



update

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A Trimble Ensign
Global Positioning Device

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EDITORIAL

Recently, a few of us were shown around a clinic in a remote rural area. We were struck by the colourful wall charts documenting the incidences of the most common diseases of that district, trends in malnutrition, and indicators of health service provision by that clinic. Another chart mapped every house and major physical structure, as well as the demography of that district.

But most striking was the fact that these charts were prepared by a health auxiliary as part of her routine clinic functions. Using the graphs, she demonstrated significant health trends over the preceding three years, including the location of cases of infectious illnesses. This person clearly understood the impact of her clinic-based services on the health of the community. Yes, she was expected to submit statistical returns to the district hospital, but her "information system" was not a pile of papers in a mouldy old file. She had grasped the value of using information to make the clinic services most effective, and most responsive to the changing health needs of her community.

This clinic was in central Thailand, but this scenario could serve as a vision for South Africa. The theme of this month's *HST Update* is Informatics Support to Health Care in South Africa. We document the movement towards a national health information system, and report on several projects which are helping to give substance to these developments.

How will we view our national health information system in five years time? Will we describe it in bureaucratic terms - as the process of data collection and transfer to ever-higher levels of the health service? Or will we see it in our health facilities in the competence and enthusiasm of the staff to use the information they collect as a means to better health care in their own communities?

POLICY IN PROGRESS

The Month in Review

In this issue we introduce a new column "The Month in Review", in which we reflect on policy events and discussions of the past month.

Proposals for a national health insurance fund have dominated the policy scene this month, as Health Minister Nkosazana Zuma gave a new committee the go-ahead to start planning the scheme.

Over the next three months the committee is to prepare a detailed, phased and costed plan for the

introduction of the fund. This followed an investigation by another committee, the ministerial finance committee, into three options put forward by Australian health economist, Dr. Jonathan Deeble.

The option that the Minister favours, known as option one, encompasses all primary health care, including all general practitioner services, under the scheme, and is available to contributors as well as non-

contributors.

The proposal is that GPs practices - their services and medicines - will be financed by a straight annual fee, paid by the fund, for each patient serviced. The fund will be financed by a levy of 3% of salaries and wages (1,5% each for employers and employees) and the compulsory contribution of 2% of annual taxable income from self-employed people. Deductions will be collected through tax.

Estimates based on the 1994 figures show that a revenue of R6,1bn could be raised from the new payroll and income taxes. This translates to an average of R152 per person per year. Under this proposal, medical schemes will continue to provide cover for hospital and specialist medical services.

The new committee will be chaired by Dr Olive Shisana, ministerial special advisor, and Dr Jonathan Broomberg. Other committee members include Representative Association of Medical Schemes (RAMS) executive director Reg Magennis, Dr Brian Brink of Anglo-American, and Dr H van Heerden of the Health Department.

They are joined by international members Prof Deeble, Prof A Maynard of York University, UK, and Prof WC Hsiao of Harvard University, USA.

Shisana says the main deficiency in the existing health system is in primary care and in the almost complete separation of private GPs from government programmes. About 8000 private GPs serve about 20% of the population, leaving about 5 000 GPs to deal with the balance. "Some means must there-

fore be found to involve the doctors in a national scheme," says Shisana. ■



Theme: Informatics support to health care

Progress towards the NHIS

Dr Olive Shisana is the Special Advisor to the Minister of Health

The task of setting up a National Health Information System is well advanced, with both the planning and the implementation of the system "moving full-steam ahead".

The work involves coming up with a framework for a comprehensive information system which starts at the level of the district, and moves up through the province to the national level. It will include both the public and private sectors.

A committee has been set up comprising of representatives from all the provinces and the private sector. Consultants from the WHO, Unicef and the US Centre for Disease Control are also serving on the structure.

The intention is to establish an information system which will be able to monitor the health priorities of the RDP and the WHO, as well as other objectives of the health services. One of the obstacles to effective planning at present is the lack of comprehensive, reliable information and, by providing this data, the system will become a vital tool for managing the new health structure.

It is essential to have an information system which monitors, for example, the benefits of interventions such as immunisation services and free maternal and child care.

The first step towards creating a truly

representative information system involved inviting NGOs, community representatives and local authorities to workshops where the problems on the ground could be elicited. Reports from these workshops are being included in a document which compiles the RDP health objectives, as well as the WHO and UNICEF health requirements.

With unanimous consensus between stakeholders on the direction of the information system, the regional representatives got to work. The plan is to build on the existing infrastructure, which in some areas such as the Northern Transvaal, KwaZulu/Natal and Western Cape is better than others.

The process of information gathering will be through both improving the quality of data flowing from hospitals and clinics, and from regular demographic surveys. People providing a direct service in the clinics will play a greater role and the kind of data they are collecting

will be reviewed.

Demographic surveys which record data such as common diseases, immunisation and sanitation levels should be carried out every five years to give an overview of the health status. While the trend internationally is to focus on child and maternal health, the plan here is to look at a wider range of health problems. These will be complemented by community surveys, which will take a sample within a district and will be carried out by the District Health Authorities every two years.

The information on factors such as infant mortality rate will provide the key to comparing the socio-economic

status of various provinces, and allow more rational planning of where resources should be targeted.

While the project is a priority for the ministry, it is expected that it will take no less than four years to bring all the systems in all the provinces on board. The project is one of the first tasks for the ministry, as in planning a new health system it is crucial to have an understanding of the social demographics and what people are suffering from, as well as the resources and finances available. ■

Strengthening Informatics capacity at District Level

Steve Tollman is Director of the Health Services Development Unit in Bushbuckridge North Eastern Transvaal.

The first step in embarking on any plan to improve services in rural areas is to address the dearth of information on the simplest statistics such as how many people live in the area.

"Where do we start in developing a health system if we don't know the answer to questions such as the most important causes of death and illness in the area," says Steve Tollman.

The Agincourt Community Practice Project being conducted in Bushbuckridge is leading the way as a model for "putting people on the map", and identifying exactly who lives in the area, their health and educational status and their needs. There is also an urgent need to identify those who do not visit clinics for services such as immunisation because they are the most vulnerable.

While the project is aimed at collecting data on the demography and health status of the Agincourt community, this information forms



the basis for formulating improved health services, as well as empowering community organisations.

The project began with the question of how a district health system could be launched in Bushbuckridge. In order to do this an understanding of the problems was needed.

The field site of Agincourt was chosen primarily for the challenge presented by its deep rural characteristics. The fact that it lay on an "Apartheid faultline" with half falling in Lebowa and half falling in Gazankulu added to the challenge of creating a district health system.

The new coalition of community members, Health Services Development Unit (HSDU) researchers, and health service workers paved the way for the Agincourt Project.

