

SECOND CARNEGIE INQUIRY INTO POVERTY  
AND DEVELOPMENT IN SOUTHERN AFRICA

Health services within Soweto

by

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## INTRODUCTION

Soweto is an urban area zoned for occupation by blacks only. Economically it is an integral part of Johannesburg, and it is really a collection of the major black residential suburbs of the city. But because it is physically and politically separate from "white" Johannesburg, it is possible to consider it in isolation. The 1 or 2 million people who live there may be well off when compared to their compatriots in rural areas, but they are still a poor and depressed community. Their houses are grossly overcrowded, their schools are bad, many people are unemployed, many more earn only enough for the bare necessities of life, and alcoholism and crimes of violence are common. Overall the mental, social, and physical health of the community is poor.

There is no doubt that in such a community health services are useful, and can help to prevent certain serious diseases and to alleviate or even cure others. However the health services are much less important to health than are such major determinants as employment, wages, food and water supplies, sanitation, schooling, housing, fuel and clothing, opportunities for recreation, and hope for the future.

This paper deals with the health services within Soweto, and very largely with the services run by the three major health authorities, but these services must be seen in context. Although the services cost a great deal of money, and it is important to look critically to see if the community is getting the best value that it can for that money, the fact that many people in Soweto are unhealthy is not primarily the fault of the health services.

The rest of this paper is divided into six sections. First it looks briefly at three major determinants of health in Soweto, before going on to describe the great variety and cost of health services in the township. Then there is a brief introduction to the Community Health Centre Research Project, and the next two sections are based largely on the findings of this project. The first of these sections deals with co-ordination and decentralisation of services, and the second with evaluation of services. Finally there is a brief section of conclusions.

## MAJOR DETERMINANTS OF HEALTH

Some of the major determinants of health have been mentioned in the introduction. Among the most important of these are housing, water supplies, and sanitation, and these will be reviewed briefly.

In appearance Soweto is very similar to many South African black townships, the main difference being that it is bigger. It starts about 10 km South-West of the centre of Johannesburg and extends West for another 15 km along the Old Potchestroom Road, covering a total area of about 60 square kilometres. The rows and rows of "matchbox" houses are drab and uniform, but not squalid. Most side streets are unpaved and contain some litter, but main roads are tarred and the ground around most houses is swept and tidy. A program of electification is in progress, but most occupants still use coal stoves for both cooking and heating, with the result that the township is often covered by a pall of smoke, which in winter turns to thick smog. Each house is provided with clean piped water from the Rand Water Board, and each house has a toilet connected to a water-borne sewerage system which feeds into one of the main Johannesburg sewerage disposal works. Blocked toilets, burst water pipes, and cuts in the supply of water are common and very annoying, but from the public health point of view the water supply and sewerage systems are reasonable, and they are being upgraded.

However, as indicated in the introduction, one of the major problems that does militate against health in Soweto, is overcrowding. Of the 101 934 houses listed by the West Rand Administration Board (WRAB) in 1978, 97% consisted of four rooms (excluding bathroom) or less (1). If senior health officials are correct when they estimate the population of Soweto as being 2 million, then there must be nearly 20 people for each house. The official WRAB estimates for 1978 were only seven people per house, but even WRAB officials admit privately that the true degree of overcrowding is much worse than this, and stories of 30 people living in a four-roomed house are not uncommon.

Overcrowding is getting worse partly because of the steady drift of people from rural to urban areas, and partly because of the natural population increase, without any correspondingly rapid increase in the supply of houses. Between 1970 and 1980 only 5000 houses were built in Soweto, an average of only 500 new houses a year, enough to accommodate only 3 500

extra people a year at the official figure of 7 people per house. Yet in 1981 Baragwanath Hospital and its clinics delivered over 29 000 babies, most of them destined to live in Soweto. Assuming a death rate among 2 million people of about 4000 deaths per annum (20 per 1000), that leaves about 25 000 extra people to be accommodated each year in Soweto from natural increase alone.

One result of the increasing overcrowding has been the appearance in the past three years of large numbers of "backyard shacks" or "garden huts" attached to Soweto houses. Most of them are said to be occupied by people who are legal residents who simply cannot fit into the houses any longer. Another result of the overcrowding is the severe strain it puts on already overloaded water and sewerage systems.

It is against this background of severe urban overcrowding that any analysis of the health services must be seen.

## VARIETY and COST of HEALTH SERVICES

Health services within Soweto are provided by a wide variety of people and organizations from both the government and the private sector. The former consists of central, provincial and local government health authorities, while the latter consists of private general practitioners, voluntary and welfare organizations, and alternative healers.

A number of services outside Soweto also help to provide health care to the people of the township. The most important of these is Baragwanath Hospital which is situated just outside Soweto and which provides hospital care for those referred to it. It also provides very important emergency and maternity services. However the hospital is greatly overextended and tries its best to avoid taking over primary care which can be provided within Soweto. The other important sources of health care outside Soweto are the pharmacies and the General Practitioners in other areas. There is only one pharmacy within Soweto, although many of the little shops also sell patent medicines, but there are many pharmacies in central Johannesburg. There are also a number of General Practitioners with consulting rooms near the bus and train terminuses in Johannesburg. The degree to which both pharmacists and city General Practitioners are consulted by the people of Soweto, and the extent of the care provided, is unknown.

