

SECOND CARNEGIE INQUIRY INTO POVERTY
AND DEVELOPMENT IN SOUTHERN AFRICA

Can good tuberculosis care be
provided in the face of poverty?

by

Eric Buch, Kathryn Johnson &
Rosemary Mashabane

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PREFACE

Gazankulu is one of South Africa's so-called "black states". The Mhala district is an isolated island midway between Nelspruit and Izameen. It is typical bushveld with limited water and poor agricultural potential. 152,000 people live in Mhala's 57 villages which vary in size and infrastructure. Health services are underdeveloped and comprise one 260-bed hospital (Tintswalo), one health centre, ten clinics and a mobile clinic.

Why did Wits Medical School become involved here? It was by both design and fate. At Wits we had people interested in rural health and a benefactor (Anglo American Chairman's Fund) prepared to sponsor rural health work. The government has encouraged the various medical schools to become involved in rural health care and has designated schools to particular "homelands".

So we became involved in Gazankulu and the Health Services Development Unit (HSDU), a project of the Wits Department of Community Health, was established. The objectives of the Unit are the training of appropriate health service staff, the expansion and development of clinic services and the creation of a health service which is community supportive and responsive to local needs. To succeed we need the goodwill, support and respect of the community and the wholehearted backing of the existing health service.

This paper and the others of the HSDU are reflections, analyses, recommendations and ideas and are the product of our first two years' experience. Opinions expressed are based on the critical analysis of hard data on the one hand and on personal impressions on the other. Whatever the opinion, it has been acquired by first hand and sustained personal experience.

The papers cover three aspects of our experience:

1. The State of Health and Health Care in Mhala

- a. Health and Health Care in Mhala : an overview.
- b. The Nutritional Status of Children 1 - 5 years.

2. A Critique of Some Health Service Interventions in Mhala

- a. Community Health Workers in Mhala : Perversion of a Progressive Concept?
- b. How well do our Rural Clinics Function?
- c. Reviewing the Health Centre Policy.
- d. Mobile Clinics : What can and do they Achieve?

3. Health Service Interventions by the Wits HSDU

- a. Do Primary Health Care Nurses in Gazankulu provide Second Class Cheap Care to the Poor?
- b. Can good Tuberculosis Services be provided in the Face of Poverty?
- c. School Health Services : Problems and Prospects.
- d. Mass Immunisation Campaigns - The Tintswalo Experience.

The message is that:

- Health care in Mhala is inadequate.
- This care can be improved without preceding changes in the present economic and political systems.
- Such improvement is limited by social, economic and political constraints which are the root cause of such illness.
- It is worth working in "homeland" health services because of what can be achieved.

In acknowledging all who have worked in or with HSDU it must be remembered that health service development is a team effort. Many of the people of Mhala, the hospital staff, primarily Dave Stephenson as superintendent and the community health nurses, Dr Erica Sutter and the superintendents and staff of Gazankulu's other hospitals, the health department led by Dr Roos and, more recently, Dr Robert, and the Chief Minister of Gazankulu have all contributed to the establishment and development of the Unit. The Chairman's Fund of Anglo American and the University of the Witwatersrand have provided the infrastructure.

The action has come from Anita and Bob Backentose, Eric Buch, Rob Collins, Cedric de Beer, Clive Evian, Vic Gordeuk, Meryll Hammond, Thoko Maluleka, Shirley Maswanganyi, Sanilesiwe Mtetwa, Dipuo Mosoue, Robert Naugh and Merrick Zwernstein.

CAN GOOD TUBERCULOSIS CARE BE PROVIDED IN THE FACE OF POVERTY?

Eric Buch, Kathryn Johnson and Rosemary Mashabane

Tintswalo Hospital is situated at Acornhoek in the Mhala district of Gazankulu. It serves 152 000 people who live in 57 rural villages. The villages are spread over an area 1 204 sq. km. The hospital has 260 beds, a busy outpatients service, ten clinics and one health centre. In practice many people from Mhala use Masana hospital at Bushbuck Ridge, as it is closer to them. Masana is a Lebowa hospital. In turn, many people from the Mapulaneng district of Lebowa, and workers from the white owned farms to the north of Acornhoek use Tintswalo.

