The Trust for Health Systems Planning and Development (Health Systems Trust) is committed to funding a programme of health systems research and planning which will help to inform the development of a comprehensive health service for South Africa, based on equity.

An integral part of this process will be strengthening research, management and planning capacity, particularly of people for whom access to training has been restricted.

To achieve these aims, the Trust will:

1. Define a systematic programme for addressing the priorities in health systems research, through ongoing consultation with a broad range of interested parties.

2. Provide funding for this programme by commissioning or supporting proposals for specific research projects.

3. Ensure that all research results and recommendations are widely disseminated in order to inform health policy and planning.

4. Identify and support processes whereby the management, planning and research skills of individuals are developed, with particular emphasis on redressing colour, gender, class or urban bias.
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The Health Systems Trust experienced considerable growth and diversification of activities during 1994, in support of the restructuring of the health system which followed the election of a democratic government.

The extensive progress of planning for health sector transformation - from community to national level - provided the opportunity for researchers to contribute significantly to health systems reform. Much of the substance which has underpinned this planning has emanated from research projects supported by the Health Systems Trust.

Equally important have been the efforts to develop the planning, management and research skills of health personnel throughout the country, but particularly in rural areas. The Health Systems Trust has aimed to foster a health team approach in the delivery of health care by supporting the development of appropriate management and leadership skills amongst a wide range of health workers in selected rural areas.

The challenge facing the Health Systems Trust, now that the most significant planning phase is nearing an end, is to encourage a continuous process of review of health sector developments. This will entail the creation of mechanisms for ensuring that health systems research continues to have impact on policy decisions. The Project for Health Information Dissemination has an important role to play in documenting significant policy developments through its monthly publication “Update”, as well as through the South African Annual Health Review.

The Board of the Health Systems Trust was immensely gratified that one of its Trustees, Dr Nkosazana Zuma, was appointed as the first Minister of Health of a democratic South Africa. Dr Zuma has already demonstrated her intention to base policy decisions on the best available information - a characteristic which will ensure better synthesis of recommendations emerging from policy-related research and their implementation.

One of our Trustees, Dr Olive Shisana, was appointed as Special Adviser to the Minister, and has been spearheading the process of restructuring.

Dr Chris Garbers, a valued member of our Board, resigned due to other commitments and we have been pleased to welcome five new Trustees, namely Mr Donald Bodley, Mr Trevor Fowler, Professor Marian Jacobs, Ms Shirley Ngwenya and Mr Sizwe Nxasana.

The model of the Health Systems Trust with an independent Board of Trustees and its capacity to access funds from both the government, non-government sector and foreign donors is proving to be of interest in the restructuring of parastatal organisations in South Africa.

In many ways, the success of the Health Systems Trust has depended on the dedication and motivation of its secretariat led ably by its Executive Director David Harrison. Together this team has developed an organisation which has proved to be an important instrument in the process of health sector reform.

Jairam Reddy
The Health Systems Trust experienced considerable growth in the number and diversity of its activities in 1994.

During the first half of the year, the Trust sought to ensure that results and recommendations from previously funded research began to emerge to support the planning process which followed the election of a democratic government. Activities in the second half of the year focused primarily on support for the restructuring process in the national and provincial departments of health.

Sources of funding

From an initial commitment of R5 million from each of the three primary funders for health systems research and related capacity-building, HST has been able to attract additional support from several other funders - allowing us to expand and diversify our activities.

### SOURCES OF FUNDING FOR THE HEALTH SYSTEMS TRUST

![Graph showing sources of funding for Health Systems Trust]
Activities of the Health Systems Trust

The acquisition of additional funding and personnel has meant that the programmes of activity of the Health Systems Trust have been extended and more clearly defined.

ORGANISATIONAL STRUCTURE OF THE HEALTH SYSTEMS TRUST

Conceptually, the programmes above are presented (from left to right) to reflect the nature of policy development: from health systems research and policy analysis, of which skills development is an integral part; to information dissemination which informs the process of planning; to the implementation of improved systems of health care.

Research

HST has two mechanisms for funding research. First, responses to submitted proposals and second, commissioned research around key neglected issues. The main criteria for selection of any research project are: its relevance and potential impact on health systems reform; envisaged skills transfer and development; and involvement and endorsement by the relevant health authorities.
This framework has been used to categorise health systems research proposals. For our purpose, we have adopted a fairly narrow definition of health systems research, focusing really on the transformation of health systems. Thus, the three components of the health system of immediate interest to us are the infrastructural elements which support health service delivery, the type of health care provided and the manner in which it is provided, and the relationship between the health service and other sectors. The description of projects which follow will demonstrate the relevance of the research being supported, and its impact on the process of restructuring.

One of the reasons for siting the offices of the Health Systems Trust in Durban, was to broaden the Wits-Cape Town axis of funding to include more rural, and under-resourced areas. In one way, this strategy has been successful in that a large number of projects have been funded down the Eastern Sea Board. On the other hand, there remains a preponderance of funding in the Western Cape and Gauteng, with the bulk of our funding still going to established universities.

The proportion of funding going to historically black universities increases from year to year, but is largely reliant on the successful implementation of four strategies: First, greater collaboration between stronger and weaker research centres. Second, responsiveness to the specific needs of provincial administrations now that they are functioning, in addition to continued support for the national department. Third, assistance to Faculties of Health Sciences in historically black universities to develop greater emphasis on applied or operational research. And lastly, developing the capacity of HBU’s to undertake such research. Often this means training for Faculty members as well as the researchers, and investment in new post-graduates with little experience.
The recent appointment of a research manager to the Health Systems Trust will greatly increase our own capacity to support research development in historically black institutions and the health services.

In addition to institutional capacity building, HST supports 22 young black research intern projects throughout the country. It is hoped that a number of these individuals will in time form a new critical mass of black health systems researchers for South Africa.

Skills development

In addition to the capacity-building which we regard as integral to every research project, HST runs a programme aimed at developing new skills in health systems management, planning and research. Specifically, HST has supported management training programmes in KwaZulu-Natal and Eastern Transvaal. In line with efforts to foster a health team approach, groups of health workers from rural areas such as northern KwaZulu-Natal and Kimberley have been assisted to participate in training courses in health planning, research and evaluation.