The most widespread health services within Soweto are almost certainly those provided by alternative healers such as sangomas, inyangas, and prophets. It is estimated that there may be as many as 10 000 such people practising in Soweto, although many of them probably consult only on a part-time basis. There is no communication, in either direction, between them and the "orthodox" or "western" medical services, and this would seem to be unfortunate because people often appear to perceive a need to request, and to pay for, consultations with both orthodox and alternative healers for the same illness.

This paper is about health services within Soweto, where people live, and so will not cover Baragwanath or other services provided outside the township itself. Also, because of the lack of data on alternative healers, it will focus on orthodox medical services. These are provided largely, but not exclusively, by the government health authorities.

Within Greater Soweto there are five separate government health authorities. These are:

1. The Department of Health and Welfare (STATE HEALTH)
2. The Transvaal Provincial Administration Department of Hospital Services (TPA)
3. The Johannesburg City Health Department (CITY HEALTH)
4. The Health Department of the Transvaal Board for the Development of Peri-Urban Areas (PERI-URBAN)
5. The Health Department of Roodepoort (ROODEPOORT)

The first two provide certain health services in all areas of Soweto, while the other three all provide essentially the same services as each other, but in different parts of Soweto. City Health covers 67% of the houses in the township, Peri-Urban 28%, and Roodepoort the remaining 5%.

And as if this were not all complicated enough, there are yet another four authorities which can have a direct influence on health services within Soweto. These are:

- The Soweto Community Council
- The Diep-Meadow Community Council
- The Dobsonville Community Council
- The West Rand Administration Board (WRAB)

The three community councils are now theoretically the local authorities in Soweto and so responsible for local authority health services. In practice however, although most of the funds for these services come out of their budgets, the work is done for them by City Health, Peri-Urban and Roodepoort on an agency basis. The other source of funds for the local authority services is State Health, which subsidises salaries and supplies certain drugs. The West Rand Administration Board has only recently handed over certain local authority powers to the community councils. Many of the senior community council officials are people who have been seconded to those posts from WRAB, and so it is not perhaps surprising that WRAB is still regarded by many people, including health officials, as the "real" local authority in Soweto.

Concerted action to improve all health services in the whole of Soweto would therefore involve nine different authorities, each with their own beaurocracy, and in any one part of Soweto action may have to be sanctioned by any or all of five different authorities ( WRAB, a community council, and three independant health departments). There is also the private sector. About 20 registered medical practitioners have consulting rooms in Soweto, there are, as already indicated, very large numbers of alternative healers, and there are the welfare organizations that provide health related services within the township.

The position in a typical area of Soweto can therefore be summarised as in Table I.

<u>Health Services Provided by:</u>
State Health
TPA
City Health
(WRAB)
(Community Council)
Private General Practitioners
Alternative Healers
Voluntary and Welfare Organizations

Each of the three health authorities that function in any one area has a separate "base" or head office outside Soweto, and TPA and City Health each runs a set of clinics independantly of the other. In some areas of Soweto the TPA and City Health clinics are housed in the same grounds, while in other areas they are some distance apart, but in all cases they are physically and organizationally quite separate. State Health has no buildings in Soweto and runs two of its services direct from its office in central Johannesburg. Its community psychiatric staff however use some of the City Health premises on certain days of the week, while its dental staff use TPA premises. Theoretically the three different health authorities have different responsibilities, but because they are all dealing with the same community and the same patients, there are inevitably areas

of overlap. For example two of them offer psychiatric services, a different two offer school health services, and all of them are involved in family planning. The services provided by the three major authorities are:

#### State Health

- Community (or chronic) Psychiatric services
- Dental services
- School Health services
- Family Planning motivation

#### TPA

- Ante-natal, Delivery and Post-natal services
- Polyclinic "curative" services
- Services for acute mental illness
- Family Planning services
- District Nursing services
- (Ambulance services)

#### City Health

- Environmental health services (pest control and the inspection of water and sanitation, but not the provision of these services which is responsibility of the community council)
- Tuberculosis services
- Immunisation and Child health services
- Family Planning services
- Community Health Nurse services

- School Health team
- Health Education

The major welfare organizations with employees working in Soweto are:

- African Children's Feeding Scheme
- Child Welfare Society
- Cripple Care Association of the Transvaal
- Family Life Centre
- National Council for Crime Prevention and Rehabilitation of Offenders
- Nutrition Advisory Services
- S A National Council for Alcohol and Drug Dependency
- Soweto Council for Care of the Aged
- Soweto Society for Marriage and Family Life
- Witwatersrand Mental Health Society

In addition the community councils employ a few social workers, but for a number of years they have been stretched beyond capacity, and in 1980 a decision was taken to withdraw them from case work so that they could concentrate on "community development".

The picture is a confusing one, but one thing that does emerge is the scale of health services in Soweto. A single TPA clinic may have a staff of 100 people, and between them the five health authorities employ over 1500 people to provide health services within Soweto, at a cost of several million rand per year. Added to this are 20 private general practitioners, about 50 people employed by welfare organizations, and perhaps 10 000 alternative healers. The total cost of these private sector services is not known, but it must also be considerable.

## COMMUNITY HEALTH CENTRE RESEARCH PROJECT

In 1979 the Community Health Centre Research Project was set up at the University of the Witwatersrand. The major objective of the project was to see to what extent it was possible to use the provisions of the 1977 Health Act to co-ordinate the activities of all providers of health care in a particular area of Soweto. This objective was spelled out as being:

"To make more efficient use of the money, manpower, and other resources available for the promotion of health by drawing together the different elements of the fragmented health service available to a particular community. These elements include the various health authorities and also the private sector and voluntary welfare organizations."