Tuberculosis (TB) is one of the diseases of poverty that is prevalent in the area. The average number of confirmed new admissions per month for 1983 was 26. However, a more accurate reflection of the TB problem is that 895 (46,3%) of 1 935 children in Sub A and Sub B at 8 schools had PPDs measuring 15mm or more. A PPD is a skin test that leads to a swelling that measures infection by tuberculosis bacteria. If its length is 15mm or more in young children, they should get tuberculosis treatment. This indicates that we are at present only responding to the tip of the iceberg.

Only 38,7% and 44,1% of patients admitted to Tintswalo in 1980 and 1981 respectively received enough treatment. Enough treatment is defined as "a patient who has received more than 80% of the treatment required by a standard tuberculosis regimen". Patients who receive inadequate treatment are not cured, and therefore continue to spread tuberculosis in their community. They also get more permanent lung damage and become more resistant to treatment.

The importance of TB care and the inadequacies in our service, led us to initiate a TB services development programme at Tintswalo. The first step was to develop our approach to tuberculosis control.

OUR APPROACH TO TUBERCULOSIS CONTROL

There are four ways to control tuberculosis. These are reducing poverty, secondary chemoprophylaxis, BCG immunisation, and case finding and curative treatment. Let us look at each in turn.

Options excluded

Reduction in poverty is theoretically the best approach. Socio-economic advancement reduces the number of people who go from dormant to active tuberculosis. This is because it removes the stresses of poverty, such as malnutrition, which reduce the body's resistance, and hence its ability to prevent the bacteria becoming active. Data from Europe confirms this. In the Netherlands for example, the annual risk of infection declined from 6% in 1920 to about 2% in 1950 before the introduction of modern anti-tuberculous drugs and BCG immunisation. (1) These later measures hardly affected the decline already established by the reduction of poverty.

Unfortunately rapid reduction of poverty is not happening in the homelands, so we cannot sit back and wait for tuberculosis to burn itself out. With our limited resources we are also not in a position to fundamentally change the extent of poverty.

The second option, that of secondary chemoprophylaxis requires all people who have been infected by tuberculosis bacteria to receive anti-tuberculous drugs. Unfortunately, we cannot tell the difference between people who have been infected and have killed the TB bacteria; and those who have been infected and have living, (albeit dormant) infections. Therefore, if we use secondary chemoprophylaxis we would have to treat all the people who have been infected. In practice this means giving 6 months of anti-tuberculous drugs to most people with a PPD measurement greater than 15mm. 46,3% of children in Sub A and Sub B already have PPD's greater than this. The option of secondary chemoprophylaxis is therefore theoretical only. It is impossible for us to identify and ensure supervised care for more than half the children in our district.

Our approach

With reduction in poverty and secondary chemoprophylaxis excluded, our approach to control was decided for us. We would use BCG immunisation, and case finding and curative treatment.

BCG immunisation is worthwhile even though it only provides partial protection.

- (2) We decided to improve our coverage by giving an extra dose at 3 months of age, and by offering BCG immunisations with our mass immunisation service.
- (3) More than 30 000 children were immunised in this way.

The main thrust of our tuberculosis control programme is to find people with active tuberculosis, and to cure them. This helps because people with active tuberculosis cough up TB bacteria, which are then inhaled by those around them. By finding and curing these people we remove the source of infection.

But this is easier said than done. We recognize four steps in the process. These are:

- a. To diagnose and cure the TB patients already reaching the service.
- b. To trace defaulters from the service.
- c. To find the family contacts of TB patients. (They have more TB than the general population).
- d. To do a community search to find new patients.

The first step is worth expanding on. There is no point finding defaulters or new patients unless you are curing those you already have. At Tintswalo only 42,1% of confirmed TB patients in 1980 and 1981 received enough treatment. There was therefore no point in us finding more patients, unless we had learned to cure those that we already had coming to us. If we did we would simply be adding most of them to the number of failures.