The Board of the Health Systems Trust has particular concern about the quality of health systems research being undertaken in South Africa. In recognition of this fact, HST has commissioned organisations such as the Medical Research Council and Centre for Health and Social Studies to develop appropriate initiatives to address these concerns.

A final component of the Skills Development Programme is enabling black researchers and health managers to participate in training activities in other developing countries. This has been made possible through the Rockefeller Foundation.
The primary outputs of this project are intended to be: a monthly newsletter of policy developments and HST activities; an annual directory of Health Systems Research; and an annual review of health and health care in South Africa. The first edition of this publication is scheduled for the end of June this year.

HealthLink

HealthLink is a new project supported by the Kaiser Family Foundation. It intends to pilot an electronic communication system in three provinces primarily as a tool for health service management. Its other obvious advantages include enhancing communication between remote rural areas and more central facilities, and facilitating distance-learning for isolated health workers. The first link-up will be occurring in the next few weeks.

Support to the Department of Health

HST has served as a conduit for funding to assist health sector transformation, managing funds provided by the Kaiser Family Foundation for the planning process in all nine provinces and the central department, as well as funds from USAID in support of strategic programmes of the national Department of Health.

Systems development

Through its perceived independence, HST has been able to play a facilitating role around several key issues of health sector transformation, particularly prior to the establishment of a legitimate government. National meetings around health expenditure, district systems development, informatics support to health care and health management training provide some basis for further development of these areas by the new Department. An area in which the Trust continues to play a facilitating function is with regard to the role of community-based and non-government organisations in health care. Our aim has been to explore with them their role in district systems development in particular.

A final function of the Health Systems Trust has been to support strategic activities, such as the annual seminar for media editors and journalists, which has helped to place health and rural issues on the national agenda, while site visits have had positive spin-offs for those particular communities.

Future of the Health Systems Trust

The Henry J. Kaiser Foundation and the Department of Health have both renewed funding to the Health Systems Trust, an indication to us that HST is fulfilling an important role. Discussions are underway with the Commission of the European Union to renew its funding. The Health Systems Trust needs to develop a closer relationship with both the national and provincial health departments to be responsive to their needs, maintaining and consolidating all programmes, from research through to support for implementation.

The future of HST is caught up in the discussions about future funding mechanisms for health research in South Africa. But whatever the final mechanism, we must not lose the characteristics which have made HST successful: its relative autonomy; its flexibility and responsiveness; its focus not only on research, but on implementation of recommendations; and its ability to attract a range of funders.
Terence Nair and Nomonde Moadi
Administrators

Support Staff
Khuphukile Nyawose  Thembsile Mboatha  Jule Tshaver
RESEARCH PROGRAMMES

1. HEALTH CARE FINANCING

The Health Financing and Economics Programme of the Centre for Health Policy: Mobilising Resources in Support of Primary Health Care

The Health Systems Trust funds four major projects in the Health Financing and Economics Programme of the Centre for Health Policy. The Programme experienced intense activity surrounding the political transition in South Africa during 1994. The expertise of the Programme was harnessed through direct participation in policy making processes at national and provincial levels. This involvement helped to maintain the relevance of the programme’s research agenda. Collaborative efforts with other research units, management consultants and government committees proved to be particularly fruitful.

The researchers who are primarily funded by the Health Systems Trust are Allison Beattie, Jane Doherty, Anthony Kinghorn and Alex van den Heever. Two research interns, Brenda Khunoane and Prudence Gwala, are also funded by the Trust: they participate in all the projects, and attend an intern training programme which includes a series of seminars run by the Centre, as well as courses and conferences organised by other organisations. Max Price, the Director of the Centre, is also integrally involved in the work of the Programme.

1.1 The Public/Private Mix and Options for Financing Health Care

| Grantee: Centre for Health Policy, University of Witwatersrand |
| Programme Director: Dr Max Price |
| Grant Amount: R591 296.28 |
| Grant period: 2 years |

This project made particularly large contributions to the formulation of government health financing policy during 1994. In terms of private sector financing, Alex van den Heever made submissions to the Melamet Commission of Inquiry into the medical schemes crisis, and Brenda Khunoane explored the advantages and disadvantages of removing the tax subsidy on medical aid contributions by employers with a wide range of stakeholders. In terms of public sector financing, Max Price made substantial inputs to the ANC Health Plan on the topic of financing options for the future, and after the election was a member of the new government’s Health Finance Committee. Conceptual approaches to the introduction of social insurance in South Africa, an old research topic of the Centre, were developed extensively during 1994.

The project gained considerable experience in terms of budgeting and resource allocation during 1994. In the pre-election process Alex van den Heever contributed to the setting up of the Reconstruction and Development Programme (RDP) by estimating the recurrent financial gap in the provision of basic health services in South Africa: he estimated that it will cost in the region of 1.5 billion rand to extend the coverage of a basic package of services outlined in the RDP to the whole population. The development of the 1994/95 health budget, in relation to the budgets of other government functions, was also influenced by the project. After the elections, the project developed an approach to inter-provincial resource allocation in health and participated in inter-provincial financing committees concerning the distribution of the national budget.

The project was approached to assist the Gauteng Province in developing a strategic plan for its hospitals. This consultancy was very important in highlighting the implications of budgetary re-allocation for one of the richest provinces. Hospitals in the province were analysed by level of care, and this experience was used to contribute to national discussions concerning the setting up of a new uniform programme structure for the health budget able to distinguish between levels of care. A financial model of the Gauteng health service was developed to demonstrate potential financial savings from various investment strategies.

1.2 Investigation of Future Roles for GPs and HMOs

| Grantee: Centre for Health Policy |
| Programme Director: Dr Max Price |
| Grant Amount: R335 872.90 |
| Grant period: 18 months |

This project has been investigating future roles for private primary care providers (GPs and Health Maintenance Organisations) in the provision of primary care in a national health system. Several possible roles have been identified. GPs and HMOs might continue to function independently of the public sector with no formal ties to it. Alternatively, district health authorities might contract with GPs or HMOs to provide certain primary care services when this seemed financially or functionally beneficial to the district. Finally, GPs and HMOs may be incorporated as primary care providers in a National Health Insurance system for South Africa with an emphasis on an essential package of primary care services.