The data is collected by a team of field researchers from the community who are each assigned their section of the field site, comprised of 20 villages. The researchers draw maps of each village, plotting the location of each dwelling. Phase I of the project was to count the number of people living in the area including details such as age, gender and health, education and residence status. Phase II is providing a baseline on health and childbearing status.

Phase III also distilled out information such as who was dying and gives an understanding of the rural community and a sense of its population dynamics, especially migration patterns. It elicited the crucial health indicators such as immunisation, the number of pregnant women reached by health services which could be used as a measure of the effectiveness of health services. Field teams also counted

the number of deaths over a twelve month period and recorded the signs and symptoms of terminal diseases. Doctors then assessed the cause of death from these symptoms.

The results have come up with some surprises. The first was that while the estimate of the number of people living in the area was set at 35 000, the project came up with the figure of 58 000, more than 25% of which were refugees from the Mozambican civil war.

The results also brought out the phenomenon of migrant women. The study found that 14% of women migrated to work, a fact which holds implications for the care of younger children and the development of older children. It also showed the extremely low educational status of refugees, highlighting the impact of the civil war on education.

The fact that more than 25% of the population are Mozambicans is important for the local health service to grasp the additional demands being placed on it. The process of collecting information was more complicated with the refugees having justified concerns about how the information would be used.

Another interesting factor to emerge was that many of the children who died of diarrhoea had been treated at a health facility during their illness. This highlights problems in the management of cases, such as inappropriate medication or the lack of education on how to manage problems at home.

One knows the broad brushstrokes of what the common childhood illnesses are, but it is not a case of one size fits all,"

said Kathy Kahn, a researcher at the HSDU. This study gives an insight into a specific community, and shows how health services are functioning, whether resources are being targeted in the most cost-effective way, and how a district health system can be set up to respond to specific problems. An example is that preliminary results show hypertension to be associated with death due to stroke and heart failure in young adult ages. This indicates the need for more systematic screening programmes, better case management and improved patient education.

As the central tenet in the district health systems is responsiveness to the community, a vital link in this project is the process of feeding back the information gained from the study to the community. Throughout the Agincourt area there are shops displaying health notice boards which keep villagers informed of the forthcoming feedback sessions.

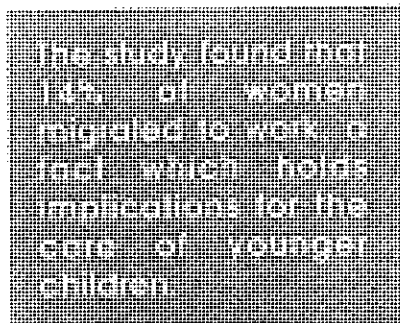
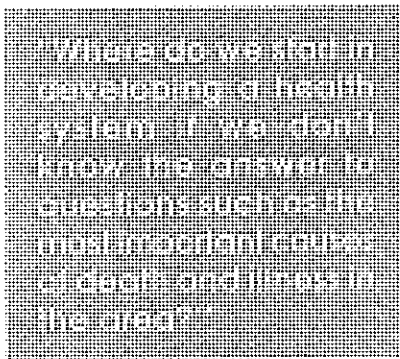
Lizbeth Malomane, a senior nurse at the HSDU, says that at these gatherings community members raise the problems they are experiencing with the health services, and take the information they are provided with to work out strategies to change the situation.

"These sessions have become a lightning rod for people's expectations and frustrations," she says.

Obed Mokoena, the project field supervisor, says the feedback sessions also became a powerful vehicle for raising awareness of health issues and diseases, such as AIDS.

Feedback sessions are facilitated by health committees who had been elected by the residents of each village.

Standing back, the project leaders believe that this information is not only critical for the development



of health services, and for directing communities health interventions. It is highly relevant to local government and development programmes in general. For this reason, the experience of the project, and its approach to collecting information can easily be transferred to other geographical areas and development sectors. ■

Neil Horn is co-ordinator of the Cape Town Atlantis Informatics Project

The aim of the district health information project, which was set up recently in Atlantis, on the West Coast, is to provide a tool for restructuring health services in the area.

Services in the town of Atlantis and its barren underdeveloped surroundings have been affected by the fragmented health system. But with little relevant information coming through the system it is difficult to assess the impact that this fragmentation has had on the area.

By collecting the relevant information, and relating it to the overall health objectives of the district, the project aims to create a system which will play a pivotal role in developing a district management structure.

While the three clinics, the hospital and general practitioners in Atlantis are all collecting information, that information is never fed back to the community, and it is not related to any health objectives.

Instead the data collected is sent off to separate health management structures, all of which fall outside of the area. The information is then sent to the province. As a result of these parallel information systems

the information is not used in planning at the local level, and the data is not shared between the various facilities.

The plan is to send the information from all facilities to a single district office, which will be an integral part of the district. In this way the information can be fed back to the community, and it will enable facilities to communicate and plan together.

The project, which is being conducted by the University of Cape Town's community health department and the local health services, has begun by developing a method of assessing information collected at each facility.

Health workers and community representatives have been drawn into workshops to get their ideas on the health priorities, and on ways of restructuring the health information system. The project is not just about creating an information system, but

it is also about finding ways of applying the system to setting up a district management system. As such, the project has brought the district health system a step closer.

But the concept of "information is

power" is proving an obstacle to the project. As the Western Cape is relatively over-resourced in comparison to other provinces, the various health authorities are wary of information systems which could show up the disparities. There is concern among these authorities that they could stand to lose by an information system, and as a result they have shown resistance to forming a district health management system, says Neil. ■

Management (Performance) Indicators in the Eastern Province

Hilary Southall, Director of the Rhodes Health Informatics (Management) Project, reports.

The Rhodes Health Informatics (Management) Project - RHIMP - has been examining routinely collected statistics from hospitals in the former Eastern Cape. The essence of the methodology is comparison across hospitals to show extreme performance, good or bad. Performance indicators, as they are more generally known, have been re-named Management Indicators (MINDS) to emphasize their use as a management tool rather than as threatening or monitoring device.

At a two day workshop held in Grahamstown in December, it was noted that:

- The management indicators being developed in this project refer to internal management. They are an add-on to the indicators being developed as part of the National Health Information System, and in no way replace or interfere with that.
- There is an economic imperative for the implementation of such indicators as quickly as possible.
- There is generally a grave lack of specific micro - financial information to assist management in daily decision-making in the public health sector in South Africa.
- Management Indicators form a system to be implemented and used routinely. They do not concern the once - off collection of data.

The workshop included such topics as the background and methodology of management indicators;



how management indicators are used to provide information about what is happening in a hospital and how they can be used to improve resource use; the place of management indicators in the cycle of planning and evaluation; and results so far.