Other objectives included the evaluation of health services, and the promotion of community involvement.

Senior officials of all the health authorities expressed support for the project, and were actively involved in it. A small research team was appointed and it was agreed that they should focus mainly on the Senaoane area. This area comprises about 10% of the houses in Soweto, it is thought to be typical of the township as a whole, and it contains a TPA clinic, a City Health clinic, State Health services, and private sector services.

Many of the conclusions reached in this paper are based upon the experiences and observations of members of this research team as they tried to carry out their brief. Examples will be given to illustrate certain points, but for more detailed evidence reference should be made to the Final Report on the Project, put out by the University in April 1982, and to articles published on specific services (refs. 2 - 8)

## CO-ORDINATION and DECENTRALIZATION

Part of the reason for choosing Senaoane as the area in which to try and co-ordinate services through the Community Health Centre Research Project, was that the TPA and City Health staff were already working in close physical proximity to each other. The clinics had been on adjacent parts of the same stand, and when the City Health building was burnt down in 1976, their staff responsible for child health services had moved into part of the TPA building. This seemed an auspicious start to closer co-operation. Plans were already being made to re-build the City Health clinic, and with some extra funds available from the project it was agreed to turn the building round to face the TPA clinic, and to add a link building incorporating a kitchen, dining room, health education room, and staff offices. The whole TPA, City Health, and link building complex was then referred to, optimistically, as Senaoane Health Centre.

When the services at Senaoane were examined, it soon became clear that the different services functioned quite independantly of each other. There were indeed areas of duplication and overlap in which better co-ordination could lead to saving time and money, or at least to improving the service to patients. Generally speaking senior officials were not surprised by the evidence of inco-ordination, but it proved to be extremely difficult to institute any appropriate changes.

The most obvious example of duplication at Senaoane was the existence of two separate family planning clinics within 100 metres of each other. TPA and City Health ran essentially identical family planning clinics. Both were free, and both were fully subsidised by, and run at the specific request of, the Department of Health (State Health). Everybody, including the staff running the two clinics, agreed that two nursing sisters, with some clerical help, could easily attend to the combined total number of patients seen each month. However, between the two clinics, there were in fact three sisters and two part-time clerks employed to do the work.

It was agreed by all parties in Johannesburg and Soweto that the sensible arrangement would be for City Health to take over the complete service, so saving State Health the cost of at least one nursing post, and allowing TPA to allocate their staff to do family planning somewhere else in Soweto. All the appropriate arrangements were made, and then it transpired that nobody had consulted the family planning section of State Health head office in Pretoria. Despite the fact that by this time plans for several

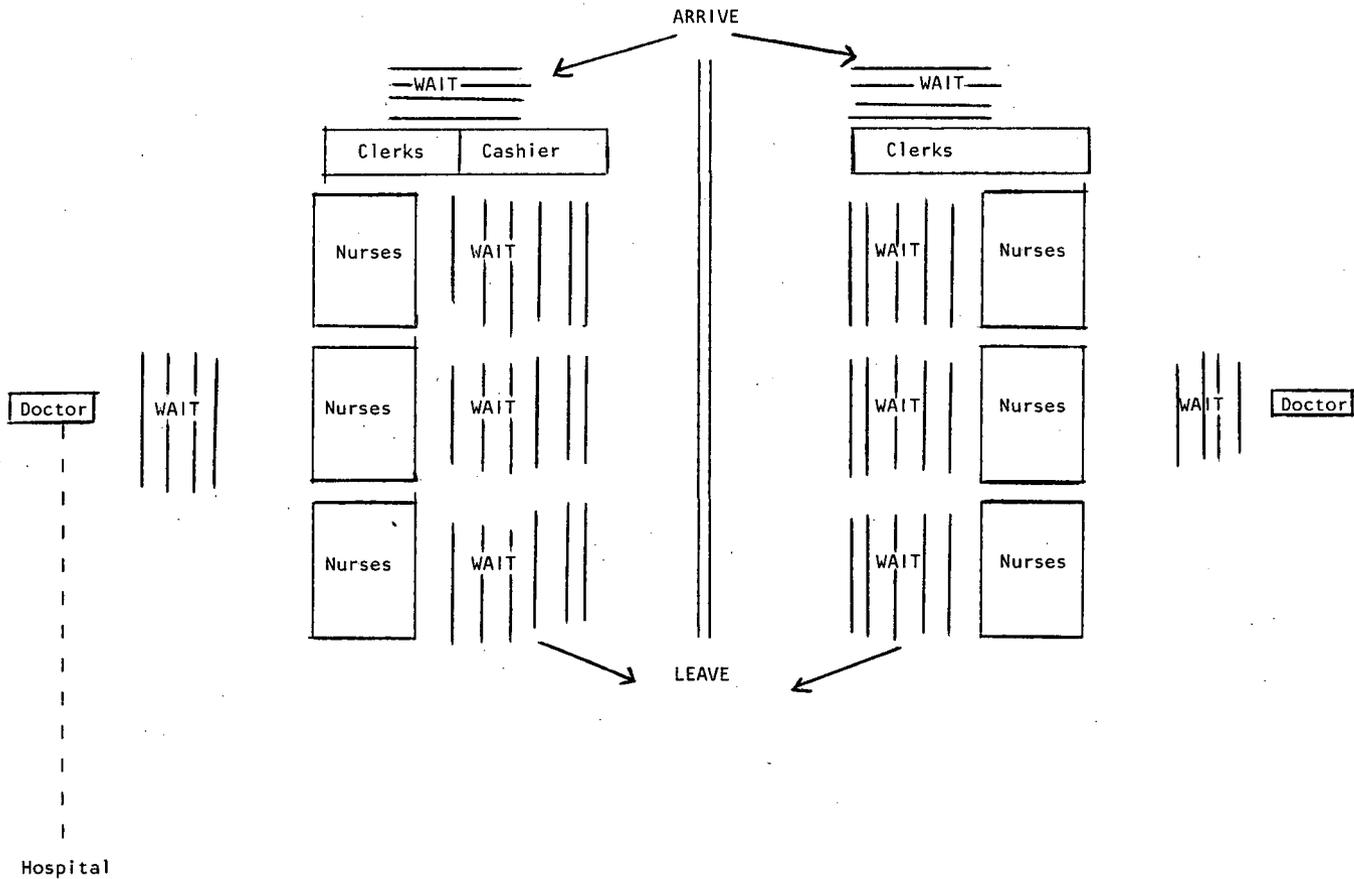
new health centres in Soweto were well advanced and that in each of them responsibility for family planning had been allocated to City Health, a recommendation came from Pretoria that TPA should take over all family planning services at Senaoane. City Health authorities were outraged, and the net result, two and a half years later, is that both family planning clinics are still operating side by side at Senaoane.