Among the projects activities thus far has been a review of the experience of managed health care internationally and its potential impact on the provision of primary care in both the public and private sectors. The major conclusion reached was that although managed health care can provide beneficial once off savings for the private sector, it seems unlikely that it will be able to control longer term costs escalation unless system-wide regulations are enforced to assist in preventing cost-ineffective practice. Managed care, by making
private medical care more affordable to low income earners, may in the short run at least help to reduce the patient load on the public sector. Negative effects on quality and equity should be limited in a well regulated environment.

A situation analysis was conducted using key informant interviews to assess the extent to which managed care has been introduced in South Africa, the types of managed care schemes being created and their implications for both public and private sectors. While managed care initiatives are widespread, many are still in the early development stages. Although many private providers have become more receptive to managed care, numerous problems are being encountered in implementing the more rigorous managed care strategies which will be required for effective control over costs and quality. A fundamental constraint on effective managed care is the lack of information systems or diagnosis-related information.

A review of the roles of GPs internationally and the regulations and incentive structures that govern their behaviour is in progress. A study of the District Surgeon system is also under way to identify past problems of incorporating private GPs into the public system and indicate factors which must be taken into account in designing future contractual arrangements with GPs.

Preliminary work on the incorporation of GPs and HMOs into a future National Health Insurance is now being used as an input into the national Committee of Inquiry which is investigating various options for providing universal access to primary health care. The Committee's agenda has influenced recent conceptualisation of the ongoing work of the project, which may need to be modified to take into account the new policy environment.

1.4 Acceptability to general practitioners of a National Health Insurance System with capitation as a reimbursement mechanism.

<table>
<thead>
<tr>
<th>Grantee:</th>
<th>Dept. of Community Health, University of Cape Town</th>
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<tr>
<td>Programme Director:</td>
<td>Dr Mark Blecher</td>
</tr>
<tr>
<td>Grant Amount:</td>
<td>R12 000.00</td>
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<td>Grant period:</td>
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Researchers:
Blecher M.S., Bachman M.O., McIntyre D.

National Health Insurance (NHI) is one of the most common forms of financing health care worldwide. Proposals to establish a NHI system in South Africa have been discussed for several years, but have become the subject of intense interest since the establishment of a Commission of Inquiry into National Health Insurance by Minister Zuma. The acceptability of reforms of the financing and provisions of health care to the main stakeholders is important in assessing the feasibility of various NHI models.

This study aimed to determine General Practitioners' attitudes to National Health Insurance and to capitation as a mechanism of reimbursement and to explore determinants of these attitudes.

A cross-sectional survey of private General Practitioners (GPs) in the Cape Peninsula was conducted by means of telephone interviews. 170 GPs were randomly sampled from a commercial pharmaceutical database and interviewed to determine their acceptance of NHI and capitation as a method of remuneration. Four qualitative focus groups interviews were also conducted with about 50 GPs.
Sixty three percent of GPs approved of NHI. This figure rose to 81% if GPs were to maintain their independent status e.g., own premises and working hours. The proportion that would be in favour of NHI if any person who wished to could take out additional private top-up insurance was 79.2% and if payment was by fee-for-service was 89.6%. 82.3% believed NHI would lead to a more equitable system of health care, 88% approved of the fact that NHI would make care by GP’s more accessible and 73% said they had the capacity to treat more patients.

After multivariate analysis the study found that the most important determinants of approval of NHI were beliefs that it would lead to a more equitable system of health care and that NHI was compatible with free enterprise principles.

The majority (61%) of GPs disapproved of capitation as a method of re-imbursement, with only 16.9% approving. Additional issues that emerged were the importance of maintaining professional autonomy (e.g., involvement of physicians in choice of medications, investigations), adequate remuneration of physicians and quality of care. These results were discussed with reference to theoretical frameworks which examine doctors’ beliefs about political ideologies, professional autonomy and economic interests. The result of this study may not be generalised to the rest of South Africa, and a national study has been initiated. In conclusion most GPs were amendable to some form of NHI. However, the proportion of GPs who approved the introduction of a NHI varied depending on details of the NHI system such as payment mechanisms, workload, income and effects on professional autonomy. The implications of GPs’ preferences concerning the reimbursement mechanism need to be considered before assuming the viability of a NHI in South Africa.

The study is in press in the South African Medical Journal and a working paper is available from the Department of Community Health, University of Cape Town.

2. RESOURCE ALLOCATION

2.1 Costing Primary Care

| Grantee: | Centre for Health Policy, University of Witwatersrand |
| Programme Director: | Dr Max Price |
| Grant amount: | R385 969.65 |
| Grant period: | 18 months |

This project is researching the costs and quality of primary health care currently available in South Africa in order to develop a projection for global funding of PHC. The project is evaluating the range of services, personnel and resources used in the delivery of primary care at five sites around the country. At each site the cost of services provided have been complemented by a quality of care assessment in order to draw some general conclusions about the relationship between costs and quality.

A description of services provided and, more importantly, services that are not provided, will complete the profile of current patterns in primary care delivery. In order to take into consideration the different demographic and epidemiological profiles of communities in the country, the projections for costs at a national level will be based on different models of population movement and various assumptions about how health care is delivered in a range of communities.

Some of the early results indicate that the costs of primary care range from R25.54 for an average consultation to R147.46. Care delivered in the private sector was usually, but not always, more expensive than public sector services. The major determinants of the cost of a consultation were staff costs and pharmacy costs. Staff costs accounted for anything between 27% and 60% of total costs and tended to account for a larger proportion of total costs in the public sector. Pharmacy costs were generally higher in the private sector, both in rand terms and as a proportion of total costs.

Quality of care varied greatly between the sites. High quality tended to be present in higher cost sites although this was not uniformly true. The lower costing services were not necessarily the services with the poorest quality. An assessment is underway to determine what patterns in quality shortfalls exist among the sites.

The project has been under way since 1993 and is reaching its conclusion. All five sites have been analyzed individually and technical reports have been published on each one. The final two months of the project will be spent writing the final report on global projections for costs and the results will be available by April.