The results suggest that hospitals are extremely variable in their use of resources, even in such measures as food costs per patient-day. It was noted that there is considerable scope for more intensive use of resources, notably of theatres, beds and day surgery. Average length of stay tends to be high by international standards, and patients stay longer when there is less demand for their places from other patients. Some hospitals could be more efficiently replaced by community health centres. Hospital staff were commended for their tenacity in trying to reduce costs against all odds. It was suggested that their efforts would be better rewarded through the wider use of information and the wider adoption of management techniques. The latter may require education. A greater

emphasis on theatre data was recommended in that these are the 'core' of the hospital, and tends to determine the efficiency - or otherwise - use of the hospital. Further it was noted that efficient functioning of hospitals is essential to the adoption of the primary health care approach.

The project was strongly endorsed and supported at the workshop, and its continuation and expansion recommended. Indeed, the service representatives proposed that a partnership between the university research unit, RHIMP, and the Department of Health be formed to collaborate in and 'own' the project. A steering group was established, and the priority of how to record diagnostic information routinely was identified as their first task. The other notable gaps in routine information were identified in maternal and child health, and mental health. Albany District was supported as a pilot for district development.

The workshop was lively with interesting debate, and - as far as I could tell - was enjoyed by all. ■

Making Information Useful

Dr. Ron Chapman is Director of Community Health Services in the OFS Provincial Administration.

The Health surveillance project in the OFS has in a sense pioneered the development of primary health care information systems. When it began five years ago it was the first study to tackle the health services of an entire province.

It was initiated as an attempt to give managers in the province an opportunity to see what was happening in the OFS. The routine statistics which were collected previously told managers only what they already knew, and failed to tell them what they did not know.

A report on a study of information systems, prepared by Dr. Chapman, went the way of most documents and ended up gathering dust on a manager's desk - until Dr. Chapman was appointed to the position of acting director and the desk, and the responsibility, became his.

As the question of how to use the information for management purposes soon emerged as one of the most difficult issues, the task was then to devise a system for utilising the information in making decisions. The task was not that easy and it became clear that in order to make an impact at provincial level, it meant fundamentally changing the thinking of an organisation.

The recommendations of the report were then followed up, and a model was designed which revolved around the process of collection, documentation, utilisation and feedback. But each of these phases encountered resistance by the organisational culture, and the challenge of breaking out of the old paradigms still remains.

The project - which includes the University, NGOs and Provincial



Some of the participants at the workshop
From Left to right are Ms Nolwazi Mbanonga, Director of Information, ex-Transkei; Dr Mangeliso Maqina, Deputy Director, Department of Notional Health and Population Development, ex-Eastern Cape; and Dr Pat Naidoo, Acting Regional Director, Cope Provincial Administration and Chair, Strategic Management Team, Eastern Cape Province

Health Authorities - is unique in that it has set itself the target of 1998, by which its task must be completed. By that date health workers and managers throughout the entire province must be trained to work in information systems.

The first objective was to come up with a plan which could be practically implemented. With this phase completed, the task for this year is



Dr Ron Chapman

to pilot the project in several field sites to assess its feasibility and to sort out any teething problems.

Once this is done, the plan can then be implemented throughout the entire province.

In the meantime the project has given rise to a host of task groups looking at issues ranging from how to ensure community participation to computerisation. Other groups focus on community based surveys, evaluation of services, financial resources and traditional healers.

The project is being constructed in a way which allows it to accommodate the district health system, but at the same time, it hopes to lay down the principles which can be applied to any structure.

Its essence is that it is constantly changing to support new government structures, and is continually looking for creative ways to put theory into practice. ■

Progress in the Private Sector

Willem Coetzee is Director of Information Technology at the Representative Association of Medical Schemes.

Innovative steps are being taken in the private sector to create new channels of information flow and to find ways of using that information to improve services.

The development of medical schemes - together with private doctor and clinics associations - have come up with an electronic data interchange which enables claims to be submitted electronically. While the new network is quicker and more reliable, it will also provide an immediate detailed picture of the health needs of an area.

The system begins with developing new coding practices and, as the new diagnostic and procedural codes start coming together in a triangle with costs, it is possible to create models for management. With the required information at their disposal, medical schemes can make better predictions of what their costs will be, and they will be in a far better position to assess a claim.

The information is also critical to providers such as clinics and doctors who can begin planning interventions such as preventative programmes based on the picture that emerges of their client population. By assisting the process of peer review where peers can check whether a doctor is using appropriate procedures - the system will also lead to a higher

quality of care.

Previously, the information that did eventually emerge was scant, and intervention was often anecdotal. The network will provide a far more comprehensive understanding than the existing code of tariffs which looks only at procedures and not at diagnostics. The new coding also makes provision for the complexity of procedures.

The technical process is almost complete, and the system is expected to be in place by next year. Two new coding systems have been devised, one for GPs and another more detailed code for specialists. The coding systems are in line with international standards, which means that figures can be easily compared.

While the system is already in use in certain health management organisations, and vivid pictures of the client-base are already emerging, these initiatives have not yet been linked up to medical schemes.

The system is being developed in co-operation with the national health information system, and it is expected to be of great use in assisting the national level to decide where its resources should be targeted. In the meantime, the main task at hand is that of "selling" the network. Efforts are currently directed at training providers in using the system, and convincing doctors that it is impossible to practice modern medicine without proper coding systems. ■



GIS as a Management Tool

David le Sueur is a Specialist Scientist of the National Malaria Programme at the Medical Research Council

The health information project funded by the Health Systems Trust in northern KwaZulu/Natal takes a more high-tech approach.

While the project also relies on sending a team of field research-

ers from dwelling to dwelling to collect data, this time researchers are equipped with a global positioning device.

The global positioning system (GPS) which gives the exact latitude and longitude of any point relative to three satellites, has proved invaluable in providing an accurate picture of the facilities in

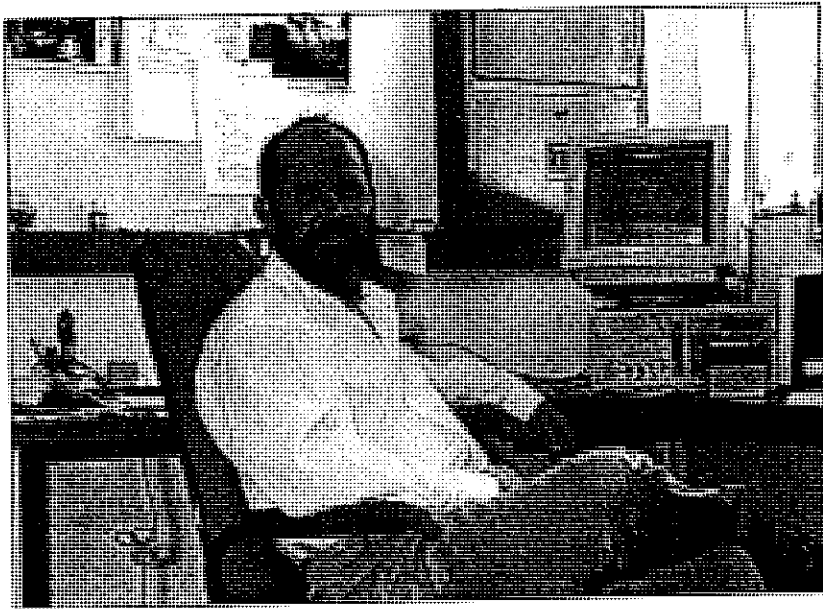
the area and showing their position in relation to where people live.

