). We are conducting research on the hospitalisation experience of TB patients. The Centre for Health Systems Research & Development is conducting this research in collaboration with the Free State Department of Health and the South African National Tuberculosis Association (SANTA). This study is part of a joint three-year research project to improve TB control in the Free State. The Medical Research Council of South Africa (MRC) in Cape Town and the National Research Foundation (NRF) in Pretoria primarily funds this research.

We kindly request your participation in this research. I would like to conduct an interview with you that should take no longer than one and a half hour of your time. There is no obligation on your part to participate in this research or this interview. Also, if at any stage you do not feel up to continuing with the interview, I will immediately stop asking you questions. You can then indicate when you feel able to continue with the interviews.

The information that will be collected will be useful for planners and policy-makers in developing strategies to control TB in the Free State. In particular, it is hoped to gain a better understanding of the patient's experience of hospitalisation. Participating in the survey will give you an opportunity to share your experiences and views on a variety of issues related to TB. Thus, the success of this survey depends on your kind co-operation. The information collected will be handled with the greatest confidentiality. Your name and/or address will not appear on this questionnaire and as researchers we are obliged to protect your anonymity in the research report and in all discussions with the staff of this hospital.

Christo Heunis

Researcher: Centre for Health Systems Research & Development

The **Centre** is committed to efficiency, equity and equality in health and health care