2.2 Resource allocation

| Grantee: | Centre for Health Policy University of Witwatersrand |
| Programme Director: | Dr Max Price |
| Grant amount: | R263 705.37 |
| Grant period: | 16 months |

On a theoretical level this project is engaged in conceptualising the major concerns and techniques associated with equitable and efficient resource allocation within regions. The project began with a review of resource allocation approaches around the world, including the UK and USA. In addition, the approach of the World Bank’s report “Investing in Health” was critiqued, particularly with regard to the use of cost-effectiveness analyses in the development of an essential package of services.
The project then decided to focus on the role of hospitals in supporting a strong primary care system: this emphasis was identified because of the emerging realisation before the elections that the Primary Health Care Approach espoused by the ANC could not be achieved without resolving the crisis in hospital care. The project conducted a second literature review, this time of the international experience of expenditure between levels of care. This review found that hospital care tends to consume between 30 and 50 percent of national health expenditure and, in developing countries, between 40 and 80 percent of public health expenditure. The review also confirmed that regional and central hospitals tend to consume between 60 and 80 percent of hospital expenditure. The review was published as a technical report for the Health Expenditure Review (HER) in South Africa, and was useful in placing the findings of the final HER report in context. Jane Doherty in fact contributed to the drafting of this final report: this experience enabled her both to understand the actual pattern of resource distribution around the country and to identify problems in the outcome of past resource allocation processes.

The theoretical activities of the project were also linked to practical planning exercises on the ground. In particular, the project contributed to two consultancies in collaboration with other research and planning organisations. The first consultancy was to determine whether the building of a large academic hospital in Pretoria should continue. The second consultancy related to a new academic hospital in Durban, but in this case construction had not actually begun. Both consultancies involved extensive consultation with stakeholders, as well as an evaluation of the need for beds at different levels of care within the metros and as in surrounding regions. The consultancies both concluded that the originally proposed number of academic beds should be scaled down and that care should be provided primarily at a secondary rather than tertiary level. Furthermore, additional beds should be located in peripheral rather than central locations in order to improve access to hospital care.

On the basis of the experience with these consultancies a study was developed for 1995 which will look at enhancing the relationship between primary care services and district hospitals. This study will look at how resources should be distributed between hospital and clinic services within a district, as well as how referral, transport, admission and discharge systems could be improved to improve access to hospital care while relieving hospitals of patients who could be seen at lower levels of care.

2.3 Mental health services in the Western Cape: An expenditure review

| Grantee: | Dept. of Psychiatry, University of Cape Town |
|---------------------------------------------------|
| Programme Director: | Prof Brian Robertson |
| Grant amount: | R122 800.00 |
| Grant period: | 1 year |

Researchers:
K. Ensink, B. Robertson & P. Leger

This study aimed to collate essential data on mental health expenditure in the Western Cape. It also responded to the needs of service planners for basic planning data on
- the current bed population figures for psychiatry,
- average costs per patient day for psychiatric inpatient treatment,
- utilization of inpatient, outpatient and community psychiatric service
- current distribution of personnel and financial resources to inpatient, outpatient and community settings

Primary data sources included hospital records and budgets. Where records were not available or proved unreliable, information was obtained through sampling patient data. Information was also extracted from published data sources such as the “Estimates of Revenue and Expenditure” for the Health Department, Auditor General Reports, and Annual Reports of Hospital and Provincial Administrations. Two main problems experienced during data collection were the inadequate records systems at hospital level and the fragmentation of service administration and lack of budgetary clarity at an administrative level. The latter problem has serious implications for mental health planning and it is imperative that transparent and comprehensive accounting practices for mental health are developed at provincial and national level.

Results:
During the 1992/1993 financial year public sector expenditure on Mental Health Care (including mental handicap) in the Western Cape totalled R148 419 000, approximately 8% of general health expenditure. By far the major proportion of Mental Health expenditure within the Health budget, R144 million (97%), was on direct curative services. The remaining R4 419 000 (3%) is on indirect services such as the payment of subsidies and grants. An analysis of funding allocations to mental health services indicates that the main institutions - Valkenberg, Lentegeur, Stikland, Alexandra and Nelspoort - receive 93% of the total budget. The academic complexes - Groote Schuur,
Tygerberg, and Red Cross - receive 4%; and the network of community clinics serviced by the Department of National Health receives the remaining 3%.

A comparison of psychiatric and general hospital unit costs revealed marked disparities in funding. Unit costs in psychiatric institutions are on average a quarter of general health unit costs within academic hospitals and half of unit costs in non academic settings. While it is accepted that there will be a wide variation in unit costs depending on the type and level of care, differences of this magnitude are difficult to justify.

Average psychiatric unit costs are equivalent to unit costs at T.B. hospitals, which are generally recognized to require the lowest level of inpatient care. Adequate staff:patient ratios for psychiatric care cannot be provided at these funding levels, especially in psychotic wards, and it is not surprising that the safety of patients in these wards can no longer be guaranteed.

The aim of the study was also to investigate whether inpatient resources could be retracted for the development of community and primary care psychiatric services. Bed population ratios for the Western Cape were not previously available, but it was assumed that there was an overprovision of psychiatric beds when compared to international standards. It was therefore proposed that the development of essential community psychiatric services could take place through the retraction of financial and personnel resources from institutions. The findings of this review do not support this proposal. The current psychiatric bed population ratio for the Western Cape of 61:100,000 falls short of WHO recommendations for Western Countries of 100:100 000 where no outpatient or community infrastructure exists. It is slightly higher than the minimum of 50:100,000 which is recommended where a well developed community and outpatient psychiatric service is available. It is lower than the 69:100 000 average for a number of developed countries where community and outpatient psychiatric services are established.

The review also indicated that bed occupancy in the majority of psychiatric wards was very high; the mean bed occupancy rate of 87% is as much as 18% higher than the average rate for all other public general hospitals in the Western Cape and 5% higher than that in academic settings. The local situation with regard to bed use is therefore significantly different when compared with those countries where hospital resources were retracted for the development of community services. In these countries psychiatric bed occupancy had declined radically, and bed and ward closure were indicated. In the OFS it was also under utilization of beds which precipitated the shifting of personnel resources from inpatient to primary care in the OFS. The high bed occupancy rates experienced in the Western Cape suggest that plans which involve the reduction of inpatient beds are contra-indicated and should not proceed without careful evaluation of its impact and costs to patients.

Personnel costs account for 86% of psychiatric expenditure. Personnel time can therefore be regarded as the central currency in psychiatric service provision. Other than staff, the resources which could potentially be released from inpatient care are therefore negligible. An area which will need further investigation is that of capital costs and potential releases of funds through the sale or letting of land and buildings. This was not fully explored in this study, because it was not clear whether funds generated from such transactions could be "ringwalled" for psychiatry, or would be appropriated for general health services.