Our work thus far has only covered the first step: improving our ability to diagnose and cure those patients already reaching the service. The rest of this paper explores this experience.

WHAT STEPS HAVE BEEN TAKEN TO HELP DIAGNOSE AND CURE THE TB PATIENTS ALREADY REACHING THE SERVICE?

Conference papers often give an overly positive impression of the strength of service improvements. We would like to stress that our service is in a dynamic state. As a result some aspects of the service weaken, while others improve, only to change around later on. The whole service goes through stronger and weaker periods and even now things remain fragile.

The steps that we have taken to better diagnose and cure the TB patients reaching us can be conveniently considered under nine headings.

a. Standardising diagnosis and treatment.

Inconsistencies in the service existed because there were no set policies for diagnosis and treatment. This had a negative effect on patient care. TB cases were missed and other patients were incorrectly diagnosed as having TB. Many patients were put on inadequate treatment. Others were discharged without adequate preparation and supervision, and to environments that lead to almost certain defaulting.

We now admit all newly diagnosed TB patients to the TB ward. This ensures that care is appropriately initiated and received from the improved service. Patients are only discharged before completing 4 drug therapy if supervised ambulatory care is available. We use 4 drug therapy for 4 months. The drugs are rifampicin, pyrazinamide and isoniazid and ethambutol. (The last two in the form of Mynah tablets.) This is called short term therapy. We strongly favour short term therapy because it reduces the patient's treatment time from a year to 4 months.

Many people question the high cost of rifampicin. However, as care without rifampicin needs to continue for 12 months, the total drug cost is less. Further savings are made because less inpatient and supervised ambulatory care is needed and fewer defaulters need to be traced. Scarce staff and transport resources are also used less. Besides having a better chance of being cured, patients also spend less time away from work, family or school.

We did not consider the option of giving patients their tablets each month, (if they came,) and not worrying further as it results in very few patients being cured. (Unfortunately this practice still exists in most rural tuberculosis services.) Because it leads to more failed treatments and more people getting infected, even though it seems a cheaper option at first, it is in fact more expensive. It also means that more people remain weak for work or for learning.

We have stopped using streptomycin. We were advised to continue using it as it is the only TB drug given by injection. We were told that if we didn't our patients would see no reason to stay in hospital. This has not been our experience. When we introduced the new policy we explained it to our patients, but offered to continue injections for those who wanted them. There was much joy and no acceptors. So much so for the concept that "rural black patients love injections".

We have prepared a standardised drug dosage table. It is based on patients weight. (Table I below) This provides a simple reference to ensure that patients receive the correct dosage.

TABLE I
DRUG DOSAGES FOR TUBERCULOSIS PATIENTS AT TINTSWALO

Weight in kg					
Drug	15	15 - 24	25 - 34	35 - 49	50+
Pyrazinamide	250 mg tab	500 mg 1 tab	1 000 mg 2 tabs	1 500 mg 3 tabs	2 000 mg 4 tabs
Mynah*	1 tab	2 tabs	3 tabs	4 tabs	4 tabs
Rifampicin	100 mg 1 tsp (1 teaspoon)	200 mg 2 tsp (2 teaspoons)	300 mg 2 tabs (2x150mg)	450 mg 1 tab (1x450mg)	600 mg 1 tab (1x600mg)

* Mynah is a combination tablet, made up of 100 mg isoniazid and 300 mg ethambutol

b. Changing our relationship with our patients

Our patients were previously treated as passive uninformed recipients of care. We barely considered their personal problems or their beliefs. We realise that poor relationships with our patients leads to poor results. They are now partners in their own care. We build an informal contract based on trust and understanding.

Our patients receive clear information about their disease and its treatment. They know exactly how long they are likely to be in hospital, and under what circumstances they might be discharged sooner. We have tried to personalise care and to be responsive to the needs and social circumstances of the individual. In all our dealings with our patients we try to be friends rather than superior givers of health care.