An example of services that overlapped although they did not completely duplicate each other, were the home visits to newborn babies by both TPA midwives and City Health Public Health Nurses. The former visited the home daily for the first ten days after delivery, while the latter visited two to four weeks after the birth, yet there was no communication between the two groups of nurses. The visits were very expensive in terms of both time and transport, and yet the Public Health Nurse went not knowing what the midwife had found, or if her own visit was really necessary. The overall service could have been greatly improved, and some visits saved, if the midwife could have asked a few more questions once she was in the house, and if she could have communicated her findings to the Public Health Nurse. Ideally they should have worked from the same office, but they could at least have used a common record.

The multiplicity of patient records at Senaoane, and everywhere else in Soweto, is in fact one of the most wasteful results of the fragmentation of services. Much of the basic information about patients is duplicated several times over, other relevant information is found only on some records and so is available to some health workers and not to others, and much time is wasted by both clerks and patients in completing, filing, and retrieving several different records for one patient. This can best be illustrated by an example which, although fictitious, and although it appears ridiculous, is perfectly possible.

- A woman living in Senaoane might attend the City Health family planning clinic.
- If found to be already three months pregnant she would be referred to the TPA ante-natal clinic.
- For treatment of dental caries she would be referred to the State Health dental clinic.

Figure 1: Staffing Structure at Senaoane --- A Patient's View



- After delivery she would be visited at home, separately, by both a TPA midwife and a City Health Public Health Nurse.
- The TPA midwives who delivered her and visited her post-natally would refer her to the TPA family planning clinic.
- If pelvic sepsis was suspected she would be referred to the TPA polyclinic (adult section).
- If they thought she had post-puerperal depression they would refer her to the State Health psychiatric clinic.
- Three months after delivery the woman should bring her child to the City Health immunization clinic.
- If they found the child to be obviously sick they would refer it to the TPA polyclinic (paediatric section).
- Having diagnosed pneumonia and taken an x-ray they might well decide that this was tuberculosis and refer the mother and child to the City Health TB clinic.

Within a year this woman could have been to nine different clinics, all within the grounds of Senaoane Health Centre, but all with separate nursing staff and all with separate records. She would also have been visited at home by two different nurses. Each time she was referred to a new clinic she would have to start by going to the appropriate clerks, giving her name and address and occupation, and when she had made her way through the appropriate queues, she would have to explain herself and her problems once more to a nurse she had not met before. To health workers it may be obvious that the person taking temperatures is an assistant nurse, the person consulting is either a Public Health Nurse or a Primary Health Care Nurse, the person giving anti-TB injections is a TB nurse, the person giving penicillin injections is a general nurse, and the person giving depo-provera injections is a family planning nurse, but to most patients they are all nurses. Whatever picture health workers have of the structure of their services, to most members of the public the services are guarded by clerks, dominated by waiting areas, and run by nurses, as illustrated in figure I.