Another key objective of the study was to identify serious gaps in current psychiatric service provision. An analysis of current utilization patterns indicated that, contrary to expectation, there is relative equity in the use of inpatient psychiatric services for the old "population groups" (which under the apartheid system determined access to psychiatric care). A percentage breakdown of users closely matched the population profile of the Western Cape. However, utilization patterns at outpatient departments indicate that considerable inequity exists across the different population groups. At 4% of total attendances, blacks are seriously under-represented (17% of WC population), coloureds at 52% of attendances are marginally under-represented (58% of population), and whites markedly over-represented at 44% of attendances (23% of population). Similarly an analysis of community clinic attendances, where blacks constitute only 9% of attenders, indicates that there is an urgent need for the development of psychiatric community services accessible to black patients.

In addition to public sector services, a review of private sector services was also undertaken. Total expenditure on private providers of psychiatric and psychological services was estimated at R27,739,236, approximately 16% of total mental health expenditure in the region. Medical Aids contributed approximately 71% of this expenditure and out of pocket payments the remaining 29%. As can be expected, private sector services are predominantly used by white consumers (78%).

Conclusion and recommendations:

This review indicates that funding and provision of inpatient services are already at a minimum. The development of primary care and outpatient psychiatric services accessible to black communities is essential. The study findings indicate that at present it is unlikely that this can be funded through the redirection of resources currently used for inpatient care without compromising an essential service. The study indicated the need for research evaluating other options such as
the identification of patient groups which could be more cost effectively treated in community and day care programs, or in general hospitals.

2.4 Towards more equity and efficiency: A preliminary analysis of aspects of financing, organisation and management of health services for the province of the Western Cape

| Grantee: | University of Cape Town/ Provincial Administration of the Western Cape |
| Programme Director: | Dr Brigid Strachan |
| Grant amount: | R68 268.00 |
| Grant period: | 6 months |

Objectives of the project

The objectives of this project were:

- to describe, and analyse patterns of financing, expenditure, planning and management in the health sector (public and private) in the Province of the Western Cape,
- to map resources - facilities, personnel and finance on a geographic information system.

Health status and service provision

- The Western Cape has the highest Human Development Index in the country - a composite index measuring development through adult literacy, life expectancy and income.
- The better socio-economic circumstances of the Western Cape result in a different health profile for the Province compared to other Provinces in South Africa, with the main killers being non-communicable diseases (cancers and circulatory) and violence (evident in societies with social disruption, political alienation and rapid development) (see table 1). Interestingly these health problems cost more to treat as they require higher levels of technology as well as secondary and tertiary care.
- Whilst having a health profile which reflects middle rather than low income developing country, there are important differences within the Western Cape population (see figure 1).

Summary of expenditure issues for province and the budget of the metropole

- In 1992 - 93 some R1.78bn or 12.5 percent of the national budget was spent in the public sector in the Western Cape which comprised 3.5 million people or 9.7 percent of South Africa's population. In 1994/5 R2.1bn was spent by the public health sector in the Western Cape with a population at 3.62 million. Reliable sources put the unofficial population figure at 4.2 million.
- The Cape Metropole accounts for 85 percent of public health expenditure in the Western Cape, and has about 67.5 percent of the population.
- The health budget for the Western Cape has been declining and in the past 10 years has been cut 20 percent in real terms. There has not been a concurrent decline in expenditure over the past three years resulting in a deficit for 1994/5 of R362 million on a budget of R1,85m (expenditure being R2,2bm). The predicted deficit for the academic hospitals amounts to 20 percent of their recurrent expenditure for 1995/6. In the past the Province has been bailed out of its deficit by central government at the end of the financial year. This was done through increasing international loans. The tone of the new government is that this will not continue to be the case.
- Planning to contain costs and reduce expenditure in the future necessitates the central Department of Health and State Expenditure recognising the current actual expenditure and not budget as the base line for future financial planning.
- Expenditure per capita for the public sector in the Western Cape was R493 for 1992/3 and R543 for 1993/4, higher than the national average of R342 per capita. Higher per capita costs in the Western Cape are due primarily to the more highly developed infrastructure and accompanying personnel costs in the Western Cape.
- Higher costs are explained in part by the fact that this Province includes two tertiary hospitals with academic, quaternary and training responsibilities (Groote Schuur and Tygerberg). The average cost per patient day in these hospitals is R500, 40 percent more than a non-academic regional specialist hospital.
- Groote Schuur and Tygerberg do have a predominantly Western Cape and Metropolitan based case-load while retaining national responsibilities for medical and associate health personnel education and research. The Western Cape trains a third of all health professionals trained nationally. Eleven percent of the case-load of the academic complexes comes from outside of the Province, and is predominantly in the tertiary/superspeciality sector.
- Primary and community care account for 14 to 24 percent of public sector expenditure, but is not always accessible where it is most needed. Ten percent of primary care is concentrated in academic hospitals amounting to 20 percent of all care in these complexes.
- According to the new national resource allocation formula which aims at the equitable allocation of public sector resources between provinces, expenditure in the Western Cape must decline R500 million in nominal terms over the next five years. Reduction by R500 million, which is a quarter of recurrent expenditure, would lead to serious
dislocation of public health services in the Province and retrenchment of 7000 people.

- Thirty five percent of the population in the Western Cape is on some form of benefit scheme or medical aid compared with 16 percent of the population nationally. Per capita private expenditure is higher in the Western Cape at R1480 per capita compared with R1240 nationally. Per capita expenditure for whites, Coloureds and Africans in the private sector is R2857, R705 and R565 respectively.