Our patients' beliefs about the cause of tuberculosis and the care needed is a very sensitive area. A study, based on informal interviews in 3 villages showed that all of 39 randomly selected women believed that tuberculosis was caused by one of three kinds of improper sexual behaviour after the death of a relative. Mafularha (60%), ndzaka (30%) and mashisha (10%) are the local names. Little wonder that patients are not keen to be told that they have tuberculosis.

Rather than scorn or mock patients about their beliefs, we discuss them openly, but with respect. We encourage helpful beliefs and practices and discourage harmful ones. (This is one of the areas we tackle in our tuberculosis education programme.)

We believe that our changed approach, which has led to a changed relationship between us and our patients, is the key element in the success of the whole programme. Without it, a typical master-servant relationship between care giver and receiver remains, together with the negative consequences.

c. Informing our patients

Informal education takes place all the time. Although we stress its importance we don't rely on it.

The formal education programme, in addition to teaching patients, is a key component in the process of building relationships. It runs for an hour a time over 8 weeks. The programme is briefly outlined in Table II below. Role plays, stories or photographs act as discussion starters that allow us to raise subjects of conflict and concern in a non-threatening way. We then facilitate a discussion on the issues we have raised.

TABLE IITINTSWALO HOSPITAL TUBERCULOSIS SERVICEWARD HEALTH EDUCATION PROGRAMME - SUMMARIZED

<u>Subject</u>	<u>Method</u>	<u>Brief Outline</u>
What is TB?	Questions and answers	Explain the cause of TB by letting patients see TB bacteria under the microscope. Then explain what these bacteria do to our lungs, (by looking at X-rays) and how these lead to our symptoms.
TB medicines	Role play and discussion Demonstration of tablets	A role play of one patient spitting his tablets out into the toilet. A friend sees this, so the patient explains why he does it. This generates a discussion during which we hope to cover the names of the tablets, why patients need to take so many, how they work, and how we decide doses.

<u>Subject</u>	<u>Method</u>	<u>Brief Outline</u>
Length of TB therapy	Role play and discussion	A role play of a patient who feels better after two months of treatment, and decides to stop. The discussion focuses on what might happen to him and why we need to take TB treatment for so long.
Pressures on patients to abscond	Story and discussion	A story about a man who was forced to abscond to look for work because his family was starving. He got ill again but was scared of being scolded if he returned to the hospital. Sadly he stayed away until it was too late. Discussion focuses on the problems leading to absconding and generates ideas on how we can help each other solve them.
Traditional healers and traditional beliefs about TB	Role play and discussion	A role play of two men coughing while drinking marula beer. One decides to go to the traditional healer, the other to the hospital. When the latter is discharged he visits his friend, who is still ill. Discussion focuses on the role of traditional healers and hospitals in TB care, and on the origin and current value of traditional TB beliefs.

<u>Subject</u>	<u>Method</u>	<u>Brief Outline</u>
Why not to abuse the open ward policy	Role play and discussion	A role play of two patients who get drunk at the local 'bar-lounge' and arrive back at the ward. Discussion focuses on ward policies, the reasons for them, and why the 'open ward policy' should not be abused.
The role of the nurse	Role play and discussion	A role play of a strict and somewhat rude nurse. Discussion focuses on why and how our TB nurses are different.
The need to come early for TB treatment	Photograph and discussion	A photograph of a 'skin and bones' TB patient. Discussion focuses on the value of early treatment, and invites patients to bring their families for free check-ups. Patients may offer to spread the word when they are discharged.

The programme certainly generates discussion and seems to have an impact. For example, as our patients are taught what tuberculosis looks like on chest X-ray, some now refuse discharge until they have seen satisfactory progress on their own X-rays. (We are busy evaluating our formal health education programme.)