The system was initially used by the MRC to investigate the changing patterns of malarial areas. Using the existing infrastructure and staff of the government malaria control programme, which visited each house once a year to spray the walls with insecticide, the MRC began its research.

The field researchers, equipped with a bicycle and a GPS, plotted the exact location of the dwelling, and took blood samples of the inhabitants to follow the patterns of malaria transmission.

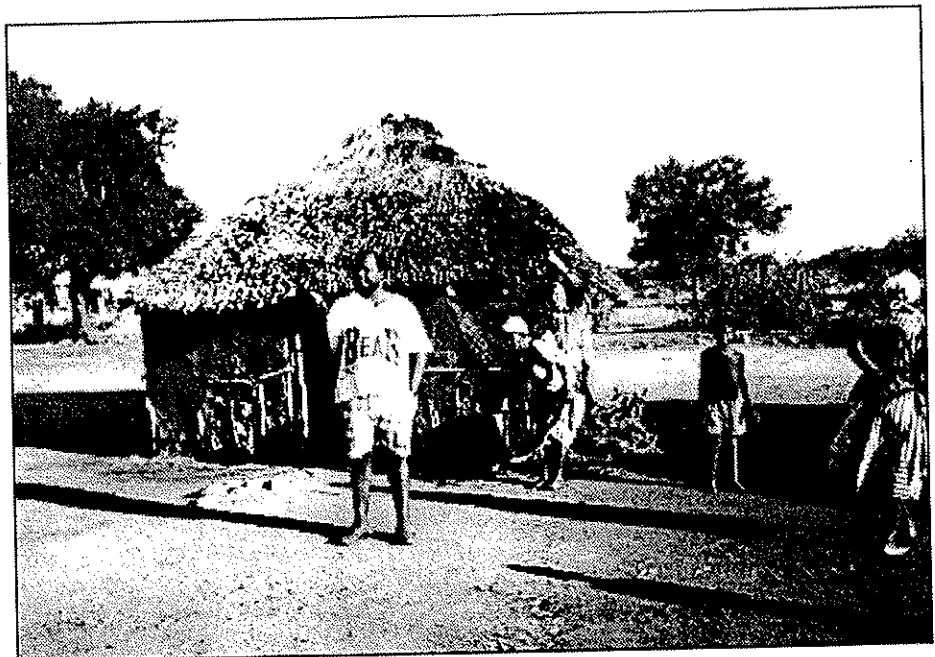
Each of the 206 000 dwellings in the area is identified by its number described on a green card hanging above the door.

The project then began to look beyond malaria and the idea of using the GPS to create a rural health information system germinated. On their routine visits the field team now also records details such as which clinics and schools are used.

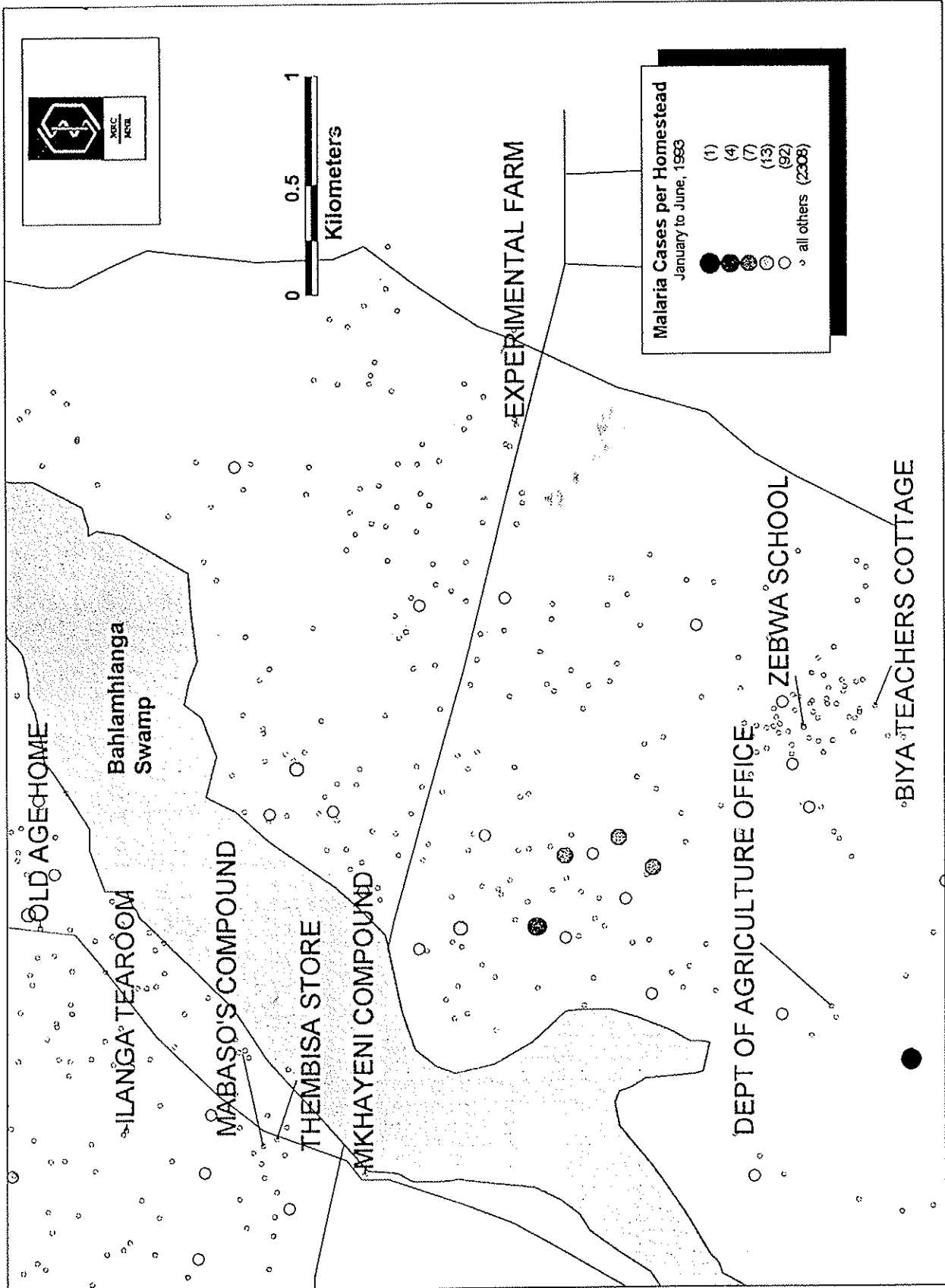


Dr David le Sueur, Specialist Scientist, National Malaria Research Programme, MRC

Mr David Mthembu (Community liaison officer), mapping a homestead in the Mafene area, Ubombo magisterial district. He is holding a Trimble Ensign GPS in his right hand.