Problems in health sector financing and planning in the Western Cape

- underfunding and overspending
- unrealistic financial planning by central government leading to a demoralisation of health managers and administrators
- a lack of costing and health information for planning
- maldistribution of resources resulting in inequity between levels of care, urban/ rural, urban/peri-urban etc.
- inefficiency in optimal use of scarce resources - finance, personnel, facilities (management) illustrated in a lack of accessible, quality primary care
- inappropriate incentives to providers and consumers in the public and private sectors
- lack of co-ordination of preventive and curative services, facilities and authorities
- overcentralised control of budgeting and financing and lack of incentives to managers
- predominantly a lack of pro-active, democratic planning and management at provincial and local level

Key issues in the province and the metropole to which future policy on financing and expenditure should be directed

- the concentration of 2 academic complexes (treating at all levels of care) in the metropole contributing to an expensive and inappropriate pattern of care in the metropole and the province
- duplication of some specialist services, equipment, and clinical research in the public and private sectors
- fragmentation of curative and preventive services resulting in duplicated service points in many areas leading to increased costs for the patient and the health system
- inadequate primary, community and continuing care in certain areas of the metropole and the Province
- a management and planning structure which has failed to counteract parochialism of different authorities and to give direction to the metropolitan and Provincial health services overall
- under-utilised resources (facilities and personnel) in the private sector and parts of the public sector
- a lack of sufficient health information to plan according to population need and a lack of an ethos of the centrality of health information to health care planning and provision
- management style and organisational structure which generally provides no incentive cost containment
- declining resources and the need for more efficiency (better use of existing resources)

Recommendations

On Financing, Planning and Budgeting in the Health Sector of the Western Cape

- within the context of increasing financial constraint the health services in the Western Cape need reduce expenditure, increase revenue, and be reshaped to better serve community needs
- revenue can be increased through improving cost recovery and investigating the possibilities of a provincial tax
- to improve efficiency and facilitate change fundamental organisational change is required at provincial and institutional levels (especially the academic hospitals)
- budget and financial systems need to change in order to provide better cost and expenditure information for decision making purposes and planning
- this will entail putting new functions to the newly developed budget structure
- there is a need to integrate financial management, budgeting and planning
- there is a need to develop a health information system and appropriate indicators to monitor progress in planning and management of health services
- there is a need to move from administration to innovative, decentralised management - this will require training as well as changes in provincial legislation and public sector regulations
- there is a need to follow a new budget structure which allows for control of finance through the FMS system as well as a monitoring of health objectives and policy objectives
- once financial planning has been placed on a realistic base line there is a need to introduce budget limits at institutional and regional level
- there is a need to introduce zero-based budgeting in combination with existing expenditure in order to overcome inappropriate historical patterns in the
funding of health care in the province

- there is a need to explore whether contracting between purchasers and providers in the public and private sector in the Western Cape would improve efficiency and control costs
- in relation to the private sector there needs to be increased co-operation between public and private sectors regarding the organisation and financing of provincial health services in order to ensure optimal service delivery for everyone (this is in line with national trends towards National Health Insurance).

Developing a new strategy:

In developing a new strategy for the Province questions to ask on health care performance are:

- Is the service reaching the people it should serve?
- Has the service been effective in meeting people’s needs?
- How should services be allocated in such a way as to serve as many people as possible?

| Table 1: Leading causes of death and potential years of life lost (PYLL), Western Cape |
|----------------------------------------|-----|-----|-----|-----|
|                                      | DEATHS | % DEATHS | PYLL* | %PYLL |
| 1 Infectious & Parasitic diseases     | 2243 | 8.73 | 63663 | 14.95 |
| 2 Neoplasms                           | 4178 | 16.26 | 30390 | 7.13  |
| 3 Endocrine, nutritional & metabolic diseases & immunity disorders | 1008 | 3.92 | 9595  | 2.25  |
| 4 Diseases of blood & blood-forming organs | 36  | 0.14 | 614   | 0.14  |
| 5 Mental disorders                    | 54  | 0.21 | 712   | 0.17  |
| 6 Diseases of the nervous system & sense organs | 436 | 1.70 | 9978  | 2.34  |
| 7 Diseases of the circulatory system  | 7431 | 28.91 | 40230 | 9.44  |
| 8 Diseases of the respiratory system  | 2439 | 9.49 | 34513 | 8.10  |
| 9 Diseases of the digestive system    | 601  | 2.34 | 7517  | 1.76  |
| 10 Diseases of the genito-urinary system | 400 | 1.56 | 4576  | 1.07  |
| 11 Complications of pregnancy, childbirth & puerperium | 12  | 0.05 | 410   | 0.10  |
| 12 Diseases of the skin & subcutaneous tissue | 145 | 0.56 | 9124  | 2.14  |
| 13 Diseases of the musculoskeletal system & connective tissue | 9   | 0.04 | 147   | 0.03  |
| 14 Congenital anomalies               | 194  | 0.75 | 12312 | 2.89  |
| 15 Certain conditions originating in the perinatal period | 1174 | 4.57 | 76307 | 17.91 |
| 16 Symptoms, signs & ill-defined conditions | 2324 | 9.04 | 26142 | 6.14  |
| 17 Accidents, poisoning & violence (external causes) | 3018 | 11.74 | 99726 | 23.41 |

Source: D Bradshaw, MRC, in Health Status Review, SMT, Western Cape, 1995. Unpublished
Note: Categories 1-17 are ICD classifications
* Potential years of life lost
Figure 1  Life Expectancy Whites and 'Coloureds' at birth

Source: D Bourne, UCT

Figure 2  Organisational structure of the South African Health Service - March 1994

HEALTH SYSTEMS TRUST • ANNUAL REPORT 1994
2.5 Cost effectiveness of Community Health Worker Programmes

| Grantee: | Health Economics Unit, University of Cape Town |
| Program Director: | Ms Di McIntyre |
| Grant amount: | R60 000.00 |
| Grant period: | 1 year |

Researchers: Dale McMurchy & Bupendra Makan.

Community health workers are argued to have a crucial role in the delivery of primary health care. There are a number of CHW programmes currently operating in urban, peri-urban, and rural settings in the Western Cape, but there is little information available on the extent of these programmes’ coverage, costs and effectiveness. The jury is still out on the effectiveness of CHW programmes internationally. While CHW programmes are said to address deficiencies in clinic based services, there has been a decline in support for CHWs in some developing countries. Before South Africa embarks on wide-scale introduction of CHW programmes it is recommendable to evaluate the cost-effectiveness of CHWs.

The aim of this project is to evaluate the cost effectiveness of Community Health Worker Programmes in the Western Cape Province by means of:

- providing an overview of CHW projects in the Western Cape
- gathering data on costs, demographics, management and health related activities, and linkages with other health services for a sample of CHWs
- evaluating and comparing cost-effectiveness of sample of CHWs
- estimating the cost implications of extending CHW programmes.