- Note: The discussion goes through 4 stages:
- a. What happened in the role play, story or picture? - To make sure everyone understood.
 - b. Does this sort of thing happen in real life? - To bring in people's reality.
 - c. Could/does it happen to us? - To relate the problem directly to themselves.
 - d. What can we do about it? - To bring out ideas on what patients and the health service can do. We try to follow up with action.

d. Improving in-patient care

The tuberculosis ward used to be run on the strictest nursing lines. Some of our patients likened it to being in jail.

Most of our patients do not require extensive nursing care. In fact, if we had been able to arrange adequate supervised ambulatory care, most would not be in hospital. Because of this we decided to run an 'open ward' for those patients who do not need full nursing care. The only rule is that patients must be in at 10.00 a.m. when medicines are handed out. (10.00 a.m. was the time our patients chose.) They are otherwise free to move around the hospital and the nearby villages.

Patients may have as many pass outs as they want, without giving reasons. They really like this system as they are able to solve work and family problems and check that things at home are OK, knowing all the time that they will be welcomed back.

We expect our patients to help keep the ward clean, dish up food and make their beds. Initially this caused problems as our patients felt that if they were in hospital they were entitled to have this done for them. A role play and 2 hour discussion about whether this was fair practice on our part solved the problem. We were mostly observers of a discussion in which some patients argued that they could see we were short of staff and that their help would give us more time to care for sick patients. Others stuck to the idea, at least initially, that they were entitled to be looked after.

We have discussed other aspects of ward policy with our patients. For example the men chose to be seen privately while the women wanted to be seen at their beds.

Relatives are now seen as a resource rather than 'something that gets in the way'. Whenever we have the time available we try and discuss problems with family members and gain their support.

We have improved ward management in a number of areas, and have revised admission and discharge procedures. Specific emphasis is placed on making people feel at ease.

These changes are working well. The hard data is that our absconder rate has dropped from about 4 patients a month, to 4 a year.

e. Starting a supervised ambulatory care service

Supervised ambulatory care (SAC) is the process of arranging a supervisor to give patients their tablets on a daily basis at work or at school. Patient compliance, particularly in chronic diseases, is a worldwide problem. Patients tend to miss appointments and not take their tablets regularly. Having a supervisor is one of the best strategies for improving compliance. This relationship must not develop into a master-servant one, but be a mutual arrangement in which the patient reminds the supervisor and the supervisor reminds the patient.

No SAC service existed. Patients were then fully responsible for ensuring that they received their treatment. As much care was given on an outpatient basis, there was a very high drop out and low cure rate.

Developing a SAC system has been hard work. The process of interviewing patients to determine whether SAC is possible, meeting potential supervisors, arranging a patient-supervisor meeting, and then ensuring extensive follow up, is not easy to do. We visit our SAC patients at least once a month.

The success of the programme and the benefit to patients demands that it be expanded. 113 patients have started SAC. 111 (98.2%) have successfully completed their care, although we had to readmit 8 (7.1%) patients because their SAC arrangements were not working well.

f. Improving outpatient services

Most outpatients previously used to have a long wait outside the TB ward, only to be served their next dose of medicine through a window. There was no real review of their situation and junior staff often did the job. Other patients spent hours in the general outpatients department, only to get similar 'care'.

All TB patients now come directly to the TB ward. They are immediately welcomed, given chairs and attended to as soon as possible. They are carefully interviewed in a consulting room. Care is given according to preset guidelines. Problems that need to be referred to the ward doctor are specified. Little things like serving patients lunch have also helped to reinforce our approach. Patients are thanked for coming and if necessary get an appointment card. We have been surprised at how well patients have responded to appointment cards.

Patients under the improved service usually only need to come to outpatients once. This is because they have received the bulk of their care either in the hospital or through the SAC service. They come 2 months after leaving hospital or completing SAC. We use this visit to check that they are well, and formally discharge them. Patients get a letter stating that they are cured. This document is especially valuable to people who are going to look for a job.

g. Revising the role of the clinic

Less than 10% of patients getting TB care from our clinics in 1981 attended regularly. It is easy to blame the patient for this. However, if one considers the difficulties they face and the care that they receive, the outcome is not surprising.