Mamfene area, Ubombo magisterial district.

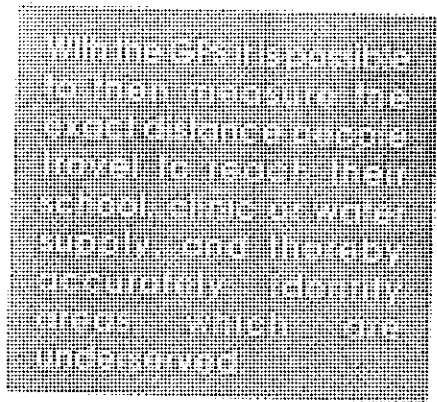


National Malaria Research Programme, 1994.

Map showing the position of individual houses at Mamfene, Ubombo district. The number of cases for 1993 are shown at household level. Other facilities in the area are labelled.



With the GPS it is possible to then measure the exact distance people travel to reach their school, clinic or water supply, and thereby



accurately identify areas which are underserved. It is possible to find the most accessible position for new facilities rather than making a rough estimate.

The GPS is particularly important in KwaZulu/Natal where people do not live on villages but in patriarchal homesteads scattered about the countryside. For this reason the positioning of the infrastructure such as clinics, schools, electrification and water supply requires detailed information on population distribution.

Once the information is fed into a computer in the MRC office in Durban a multidimensional view of the area unfolds. Coloured maps determined by the GPS are overlaid on the computer with geographic maps, and the connection between the spread of malaria and irrigation systems is immediately apparent.

The PC maps also demarcate facilities, and by clicking on each facility the computer identifies it as a shop, a compound, a church.

While the school and health facilities in each area had been recorded, the project found it had left out a vital health resource in the community, the traditional healers.

It emerged in the study that traditional healers played a crucial role in primary health care, particularly in malaria control, and the task for this year as to add them to the map.

Priscilla Cunman is a researcher at the University of Durban Westville's Geography department.

The Geographical Information Systems (GIS) project being run by the geography department has developed new paradigms for health research. By exploring new methods in its pilot study into planning health services for the Durban Functional Region, it throws new light on health problems.

The project focusses on exploring the potential of using GIS to examine the relationships between the location of health facilities and their catchment populations.

GIS uses spatial data, but while it consists of a database it is not simply a computer system for making maps. Instead it is an analytical tool which provides the researchers with answers to complex planning and management problems.

The reliability of the data collected is increased through using an array of information sources such as questionnaire surveys, interviews, GIS and global positioning systems (GPS). The GPS uses a constellation of satellites to give an accurate geographic positioning.

Catchment studies are important as they provide vital indicators needed to determine real access to health services. The monetary costs of health services are relatively minor costs to the indigent user as transport costs together with time constraints are usually the barriers which exclude a significant portion of people needing health care.

Determining suitable catchment areas which may best serve the needs of the people is therefore crucial when planning new centres.

Although this is a pilot project, ultimately the goal of the study is to equip the public and private sector with knowledge of the factors which influence the utilisation patterns, the location of catchment populations of health facilities and ideas on the future position of facilities.

Once this pilot study has been completed the project intends to undertake a larger study which will incorporate facilities in the entire KwaZulu/Natal region.

TRAINING FOR CHANGE

Profile: Lulama Mbobo

Lulama Mbobo is a research intern, funded by Health Systems Trust, in the Health Department's health information management unit.

While Lulama has been in the field of research for a relatively short period, her work has spanned many subjects ranging from women and AIDS to health information systems.

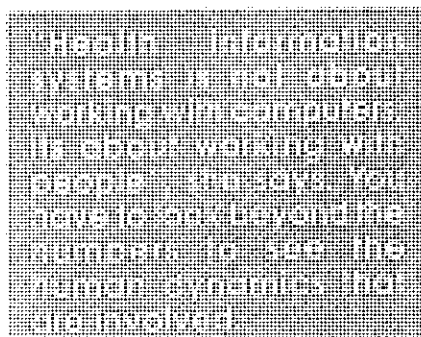
But a common thread runs through the disparate topics - that of her understanding of psychology. With a masters degree in research psychology from the University of the Western Cape, Lulama has been able



Ms Lulama Mbobo

to bring a human dimension into her work in health information systems.

"Health information systems is not about working with computers, its about working with people", she says. You have to look beyond the numbers to see the human dynamics that are involved.



When she joined the Medical Research Council two years ago, new fields of study opened up to Lulama, and the one that captured her interest was that of information systems.

That interest grew to the extent that when she moved to the Health Department last year she was able to take over the co-ordination of the national health information systems committee.

But her focus lies at the district level, and she is currently being trained in managing information at this level and eliciting the health priorities of communities.

Her skills were more finely tuned when she attended a course in November at a private company, Mike Bergen and Associates. This intensive training was part of an RDP initiatives to boost efforts towards the creation of a single public information base, and it looked at new ways to develop information systems.

She says her training has been so wide-ranging that even with the focus on district, she feels well equipped to move on to other levels of the system.

As information systems is a new area for the country she believes it holds many challenges for someone entering the field, and offers many opportunities to make one's mark on the health development of the country. ■

Profile: Thulani Clifford Masilela

Thulani Masilela is a research fellow with the Health Services Development Unit.

The Christmas Party of the Sizanani Group has become one of the highlights of the festive season in Acornhoek, Bushbuckridge. Gathered outside the Agincourt Clinic members of the group and their families join in the singing and speeches. A recurrent theme runs through the speeches - the impact that the Sizanani group has had on



Thulani Clifford Masilela

their lives.

Sizanani is a support group for mentally ill patients in the area, initiated by the team of three: Thulani Masilela, Galit Fehayek and Jane Mawela.

When Thulani first came to Bushbuckridge two years ago, fresh from his Psychology Honours Course at Wits University, he was struck by the high rate of mental illness in the area. With the backing of the Health Services Development Unit (HSDU), he set out to address the problems through a community-based mental health programme.