This project is in the initial stages. To date, the research team have initiated an extensive literature review; interacted with several CHW projects to discuss the aim, objectives, and participatory methodology of the
study; compiled a preliminary directory of CHW projects and collected relevant administrative, service, and financial data; and gathered demographic data on the areas serviced by the CHW projects.

As the future role of CHWs programmes is currently the topic of debate, the findings of this study may assist in facilitating that process. It will also provide CHW programmes with a useful model with which to evaluate themselves.

3. ORGANISATION, PLANNING & MANAGEMENT

3.1 The development of a local health service in the Western Cape

| Grantee: | Dept of Community Health, University of Cape Town |
| Programme Director: | Maylene Shun King, Neil Horn |
| Grant amount: | R85 030.00 |
| Grant period: | 1 year |

The Department of Health has recently commissioned provinces to make recommendations on a health information system to inform planning, management and delivery of district/local health services throughout the country, in line with the Reconstruction and Development Plan recommendations.

The Atlantis pilot project, based at the University of Cape Town in the Community Health Department had anticipated this need, and already made progress in meeting it.

District health management principles were adhered to closely: the primary health care approach, intersectoral co-operation and sustainable community participation. The development of health information systems was chosen as the focus, since information systems underpin organisational structure, development and management.

Districts are not yet formalised. In spite of this the project has prepared the ground for co-ordinated information systems development at local level.

The best way to develop management and information systems is through piloting modifications before implementing them on a wide, and possibly catastrophic, scale.

Our Objectives Were To

- Evaluate the current health information systems in the Atlantis area.
- Develop a Minimum Data Set for the area, to inform the delivery, planning and management of health services.

- Promote an integrated team approach across facilities and management levels.
- Develop skills of health personnel in the use and understanding of health information.

Achievements and Successes

- We found that over 200 different documents are filled in by nurses, and analysis showed that very little of that information is used to manage and plan the services!! There is little use for the extensive records kept and little or no feedback to staff on the reports they send out.
- Health priorities were identified at local level, through a process of discussion amongst all health workers in the area. These will contribute towards a Minimum Data Services for the area, by identifying appropriate information and transforming it into suitable indicators.
- Establishment of an interim health committee and health managers reference group for Atlantis to address fragmentation across facilities. They are committed to a process of community participation, and intersectoral co-operation with the Atlantis Development Forum in addressing the local health priorities.
- Participatory Action Research methodology, which contributes to staff development was used in each part of the project, as part of a wider objective to promote an information culture.
- Capacity building of personnel in Atlantis was a priority, especially in the areas of health information, and health systems research. This led to research assistants attending the Public Health School.

The Future

This entails piloting the modification of the existing systems, in conjunction with a minimum data set for management needs.

To achieve this, ownership of the project will be located in the services and a proposal from them to continue the project will be formulated by the reference group and elected staff at facility level.

Sn Anne Herling and Sr Katie Bouwers who co-ordinated the Project Atlantis
3.2 Transforming mental health care in South Africa: The role of the Community Mental Health Programme

| Grantee: | Dept of Psychology, University of Durban-Westville |
| Programme Director: | Ms Inge Petersen |
| Grant amount: | R440 320.00 |
| Grant period: | 2 years |

In order to make mental health care in South Africa more accessible and to redress the inefficient use of resources, there have been numerous calls for the integration of mental health care into the health care system generally, and into primary health care more specifically. This is in line with recommendations of the World Health Organisation which stresses the need for mental health care to be decentralised and integrated into the primary health care system, with general health workers providing mental health care as far as possible. This would address the problem of accessibility of mental health care as well as provide a multisectoral context for comprehensive and integrated mental health care.

Through its partnership with a specific community, the Ngcolosi tribal area of KwaDendenge, and with health authorities servicing this area, the CMHP hopes to develop an approach to planning and intervention in mental health care that has tangible and meaningful results for the identified community. At a broader level the CMHP hopes to generate models for institutional and policy change at local and national levels. This programme thus represents an organically derived fit between the needs of a community with whom the programme has an established relationship, and national imperatives for effective mental health care planning.

In order to achieve this aim the CMHP has the following four objectives, each of which is operationalised through a separate project within Ngcolosi:

1. to conduct an epidemiological study of mental health status;
2. to analyse, restructure and evaluate the mental health system;
3. to develop, evaluate and implement strategies for training primary health care workers to identify and manage mental health problems;
4. to develop strategies aimed at preventing mental illness and promoting mental health.

Collectively, these four projects constitute an integrated research intervention for developing and evaluating a primary mental health care system in a semi-rural peri-urban area with planning and policy outcomes of systemic significance for other similar situational contexts.

Projects 1 and 2

Information on the prevalence and nature of mental health problems in the target community is essential for effective mental health planning. Problems with currently available first stage as well as second stage psychiatric screening instruments indicate the need for a quick screening instrument with high specificity and sensitivity for screening psychiatric disorders as well as psycho-social problems, which can be administered by low to medium skilled personnel in 20-30 minutes and which can provide information on an entire household. Such an instrument should also determine functional impairment and duration of illness and should, with the necessary modifications, be appropriate for use with both adults and children. Project 1 of the CMHP is in the process of developing such an instrument with the aim of conducting an epidemiological study of mental health status within Ngcolosi.

As part of the development of this instrument, a sub study on anxiety and depression in the target population revealed that 49% of 200 health clinic patients interviewed with the Self Reporting Questionnaire scored above the cut-off point for minor psychiatric problems giving some indication of the high proportion of clinic attenders with mental health problems.

Results of the analysis of the mental health system in the target area (project 2) reveals, however, that the majority of health workers in the formal health system do not intervene or refer patients with minor mental disorders.

This is of concern given that the majority of patients identified as having minor mental health problems attend the clinic for physical ailments which possibly have a psychological etiology. Symptomatic treatment is a wastage of resources when the cause can be dealt with through psychological intervention.

Of the clinic patients interviewed (project 1), 33.7% had previously sought help from traditional healers and the results of the analysis of the mental health system (project 2) reveals that many community members seek help from traditional healers and religious leaders for social problems but have associated mental health problems. This indicates that the informal mental health system (traditional healers, religious leaders, teachers, etc) plays a crucial role in mental health care in Ngcolosi and has policy implications which suggest the need for their inclusion in mental health care plans generated for similar situational contexts.