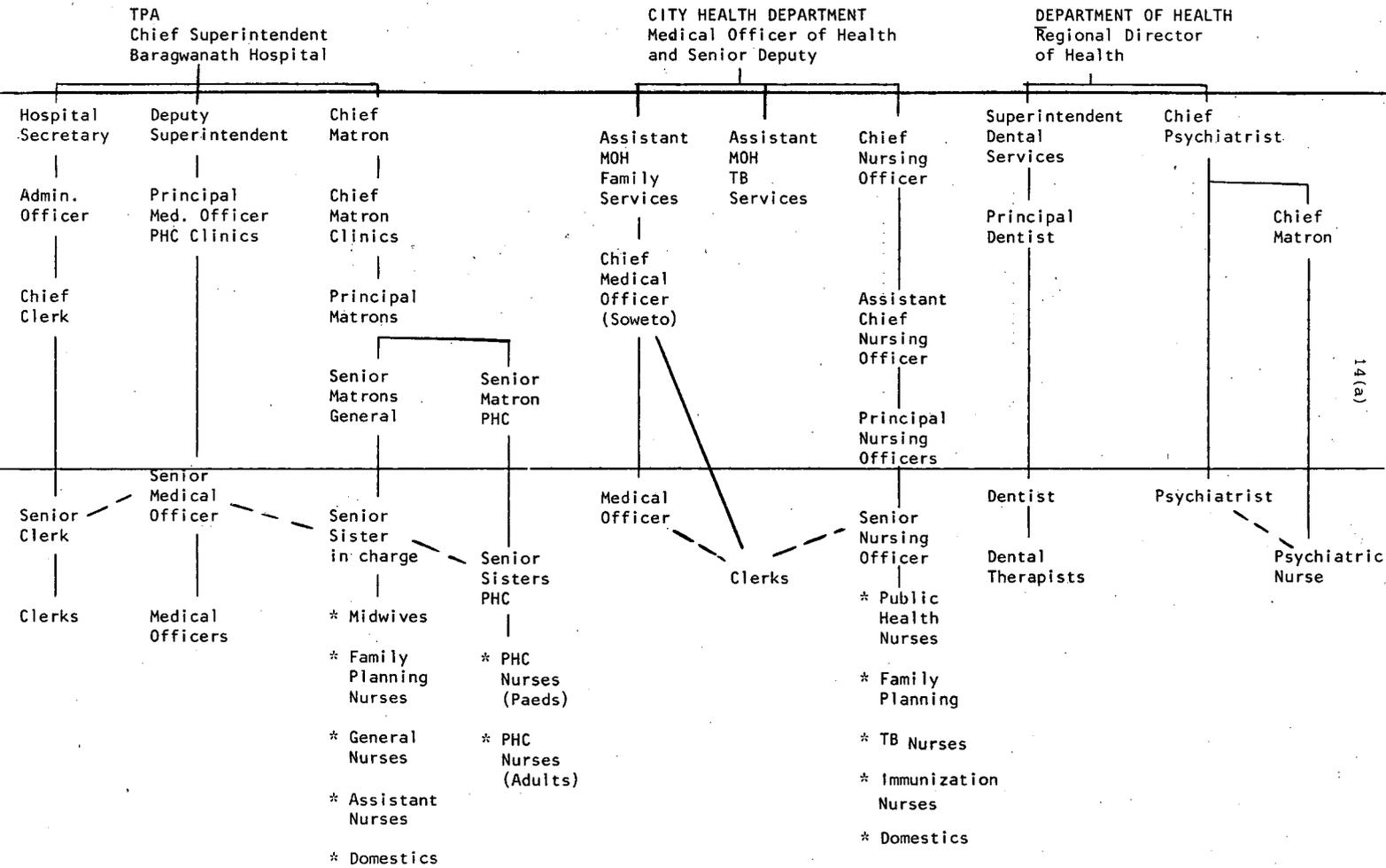
But the existence of different clinics, each with their own records, is a problem for, and wastes the time of, staff as well as patients. In the example given the child's immunization card and TB record would have been filed in one pocket, together with the birth notification form, but they would be separate from the other seven records which would be scattered in different places through the health centre.

The only way for a health worker to piece together the whole picture on this mother and child would be to take a full history from the mother and then to go round to all the separate records and transcribe all the relevant information. It would be time consuming but reasonably easy for a nurse to do this from services within her own health authority, but she would need the permission of supervisors from both authorities before she could gain access to the records of services run by another authority. This came out clearly at Senoane in 1979 when a request was made for the City Health Public Health Nurses to have blanket permission to examine the TPA polyclinic records of their patients. The relevant TPA supervisor was horrified and permission was refused.

It may be necessary for nurses to specialise, like doctors, in particular services in order to acquire particular skills, but there is a cost to the patient of such specialisation, and it should occur only for good medical reasons. There is no good reason, for example, why Primary Health Care Nurses who are trained to diagnose and treat childhood illnesses and at the same time to encourage immunization, should not be able to either give or prescribe immunisation as appropriate. At present in Soweto, however, they are not allowed to do so because they are TPA staff and immunization is a City Health responsibility. Some of the ill-effects of specialisation and patient referral can be overcome if all people seeing the patient write their findings on the same record, or at least if all their records are filed together. In this way different health workers can know exactly what their colleagues have already found in, and prescribed for, the patient, and can adapt their own consultation and management accordingly.

The failure to rationalise the family planning services at Senoane, and the multiplicity of record systems, arose not only because of a lack of co-ordination between health authorities. Equally important was the lack of decentralization. In fact the lack of decentralization within all three authorities was one of the major obstacles to effective co-ordination. The research team felt strongly, on many occasions, that left to them-

Figure 2: Staffing Structure for Senaoane



14(a)

selves the 150 people working at Senaoane could relatively easily have organized an efficient and comprehensive service to the community. But the Senaoane staff had very little freedom to make decisions, and if they did do anything at all out of the ordinary they were constantly looking over their shoulders for signs of approval or disapproval from their supervisors.

Although the health centre was relatively isolated from the authorities' head offices, the different services of even one authority functioned relatively independantly of each other. For example the TPA midwives and TPA clerks identified more closely with the Baragwanath midwives and clerks respectively than with each other. This greater responsibility to the particular service than to the health centre was encouraged in two important ways. It was promoted firstly by the existence of different supervisors outside the health centre to whom the different services were responsible. The second factor was the way in which individuals could be, and were, moved at a moment's notice by their supervisors from a particular job at Senaoane to the same job somewhere else.