Partnerships were forged with the psychiatric team at Tintswalo Hospital in Acornhoek, and with the local community through meetings with indunas, women and church groups, and civics. Out of these efforts the Sizanani Group grew into a strong cohesive team.

The project focussed not only on those with mental illness, but also educating the community about the risk factors leading to mental health problems. Most of the project has focussed on assessing the needs for mental health care. This was done through interviews with patients and their families about the problems they experienced, and discussions with community organisations and health service providers about the role they could play in solving the problems.

Thulani says the project was a challenging and at times unnerving task for someone straight from university. But the experience of carrying out mental health work in a rural area, with its many stresses and scarce resources, was made easier by the wide range of skills available at the HSDU, and the support provided by colleagues at Tintswalo Hospitals

The many opportunities he was given to attend conferences and share his experiences with other researchers threw a new light on the problems he faced in Acornhoek. Another breakthrough in building on his skills came last year with the chance to study at John Hopkins University in Baltimore, US. The trip was funded by the Health Systems Trust. The courses he attended on using epidemiology to evaluate health services gave him new skills and ways of understanding mental illness in the Agincourt study.

The skills he learnt also put him in a position to supervise the research of primary health care nurses and to contribute to numerous other projects at the HSDU. "The course at John Hopkins equips you to respond actively and constructively - you learn to respond to problems like the flying squad," he said. ■



Team-building at the University of the Western Cape (UWC) Summer School

The Skills Development Programme (SDP) of the Health Systems Trust received an unprecedented 71 applications for financial assistance from organisations wishing to send people to attend the Summer School organised by the Public Health Programme of the UWC. Forty seven applicants (83% and 79% of whom were Black and female respectively) were provided with financial assistance. A lot more could have been assisted had the applicants submitted their applications in time for placement in the Summer School. The

majority of the applications came from KwaZulu Natal (47%), Western Cape (23%) and Northern Cape (15%).

A remarkable development with this year's applications was a team of 20 applicants (out of a total of 24 from KwaZulu Natal) from Hlabisa Hospital. This represents a welcome departure from previous tendencies where organisations sent individuals (rather than teams) to attend similar courses. On completion of the training, such individuals become overwhelmed by the demands of having to singularly impart their newly-found skills without the often necessary support of a team. The Hlabisa approach (which the HST would like to encourage among future applicants) is based on the premise of developing various but interlinked skills of a team of people who in this case will be able to provide

expertise in district systems development, planning and management; health planning and research; and programme/project implementation and evaluation.

Another notable development was the increase in the number of applications from health services (76%), in contrast to a previous pattern whereby the majority of applications came from university academic departments and research centres.

Although there appears to be more awareness of the SDP as evidenced by the increasing number of applications received, some parts of the country remain inadequately represented, particularly the Northwest province. The thrust of the SDP in 1995 will be to target such remote areas and historically black institutions as these constitute the most under-resourced sectors of the South African Society.

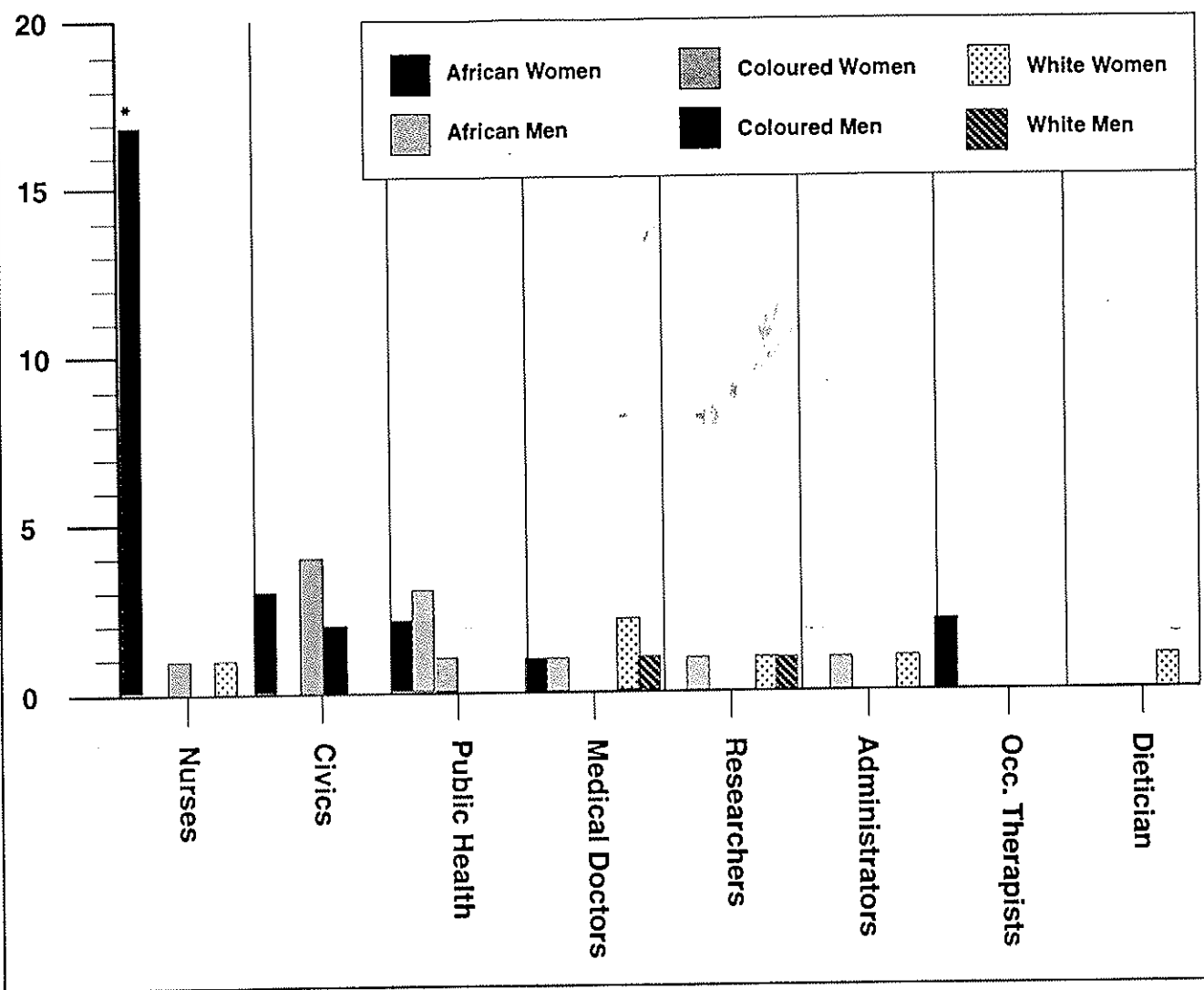
When applying to the HST Skills Development Programme note the following:

- There is an affirmative process of selection targeting particularly, though not exclusively, black and women candidates.
- Recipients may be selected from any level or component of the South African health sector.
- There should be a clear outline of skills to be acquired. There must also be an indication of how the acquired skills will better improve the performance of the individual and her/his work performance.