The patient first has to overcome transport costs or has to walk a long distance. Problems in the drug supply system may mean that he gets no medicines. He also receives poor information about his condition from inadequately trained staff and receives no specific date on which to return.

In view of these factors we have revised the role of our clinics. They serve as one source of SAC, and support other SAC supervisors in their area. We have tried to include clinic patients under our improved approach and have trained our clinic staff for their job. One spin off of this training was that the nurses used their own initiative to trace a number of defaulters.

h. Co-ordinating services with Lebowa and the Pilgrims Rest magisterial district.

There was previously no co-ordination of services. This blocked improvements and led to fragmentation of care.

In 1982 and 1983 42,4% of our patients came from Lebowa and a few from the "white farming areas" to our north. Although we provide hospital care, we cannot follow these patients into their communities or contact potential SAC supervisors. This would be crossing borders.

We have tried to co-ordinate services, but have had little success. The problems are described later in this paper.

i. Developing staff commitment and skill

Tuberculosis care previously evoked little interest. It was seen as a boring and unchallenging aspect of the health service. Few nurses knew much about tuberculosis and none had developed specific skills in the field.

Staff training and motivation has been a key component in ensuring that our plans for an improved service have been put into practice. The success of the programme can be largely attributed to the two nursing sisters working on it. Their work has had an impact on their peers. Together we have run training programmes for hospital and clinic nurses.

New ward staff get in service training, with specific emphasis on attitudes. We emphasise their role in our improved approach to patient care.

Things have certainly improved, but long term changes are hard to consolidate. Special difficulties are the amount of time available for training and the rapid rotation of nurses from ward to ward.

J. Improving the record system

Patient information used to be kept in five different records. Even in the event of all five being available, we still had an incomplete picture. The record system has undergone extensive revision.

The most important improvement has been the introduction of a summary card (Appendix I) which is kept at the front of the patient's hospital bed-letter. On discharge four copies are made - for our records, for the bed-letter, for the SAC supervisor and for the patient. The patient-kept record is important because patients receive care from a number of different services, all of whom will need this information. This is particularly so for men who travel widely in pursuit of work.

WHAT ARE THE RESULTS OF THESE IMPROVEMENTS IN PATIENT CARE?

Data to indicate the impact of the tuberculosis service development programme are provided in Tables III and IV. Table III shows that in spite of an increase in patient load, an average improvement of 102,6% was gained in 1982 and 1983 over the previous two years. In all, the number of patients receiving enough treatment increased from 42,1% to 85,3%. In addition, many of those patients receiving care under the old service were unsupervised for much of the time. Under the new service supervisors actually observe patients taking all their tablets.

TABLE IIIPATIENTS RECEIVING ENOUGH TREATMENT

SERVICE IMPROVEMENT	YEAR	NEW PATIENTS	NUMBER RECEIVING ENOUGH TREATMENT	% RECEIVING ENOUGH TREATMENT	SUPERVISION
Before	1980	111	43	38,7%	Partial
Before	1981	186	82	42,1%	Partial
After	1982	157	132	84,1%	Full
After	1983	279	240	86,0%	Full

Table IV shows that supervised ambulatory care (SAC) has been arranged for 113 patients. 98,2% of these received curative therapy, although 8 (7,1%) had to be readmitted, because their SAC arrangements were not working well.

TABLE IVPATIENTS RECEIVING SUPERVISED AMBULATORY CARE (SAC)

SERVICE IMPROVEMENT	YEAR	SAC PATIENTS	NUMBER RECEIVING ENOUGH TREATMENT	% RECEIVING ENOUGH TREATMENT	NUMBER NEEDING READMISSION
Before	1980	-	-	-	-
Before	1981	-	-	-	-
After	1982	26	26	100,0%	1
After	1983	87	85	97,7%	7

WHAT NEXT?