Although there were only three employing authorities, Senaoane Health Centre was in many ways a collection of nine independant hierachies. These hierachies existed side by side and no-one had the responsibility, or the authority, to provide a comprehensive health service. A patient's view of Senaoane was given in Figure I, but an administrator's view of the services would be more like that pictured in Figure II, which shows the different services and their nine lines of authority, and the ways in which they related to each other. The top two sections of the figure include senior officials and "middle management", the supervisors who visited Senaoane. The bottom section shows the staff who actually provided the services.

In summary then, the lack of co-ordination and the lack of decentralization at Senaoane gave rise to a number of problems that affected the supervisors, the staff actually working at Senaoane, and the patients. Some of the problems of communicating about patients have been illustrated in the story of the woman referred on and on from one service to the next, but there were also other problems. These included the difficulty in forming a clear picture of what was happening, the difficulty in filling gaps between the services, and the time wasted by both staff and patients. The divisions between services, and particularly the divisions between authorities, aggravated conflicts between staff, and different styles of administration caused confusion. The different salary scales and different conditions of service of the three authorities caused surprisingly little friction at the health centre itself, but their existence was one of the major factors that led people in at least one authority to resist any greater co-ordination which they perceived as a step towards integration of services and equalization of salaries and conditions.

Finally it seems appropriate to conclude this section by quoting the summary on co-ordination from the final report on the Community Health Centre Research Project.

"The most important finding of the project is that attempts to co-ordinate the activities of all concerned to render one comprehensive community oriented service to the people have largely failed.

Despite bringing different individuals and groups together on a regular basis, despite the appointment of an independent director with ready access to the most senior officials in all the health authorities, despite the avowed commitment of these health authorities to be as flexible as possible to make co-ordination succeed at Senaoane, and despite all attempts to persuade staff at all levels of the importance of co-ordination, Senaoane Health Centre cannot be described as a comprehensive community health centre.

Some progress has been made in drawing people closer together and in making the services more comprehensive. Physical barriers have been removed, and some sharing of facilities implemented, while old services have been expanded and experimental new services introduced. Social workers employed by a wide variety of voluntary and welfare agencies have been drawn into the health centre, and a scheme has

been tried out for co-ordinating the work of different health professionals working in schools. The research team has also contributed to the development of plans for new and upgraded community health centres in Soweto.

But even in those areas where some progress has been made in drawing people together, the progress has been achieved at an enormous cost in terms of time and effort, and the stability of some of these relationships is very questionable. We have no doubt that independent organizations can work harmoniously together, and that co-ordination of efforts is at times possible. However experience at Senoane shows that even under the 1977 Health Act, which allows for great flexibility, it can be extremely difficult if not impossible to achieve close co-operation between and co-ordination of the work of three existing powerful health authorities.

Within Senoane Health Centre itself there are multiple lines of authority and each line starts outside the health centre. We have tried to achieve co-ordination by consensus with each line of authority having the right of veto. Many individuals have therefore had ample power and the opportunity to block particular moves, and they have often done so for a variety of personal, historical, and local political motives. The problems of eliciting the co-operation of all levels of staff, and especially of middle management, are common to the reorganization of any large concern such as the health care system, but they are greatly magnified by the continued existence of multiple lines of authority.

It is our conclusion therefore that merely trying to co-ordinate the efforts of independent health authorities in one health centre is an extremely inefficient and ineffective way of trying to achieve a comprehensive service."

Two major recommendations were made with regard to co-ordination at the end of the three year research project. The first was that in any one area or at any one community health centre there should be only one authority responsible for all services. The second major recommendation was that there should be only one line of communication between each health centre and the responsible authority. To this should perhaps be added the third recommendation that as much decision making power as possible should be delegated from head office staff to health centre staff.

## EVALUATION OF SERVICES

### A. GENERAL

Apart from trying to promote the co-ordination of services in the Senaoane area, one of the main objectives of the Community Health Centre Research Project was the evaluation of services. When this was attempted, one of the most important facts to emerge was the lack of defined goals within services. Perhaps because of this there was no routine evaluation or even monitoring of the effectiveness of services. The resources of money and skilled manpower available to these services are limited. Yet health planners commit large portions of these scarce resources without the benefit of any objective evaluation of the effectiveness of the services to which these resources are going.

When trying to determine the effectiveness of a health service in reducing morbidity or mortality, it is useful to consider four questions:

1. Is the service necessary in that community?
2. Is it accessible? i.e. Does it reach most people who need it?
3. Is it acceptable? i.e. Do people who need it continue to use it?
4. Is it of high quality?

Services that do not meet all these conditions may still be very useful to some individuals in the community, but it is only if all four conditions are met that a service is likely to be effective in reducing morbidity and mortality in that community.

The evaluation of services at Senaoane took the form both of clinical impressions based on close observation of all services, and of more formal epidemiological studies of some of them. Among the latter, studies of the hypertension service and its patients (2, 5, 6), of the TB service (7), of the clinical competence of Primary Health Care Nurses (8), and of queuing and patient flow at the polyclinic (3) have already been published or are in the press. Preliminary results from other formal studies which have not yet been published were included in the appendix to the final report on the project. Among them were studies of the mental health services, of

measles immunization, of teenage pregnancy and the quality of ante-natal care provided to these young mothers, and of the accuracy of some of the statistics kept at the health centre.