The application process

- A letter of application must reach the HST's office at least 6 weeks before the commencement date of the course. (Each applicant is responsible for securing admission into the course that s/he wants to attend. A separate application letter/form must be sent to the course organisers in good time.)
- Depending on whether the area of training and place where the training is to occur are appropriate, a formal application form will be sent to the applicant to be completed and returned to HST within 2 weeks. (Please note that submission of an application form to HST does not mean that the application is successful. The form constitutes another step in the selection process.)
- After assessment of the application form, the applicant will be informed whether s/he has been successful or not within 2 weeks.
- HST will make contact with the institution offering the course to finalise arrangements for the payment of fees.

PROFILE OF COURSE ATTENDANTS



About the Skills Development Programme

The SDP, now in its second year of operation, was established in response to identified inadequacies in people with skills in health management, planning, evaluation and research, epidemiology and health economics. The situation is more stark among people who have been disadvantaged and discriminated against in the past. Subsequently,

the latter group of people constitutes the main target of the programme (though not exclusively).

Most of the SDP's funds have been used to support people to attend training workshops and courses (both nationally and internationally) in specified areas that constitute the foci of the programme and by attachment to HST research projects as interns or trainees. Applicants range from community members in

management positions, individuals in non-government organisations, health services administrators, community health facility managers to academics in tertiary institutions.

[The Public Health Programme will be hosting another Winter School in June this year.] ■



HST NEWS

What is HealthLink?

Short articles about the progress with *HealthLink* appeared in the first two editions of HST Update but perhaps we should explain what HealthLink is all about.

Healthlink is a system to help health workers communicate with each other and it is being piloted in South Africa by the Health Systems Trust.

Basically, Healthlink is an E-mail system. E-mail stands for Electronic mail which is similar to normal mail except that computers and telephones are used to send letters instead of the postal service. Letters are written on computer and can then be sent to another computer anywhere in the world using a modem and the normal telephone lines. E-mail is much faster than normal mail and much cheaper than faxing. Sending the same document to lots of people is also much easier using E-mail. E-mail has revolutionised how people work and the way that information is transmitted. Many offices all over the world use some sort of E-mail.

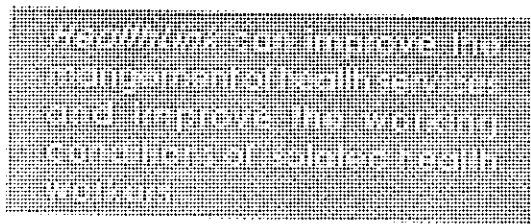
E-mail is simply a communication system. All sorts of documents can be sent by E-mail: letters, memos, order forms, newsletters. The system also allows computer files, such as spreadsheet or database files, to be sent from one person to another.

Healthlink will be using a range of technologies to transmit the E-mail depending on the available infrastructure but mostly we will be using Fido or UUCP technology. Fido and UUCP systems has been implemented in a number of developing countries throughout the world including Kenya, Zambia, Malawi, Zimbabwe, Uganda and Tanzania. In these countries the system is called HealthNet. HealthNet was developed to deal with the poor telecommunications infrastructure found in these countries.

Although South Africa is fortunate in having access to much more sophisticated technology than elsewhere in Africa, communication is still a major problem in some of our less developed areas. We think that Healthlink can improve the management of health services and improve the working conditions of isolated health workers.

Communication is an integral part of the health service. Ordering drugs, distributing memos, sending out laboratory results and transmitting routine statistics forms are just a few of the things that could be done by E-mail.

Many health workers work in isolated areas with little contact with other health workers and far away from resources such as libraries. Using E-mail, health workers can discuss common problems and offer advice



to each other. Experts can be consulted about difficult problems. Newsletters containing abstracts of articles from the latest journals are easily sent by E-mail. E-mail has also been used to link health workers to information and databases in libraries.

We will be piloting Healthlink in three areas, the Northern Transvaal, the Eastern Cape and the Orange Free State. About 30 - 50 points in each of these regions will be linked up in the pilot phase.

Healthlink will be setting up an office in Johannesburg from the beginning of February. Based on proposals submitted by the pilot regions we hope to start linking up health workers by the end of February.

We will continue to keep you informed about our progress in implementing *Healthlink* in subsequent issues of HST Update. ■

Reviewing Private Sector Health Expenditure

Findings and recommendations of a review undertaken by Nicole Valentine and Di McIntyre, Health Economics Unit, University of Cape Town, as part of the National Health Expenditure Review.

The primary goal of this review was to collect data on health care expenditure for the private sector for purposes of health sector planning and policy formulation. Expenditure for the period 1992/3 by medical schemes, health insurers, industry on work-place health services and by individuals in the form of "out-of-pocket" payments is documented.

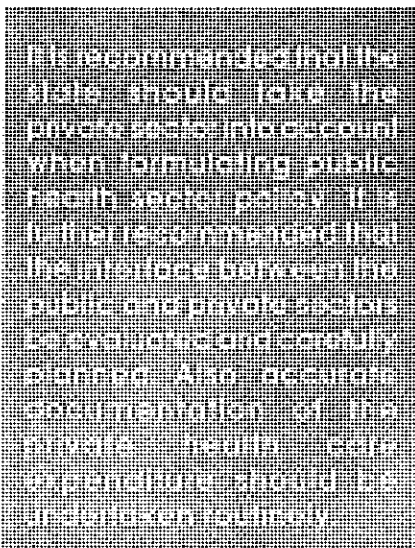
One of the major findings was that private sector health care expenditure far exceeds that estimated by the South African Reserve Bank (SARB). Total private sector expenditure was between R14.9 billion (39% higher than the SARB's estimate) and R17.9 billion (68% higher than the SARB's estimate). The R17.9 billion amount includes administration costs, and surplus of income over benefit payments of intermediaries. These amounts exceed the WHO recommended proportion of 5% of GNP (5.08% and 5.22% respectively).

Medical schemes were identified as the major financial intermediaries accounting for the funding of 67.4% of total private sector health care expenditure. Contributions to medical schemes were from industry, the state (for civil servants) and individual employees. The next largest source of funding was that of direct "out-of-pocket" payments by households (21.7%). Industry contributed 5.8% of total expenditure through funding work-place occupational and other health

services. A further 5.1% of expenditure was financed through the insurance industry. The authors noted the rapidly increasing costs within the medical schemes, and recommended that the matter be addressed as a matter of urgency.