We recognise that the next step is to consolidate our developments. At present we are extremely vulnerable to collapse and to weaknesses emerging. For example, the two trained nursing sisters who have helped develop the improved service will be lost to us from February 1984. In response, we have run a two week training programme. Whether we have managed to successfully develop the same vision, commitment and skill in the new nurses remains to be seen.

Once the service developments are stable we will feel happy that we now know how to diagnose and cure the TB patients already reaching the service. We will then begin to implement our contact and defaulter tracing systems. Contact tracing has started in a small way by inviting patients to invite their families to come for a free check-up. This is sooner than anticipated, so, we had to respond to our now well informed patients' concerns about their families.

In the future we hope to expand our contact tracing, especially to families of children with very high PPD measurements. We will also try to make contact with defaulters, initially by a personal letter and a general invitation over the radio. They will be offered a free check-up. Where we go from there will be determined by the response we get and by our constraints.

WHAT ARE OUR CONSTRAINTS?

Having read what we have done may well leave the reader feeling heartened. It is crucial, however, to balance our progress with what we cannot do.

Poverty

We have already pointed out that the solution to tuberculosis lies not in better health services, but in the reduction of poverty. We have little if any control over this factor.

Secondary Chemoprophylaxis

We also pointed out that the benefits to be gained from secondary chemoprophylaxis are beyond our resources. This is specifically relevant for those children requiring tuberculosis care for PPDs greater than 15mm.

Employment

We are unable to change unsatisfactory employment practices, such as job loss through illness, lack of unemployment benefits, and lack of job security. We are also unable to create employment opportunities. These factors have led to countless problems.

Some employers accept that the worker they fired was working poorly because of illness. They have re-hired them and agreed to supervise their SAC. Unfortunately we are seldom as lucky as this.

It is even more difficult to find work for the unemployed. Potential employers seem interested until we tell them that the worker will need SAC. Even though we explain that the patients are not infectious and that the only reason they are in hospital is to have their care supervised, we fail.

Most of our patients do not have jobs with unemployment benefits. Those that do tend to receive them after they are out of hospital, and the acute pressure on their family is gone. Needless to say, few have savings to fall back on.

Social Services

Social services are inadequate. They are usually unable or too slow to help.

Homelands

Homeland borders and structures limit us and fragment services. Just over half our patients come from Lebowa; but we may not follow them up at home, visit their families or organise SAC for them. We also cannot trace contacts or defaulters, or do case finding in Lebowa.

Communication between services is clumsy. In practice it never works, but in theory this is the process: If a patient from the area of Lebowa a few kilometres from our hospital defaults, we should report it to our head office in Giyani. They inform Lebowa's head office at Chunespoort, who inform the superintendent of Masana (the nearest Lebowa hospital). He asks his public health nurse to follow up the patient. She then travels about 40 km to our doorstep, to tell the patient to come back to Tintswalo.

Another problem. Masana has only recently adopted a similar drug regimen to us. Previously they rarely used rifampicin and were discharging patients to Tintswalo clinics to collect medicines on a monthly basis. Patients were not supervised. This left us with the difficult decision of whether to continue with unsupervised care and no rifampicin, knowing that it was likely to fail, or asking the patients to come to Tintswalo to receive improved care. If we did invite them we would be reinforcing the idea that Tintswalo is there to serve the "Shangaans" of Gazankulu, and that Masana is for the "Sothos" of Lebowa.

We tried to co-ordinate services and to set up information systems between the two hospitals. Unfortunately, we have not been successful - they are "Lebowa and we are "Gazankulu".

White farming areas

All services in the huge area to our north (except family planning) are delivered by a single general nurse. She has been very co-operative and is committed to her job. However, working on her own, the amount that she can do as a whole, and in TB care is rather limited. She tries to arrange SAC for patients who live in her area.

There are no services for BCG immunisation, PPD testing or X-ray taking. No SAC service exists. If a father dies or loses his job, his family may lose their rights to remain on the farm.

Community Participation

The potential for active community participation in the health service is low. This is a subject in itself, so only two aspects will be commented on. These are health beliefs and the accessibility of care.