Data on morbidity and mortality rates in Soweto are not readily available. But, from Medical Officer of Health reports for Johannesburg, from statistics of diagnostic categories kept by the Primary Health Care Nurses, and from diagnoses of patients admitted to Baragwanath Hospital, it is clear that among the common diseases in Soweto are ones for which effective preventive or curative measures are available. Most of the services provided by the health authorities in Soweto have the implicit goal of reducing morbidity and mortality due to these diseases, and so are necessary. The first pre-condition for these services being effective is therefore met.

The services also attend to very large numbers of people. In 1983 there were over 746 000 attendances at TPA clinics in Soweto, and over 275 000 at the City Health ones, but these numbers may be misleadingly impressive. A large number of people with chronic conditions are expected to come at least 12 times in the year, and 86% of those attending the City Health clinics in 1983 were making repeat visits. In a study of adults attending the TPA clinic at Senaoane in 1980, 73% were making repeat visits. For a population of 2 million the number of visits to the orthodox health services within Soweto is very low, and it is clear that many of those who should be attending, are not. In fact one of the main points to emerge from the evaluation of services was that a number of the services such as those for hypertension, sexually transmitted diseases, mental health, and measles immunization, do not ever reach many of the people that need them. Another fact that came out very clearly is that although teenagers were generally "good" ante-natal clinic attenders, patient compliance in attending regularly for long term care of hypertension, tuberculosis, mental illness, was very poor. In some cases at least this seemed to be related to a lack of understanding of the need to return for further treatment. Despite the scale of services in Soweto therefore, their accessibility and acceptability seems to be limited.

The quality of care provided to patients who do attend however, is often good. For example the Primary Health Care Nurses not only measure the blood pressures of adult patients and follow the management protocols, but they also appear to be as good (or as bad) as paediatricians in detecting clinical signs in children. At the ante-natal clinic midwives do take blood for various tests and do record the results, and the patients who

are VDRL positive do get treated. The worst aspect of care that was documented at Senaoane was the time wasted by patients on a single visit to the health centre. In this study patients spent an average of over two and a half hours waiting in a succession of four or five queues for a total of 24 minutes of service from the polyclinic staff. The fact that patients all over the world are commonly subjected to such long waits for attention, is no justification for such subjugation.

Overall it appears that the services provided by the authorities within Soweto are necessary, and that they are of a reasonably high quality, although their effectiveness is limited by their limited accessibility and acceptability. They also lack routine evaluation or monitoring of their effectiveness.

#### B. CONTROL OF INFECTIOUS DISEASE.

One of the most important contributions that health services can make to the health of a community, is in helping to limit the spread of infectious diseases. And in this context it is generally accepted that the important factors influencing the spread of most infectious diseases in a community are:

1. The quality and quantity of water supplies.
2. The effectiveness of sewerage disposal.
3. The immune status of the community and the effectiveness of the immunization services.
4. The degree of crowding, the extent of sharing, and the standards of personal hygiene, in the homes.

Although, as emphasised earlier, Soweto homes are very crowded, and although many people do share eating utensils, towels, etc, most houses are kept very clean, sewerage disposal is generally effective, and water supplies are adequate for health. The fact that cholera has not spread in Soweto, although there have been individual cases of the disease in the township in the past three years, and although the causative organism has

been identified in the sewerage, is indicative of reasonable water supplies, sanitation, and personal hygiene.

The effectiveness of immunization services to children under the age of six months is probably the major reason why diphtheria and tetanus are so uncommon in Soweto (9). And the effectiveness of immunization, the spread of vaccine virus, and the underlying immune status, together explain the equally satisfactory rarity of poliomyelitis in township (9). However measles is still quite common, and kills a number of children in Soweto every year. Most of the 1627 people with measles admitted to the C M R Infectious Diseases Hospital in 1980 and 1981, and most of the 60 who died, were from Greater Soweto (9). In a small survey of children presenting at Senaoane with measles in 1981 it was found that half of the children had been born in the area, and half elsewhere, but that since the age of six months only one had been to the immunization clinic (and had been immunized). It seems clear that the immunization services still do not reach enough of the children over the age of six months who are at risk of contracting this disease that is so dangerous in undernourished communities.

#### C. HEALTH EDUCATION and COMMUNITY INVOLVEMENT

The promotion of health education and community involvement sounds progressive, and both are extremely fashionable concepts among health planners in South Africa at present. Increasing health education and increased community involvement are advocated for all health services. It seems appropriate therefore to complete this section with a brief evaluation of what these concepts mean in the context of health services within Soweto.

There is no doubt that people in general, and poorly educated people in particular, can benefit enormously from knowing more about what causes ill-health and about what contributes to health. It is also generally accepted that health programs are likely to be most effective if the communities themselves are involved in the planning and execution of those programs. But this does not mean that all health education programs are beneficial, nor does it mean that all forms of community involvement promote better health.

The goals of health education programs are usually expressed in terms of changing people's knowledge, attitudes, and behaviour, and no formal epidemiological evaluation of any such health program in South Africa has yet been reported. Furthermore, health education, like any other form of medical intervention, may have unwanted side-effects and may even cause iatrogenic disease, but these side-effects may not be detected, and will not be reported, unless people look for them. One possible and potentially dangerous side-effect is that by focussing on diseases and on the measures that individuals can take to prevent or cure them, health education may actually divert attention away from the major determinants of health mentioned at the start of this paper.