Another important finding is that R1.5 billion of general tax revenue was expended on purchasing services from private sector health care providers. On the other hand, the state received R1.35 billion in the form of VAT revenue from the private sector health care providers.

Given the magnitude of resources within the private health sector and the extent of the public/private sector interface in the funding and provision of health services, it is recommended that the state



should take the private sector into account when formulating public health sector policy. It is further recommended that the interface between the public and private sectors be evaluated and carefully planned. Also, accurate documentation of the private health care expenditure should be undertaken routinely. These will make it possible to monitor the objectives of maintaining standards, improving efficiency of service provision, and increasing access to health services, and will result in the achievement of the goal of improving the health status of all South Africans. ■

Managing STDs in Khayelitsha

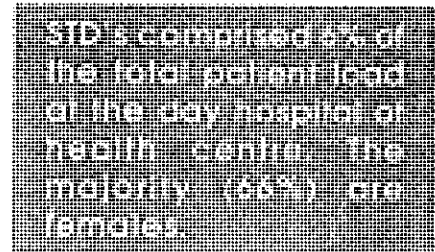
Mamorena Mofokeng is an HST funded researcher based at the Department of Community Health, University of Cape Town. She works in an intervention project to improve the management and control of STD's within health services situated at the Khayelitsha, Site B Health Complex.

Effective treatment and case management of patients with STDs offers one of the most promising strategies for the control of HIV transmission. This prompted the study of the diagnostic profile of patients with STDs at a community health centre in a peri-urban township of Cape Town. The study also reviewed the prescription details to ascertain if these complied with treatment protocols for the respective diagnoses.

STD's were considered a serious public health problem needing proper treatment by the doctors and staff interviewed. Shortage of staff, lack of trained counsellors, limited consultation times for each patient and lack of skills in diagnosis of STD's were cited as problems in the management and control of STDs. Of particular concern were the large numbers of teenagers presenting at the family planning clinics with STDs. Contact tracing was also a major problem in this community.

It was established from a review of patients records that STD's comprised 6% of the total patient load at the day hospital of health centre. The majority (66%) are females. Urethral discharge was the leading presenting syndrome in males. Amongst women, vaginal discharges and pelvic inflammatory disease were the most frequent. Genital ulcers presented in 6% of the patients. Only 62% of the patients were tested for syphilis, and women were significantly less likely to be tested. A large number of these patients (84%) received drug prescriptions that did not comply with treatment guidelines.

The review of records further revealed that there is poor follow-up of STD patients. For the few patients who are called back, attendance is poor. In-depth interviews of 50 clients seen at one of the STD clinics were conducted to



gain insight into problems they experience at their local health services. These interviews revealed deep dissatisfaction with local health services. Problems cited include long waiting hours, shortage of doctors, impolite staff attitudes and poor treatment.

The study concludes by highlighting the importance of accurate information for assuring sustained improvement in the clinical management and treatment of patients with STDs. It further recommends the WHO approach of training of service providers on the syndromic management of STDs, especially in areas where laboratory backup is a problem. ■

Equalizing Personnel Salaries: Possible?

Findings and recommendations of a study by B. Makan and M. Bachman of the Health Economics Unit at the Department of Community Health, University of Cape Town.

Whereas provincial and national authorities employ 96% of all health personnel in the public sector, their salaries are generally lower than those paid by local authorities. Nurses' salaries for instance in local authorities are between 10% and 78% higher than in national and provincial



authorities. Between all personnel categories the weighted mean discrepancy is 35%.

Discrepancies in the remuneration of employees by the different public health authorities has been characteristic of the South African health sector, and is an obstacle to the development of a unitary national health system. Various options for rectifying these discrepancies are suggested by the authors. These include:

- Increasing all salaries to the highest salary paid for each respective position among authorities. This would result in an additional cost of about R216 million per annum (in 1993/4 Rand) and translates into an increase of 26% in the total current salary cost of health personnel. Nurses salaries would account for R 150 million of the total cost.
- Restricting salary increases only to personnel in primary health care settings. This would cost about R28 million per annum (3.5% of current salary cost), R10 million of which would include nursing staff.
- Decreasing the salary level to the lowest condition. This would result in an annual saving of R17 million, and nurses salaries would account for R8 million. This however is an unlikely option that would not be well received by the people concerned.
- Maintaining the salaries of the highest paying authorities at current levels and gradually increasing the salaries of the lowest paying authorities, until the two are comparable. In order to achieve parity within five years, salaries in the lowest paying authorities would have to be increased by between 2.5% and 12.5% annually.

After deliberating briefly on the implications of each of the above options, the authors conclude by pointing to a number of issues that need to be considered in

addressing the issue of salary reform. These are: the process of restructuring of health care services on a national, regional and local /district level; the way in which the levels of responsibility of the currently fragmented health service will be organised in adherence to the Primary Health Care approach as laid out in the 1994 national health plan; the coordination, planning and management of human resources in the health sector will need to be critically examined and assessed in light of the previously segregated system; finally, the political will of the state, and dedication and commitment of the human resource base will serve to determine the ultimate success of any equalisation strategy.

Copies of the detailed working paper can be obtained at a cost of R20.00 (including postage) from:

The Health Economics Unit
Department of Community Health
University of Cape Town - Medical
School, Anzio Road, Observatory,
7925

Phone 021 - 406 6558
Fax (021) 406 6559

REPORTS AND PUBLICATIONS

HEALTH SYSTEMS TRUST FUNDED/COMMISSIONED PUBLICATIONS

Blecher MS, OM Bachmann and
D McIntyre

*Acceptability to General Practitioners
of National Health Insurance and
Capitation as a Reimbursement
Mechanism*

University of Cape Town, Department of Community Health Working Paper 2/94. Health Services Research Series

Coetzee Nicole, Mamorena Mofokeng, Max Bachmann and Diane Cooper

The Site B Community Health Centre in Khayelitsba: An Unrecognized resource in Sexually transmitted Disease Care and Control

University of Cape Town, Department of Community Health. Working Paper 94/2 October 1994

Health in the Headlines, David Robbins' impressions of the Travelling Seminar:

The Role of the Media in Health.

Jointly organised by the Health Systems Trust and Kaiser Family Foundation. November 1994.

UPCOMING EVENTS

CONFERENCES, WORKSHOPS AND COURSES

Lower Tugela District Health Systems Workshop

Date: 3 February 1995

Venue: Stanger Hospital Nurses Lounge

Workshop on Restructuring the Primary Health Care Board - Dept. of Health KwaZulu/Natal

Date: 9 February 1995

Venue: Amatikulu Centre

Audience: Invited delegates

Seminar on Health Systems Research

Date: 20 - 24 February 1995

Venue: Broederstroom

Audience: Invited delegates

Health Economics and Financing Seminar

Date: 22 - 23 February 1995

Venue: Helderfontein Fourways