Beliefs change slowly, as shown by the beliefs about the cause of tuberculosis explained earlier (that it is caused by one of three forms of improper sexual practice after the death of a relative) 40% of the same women said that people delayed attending for care at the hospital because they were at traditional healers. These community beliefs and the use of traditional healers for tuberculosis care clearly inhibit the potential for community participation.

People do not have easy access to health services. Distances, costs, and a feeling of alienation from the health service are all obstacles that lead to delays in seeking care. Most of our patients have been coughing for many months, or even years before they come for help. This delay not only affects the patient, but also the community, as many more people get infected.

Health Service Limitations

If we turn to the health service aspect of tuberculosis control we remain worried.

We are doing much better than we were, but if we do too well, our patient load will increase. This will lead to a decrease in the quality of care and other potential weaknesses will express themselves. As a result our failure rate will increase.

This happened in a small warning way in the latter part of 1983. During July, August and September a large number of patients were admitted, and the pressure of more than 100 patients in a 40 bed ward told. In September and October alone we had 22 patients who did not receive enough treatment, compared to only 13 in the first 8 months of the year. Three patients absconded in 4 days - more than ^{the} previous 8 month's total.

The ward doctor was also forced to discharge patients before they had completed their therapy. They were expected to continue treatment at home and come back weekly for check-ups and to receive more medicine. Needless to say this broke down in a number of cases.

We also have staff, vehicle and drug problems. Every department in the hospital suffers from staff shortages, so more staff for TB care would mean fewer for other tasks. The TB service needs a vehicle now and more than one as it grows. Unfortunately we only have limited access to vehicles as the hospital is short of transport. Drug costs will squeeze our budget, but we will be able to manage if we don't treat too many school children. These staff, vehicle and drug problems have forced us to reduce the number of patients receiving SAC, to restrict ourselves to caring for about 15% of the school children requiring tuberculosis treatment, and to hold back on expansion of the service.

CONCLUSION

We believe that we have made reasonable progress in developing TB services at Tintswalo. Unfortunately tuberculosis control will remain inadequate until we move out into the community to trace contacts and defaulters, and to actively find new cases. We will not be able to carry out such a large project successfully under current constraints and we see no prospect of these diminishing in the near future. However, we really wish they would; we need to improve our TB services more, because reduction in poverty is not playing its part.

REFERENCES:

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TINTSWALO HOSPITAL: TUBERCULOSIS SUMMARY CARD

P.O. 40/ Acornhoek 1360
Phone: Acornhoek 2

Village/
Location

GAZ	LEU	FARM	OTHER
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NAME:

Hospital
O.P.D. No.

Clinic No.

Age/Birth Date	Sex	Marital Status	Relig./Social Affiliation
	M F	M S W D Sep.	

Currently employed	YES	NO	?
At school	YES	NO	

Residence and
Postal Address

DATES ADMITTED

LANDMARKS:
Nearest Store

Other

Head of
Household:

Next of Kin:
Relationship:

DISCHARGED

EMPLOYER	SCHOOL PRINCIPAL	Name:
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TREATMENT STARTED

Address:

NOTIFIED

Work No:

Phone No:

Summary of arrangements
for ambulatory care:

Sign when arrangements completed:

ADMISSION INFORMATION

Wt adm. _____ Kg Disch. _____ Kg Coughing _____ Wk. Mo.

Extra Pulmonary T.D.

NO	YES (specify)
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AFB	POS	NEG	Other Lab report	PPD _____ mm	PPD _____ mm
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CHEST X-RAY

WORK ON MINES

Clinical condition:

Date	Reading	X-Ray No.
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What was mined?

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Did pt. work underground YES NO

Other illness:

Total years underground _____

ANY PREVIOUS T.B. TREATMENT?

YES	NO
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WHERE	WHEN	WHAT
1.	from to	(PTO for graph — full record if Tintswalo)
2.	from to	
3.	from to	
4.	from to	

Pertinent clinical information during admission

Further notes