For example, much of the health education in Soweto, as in most of South Africa, and much of the promotion of community involvement, seems to be directed at promoting self-help in health care. This in itself would seem to be very laudable. Helping patients to help themselves is an excellent idea, and people must certainly be encouraged to take as much responsibility as possible for their own health. But there is a danger. There is the danger that ill-health, disease, comes to be seen both by health care workers and by the people themselves, as the "fault" of the patient. For example,

"Gastro-enteritis occurs in a baby because the mother fails to clean the feeding bottle properly";

"tuberculosis spreads because an old woman with TB spits";

"measles kills because parents fail to take a child for immunization".

At one level all this may be true, but it is only part of the truth, and it may even obscure more important aspects of the full picture. Focussing on the dirty feeding bottle as the cause of gastro-enteritis may easily distract attention from the economic necessity which drives a mother to return to work and to stop breast feeding, and it may also distract attention from the advertising which persuades her that formula feeds are just as good as breast milk. Focussing attention on the old woman who spits tubercle bacilli may distract attention from the overcrowding and the malnutrition which predispose her family to acquire the infection. Focussing on the failure of parents to bring children for immunization distracts from the undernutrition which makes measles more severe, and from the hidden costs and inconvenience of a visit to the health centre.

When the concept of community involvement was explored at Senaoane it soon became apparent that community involvement meant very different things to

different people, and that it could take many forms. To some health administrators community involvement would be present when community members served on advisory boards, to others when they assisted patients on a voluntary basis, to others when they raised money for the purchase of additional equipment, and to still others when community members practised self-care instead of coming to the health service. The research team found it useful therefore to try and classify all community involvement in health services into one of six forms:

1. Self care or home care
2. Emotional involvement in health services
3. Advisory involvement in health services
4. Supplementary involvement in health services
5. Fundamental involvement in health services.
6. Fundamental involvement in health

The first four types of community involvement listed above all exist to a greater or lesser extent in Soweto, but they do not give the community any power over health services. This is because the health services in Soweto, like almost all health services, are run by health professionals who may be answerable to politicians, but who in fact determine themselves to a very large extent how services will be run. Involvement of the community in any fundamental way in the health services would mean that the health authorities would have to give some real power back to the community. It was suggested for example at Senaoane that the health authorities might make R10 000 (about 1% of the budget for the health centre) available each year to a local community committee for them to spend on improvements to the health centre, and so give that committee some fundamental involvement in the health centre. Some of the authorities were intrigued by the idea, but nobody tried to implement it.

It is not surprising that there is no fundamental involvement of the local communities in the health services in Soweto, such involvement is rare anywhere in the world. But talking about community involvement may raise expectations of that involvement giving people some control over their services. It is important therefore that health authorities should define

clearly what they themselves mean by community involvement before they invite members of the community to participate. Finally it must be remembered that fundamental involvement in all the determinants of health is much more important than mere involvement in health services, and is part of being involved in the political control of society.

## CONCLUSIONS

Although the 1 or 2 million people of Soweto are well off compared to most people in rural areas of Southern Africa, they are nevertheless a poor and deprived community. The standards of some of the major determinants of health are reasonable, but the standards of others are very unsatisfactory. Health services are provided by a wide variety of people and organisations. These include five different health authorities, together employing about 1500 staff and providing a wide range of services within the township. In addition there are private medical practitioners, welfare organisations, and large numbers of alternative healers. A very large amount of money is spent both by individuals and by the authorities on these services, and the potential for overlap, confusion, and wasting of resources is considerable.

Between 1979 and 1982 a concerted attempt was made to evaluate and co-ordinate all health services in one area of Soweto. From the evidence collected in this project a number of points emerge:

1. There is an almost total lack of communication and co-ordination between the different providers of health care. Under the present system of health service organisation with its multiple lines of authority, it is extremely difficult to improve this situation and to co-ordinate the efforts of all health workers in any one area.
2. Control over different services and categories of staff is highly centralised, and this discourages the staff at a health centre from feeling responsible for the health of the local community. It also inhibits co-ordination.
3. There is no routine evaluation or monitoring of the effectiveness of the different services.
4. The standards of water supplies, sanitation, personal hygiene, and immunization are sufficient to prevent the spread of most epidemic diseases, but measles is still common.
5. Most of the services seem to be necessary, and the quality of care provided to those who attend is often good. But the effectiveness of some of the services is limited by the fact that they often reach only a proportion of the people who need them. Patient compliance with

treatment for chronic conditions is also often poor.

6. Most health education stresses individual responsibility for health and so tends to divert attention away from some of the underlying socio-economic causes of ill health.
7. The degree of community involvement in the health services depends on the definition of the term, but there is no fundamental involvement.

## RECOMMENDATIONS

There is an urgent need in Soweto

1. for greater co-ordination of health services under a single health authority.
2. for decentralization of much decision making about staff and services to the health centres, and for a single line of authority between each health centre and its head office.
3. for better communication between the staff of health centres and all health workers in the private sector, including alternative healers.
4. for health services to define their goals and to assess regularly the degree to which they are achieving those goals.
5. for health services to reach out to those who are not getting the care they need.
6. for some fundamental involvement of the local community in the running of each health centre.

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