The findings of project 1 and 2 also suggest that semi-rural peri-urban black communities in KwaZulu Natal are unlikely to present in the formal or informal health system with minor psychiatric problems being the presenting complaint. Rather, associated physical ailments or social problems will be presented and this indicates the importance of training health care workers in both the formal and informal health care systems in
the detection of mental health problems so that the intervention is appropriate.

Project 3

This project is concerned with the development, implementation and evaluation of strategies for training primary health care personnel in the identification and management of mental health problems. Currently, information on the existing resources utilised by the community for assistance with psychiatric and psychosocial problems as well as the knowledge, understanding and attitudes of health care workers towards providing mental health care are being analysed before any intervention is undertaken.

Project 4

The fourth project which aims at the development of strategies for the prevention of mental ill health and the promotion of mental health has concerned itself with the problems of teenage pregnancy and alcohol abuse which were identified as two major mental health problems by the community through a rapid appraisal. The project around alcohol abuse has sought to train health workers in basic counselling and problem-solving skills to help them manage the problems arising from alcohol abuse. The project on teenage pregnancy has run focus group discussions and supportive groups with teenage mothers as well as interviewed caregivers with the view to developing a community wide prevention programme.

Conclusion

Much of the work of the CMHP during 1994 was devoted to analysing the current context of the mental health system in the target community. In addition, a national workshop on community mental health care was organised by the CMHP in conjunction with the Psychology Department at the University of Durban-Westville. Tony Reeler, who has extensive experience in the establishment of community mental health care in Zimbabwe, was invited as the key note speaker and also acted as a consultant in the evaluation of the work of the CMHP. In addition, a series of internal workshops have helped clarify the role of the CMHP in contributing to the development of a mental health care system for the developing district health system within which Ngcolosi is situated.

It is hoped that in 1995, given political stability, the CMHP will be able to have a greater impact on the community and policy development through the implementation and evaluation of a mental health system at district health care level.

3.3 Prospects for equalising public health service salaries and other compensation.

| Grantee:     | Dept of Community Health, University of Cape Town |
| Programme Director: | Ms D McIntyre |
| Grant amount: | R65 500.00 |
| Grant period: | 1 year |

Principal researcher:
Max Bachman

Differences between health authorities in salary scales and other forms of compensation (e.g. medical aid cover, pension schemes, transport, and housing subsidies, holidays) are a major obstacle to the development of a unitary national health system. According to the recent experience of many health service managers attempting to integrate, or at least coordinate, functions between staff working in different health authorities, staff perception of unfairly different compensation are, from the point of view of staff, the single most salient problem. There is thus an urgent need for a coherent policy to be developed as soon as possible.

This project proposes to: determine levels of compensation for each category of employee in the different health authorities; determine the numbers of employees in each category; examine methods of job grading, and adjusting compensation for profession, educational level, experience, length of service and performance; evaluate options for achieving parity in compensation for comparable employees over a limited number of years; and quantify the cost implications of adjustments in compensation packages.

In a project of this nature, it is vital to consult and work closely with health services employer and employee representatives to determine their perception and intentions.

A research intern has recently been appointed, and will begin data collection in mid-February 1994. He will participate in the HBU's research trainee programme which is designed to develop health economics capacity in South Africa.

The result of this project will be published in peer reviewed journals as well as in the form of a Health Economics Unit (HEU) Working Paper, which is widely circulated amongst service providers, academics and policy makers. Working Papers tend to contain more detailed data presentation and analysis than is feasible in journal articles.
3.4 The integration of Primary Health Care at the District level: The example of Upington

| Grantee: | Centre for Health Policy, University of Witwatersrand |
| Programme Director: | Laetitia Rispel |
| Grant amount: | R149 767.00 |
| Grant period: | 1 year |

Researchers:
Laetitia Rispel (principal researcher), Jorge Cahral (senior research officer) and Nomvula Marawa (research intern).

Project purpose
This project aimed to develop guidelines for the integration of preventive/promotive, curative and rehabilitative health care services using the town of Upington in the Northern Cape Province as a case study.

Upington has an estimated population of 75,429 inhabitants. Existing provision of PHC services in Upington is fragmented as in other parts of the country. The provision of preventive/promotive and curative (acute and chronic diseases) care is undertaken by clinics under the Upington Municipality, private general practitioners and the local community hospital. Public health services are financed by the Municipality, various national programmes of the Department of Health, the Provincial Administration and the South African Institute of Medical Research.

Project objectives and components
The specific objectives of the project were to:
1. Determine the need for primary health care services for the population of Upington;
2. Determine personnel, facility and financial requirements;
3. Identify the perceived health care needs of individuals and groups in the Upington community;
4. Determine the degree of collaboration, coordination or integration between different providers, authorities and programmes for health care, as well as the constraints and opportunities in that regard.

To achieve these objectives the research consisted of the following components:
1. Describing the characteristics of the study population;
2. Identifying the resources (both public and private) that are available for the delivery of primary health care in the catchment area as well as the behaviour of the public private mix of providers;
3. Determining utilisation of a broad range of primary health care services;
4. Determining the facility and personnel requirements for primary health care;
5. Evaluating the quality of care;
6. Costing the delivery of care.

The process of the research project
The project has contributed significantly to the research experience of Ms. N. Marawa, one of the research interns in the Centre for Health Policy.

In this project, the research team was also committed to achieving community and health worker participation. All the major stakeholders at Upington were identified, and included: community organisations (such as civic associations, church groups, women’s groups), different public authorities and private health care providers.

Introductory meetings were held with management of clinics or private sector providers with the objective of ensuring support for the project. Various meetings were also held with community groups.

The draft technical report was discussed with staff and managers of the municipal clinics as well as with some of the private general practitioners, the superintendent of the local hospital and community groups.

Dissemination of results and recommendations
In addition to the communication of results to local providers, managers and community representatives, journal articles aimed at the research and academic community are planned. The results of the project will be presented at a workshop organised by the Centre to involve as many health care stakeholders as possible.

A final technical report will be given to the Health Systems Trust, to the various stakeholders in the area and will be available from the Centre for Health Policy.

Main findings of the project
Basic demographic and socio-economic data for the population of Upington municipality reflect differences in living conditions, access to services and health status between population groups.

The report describes the resources available for the provision of primary health care (particularly personnel and facilities) as well as the services available. Upington has a reasonable network of public and private facilities, with good infrastructure.

The municipal clinics provide mainly preventive care and limited outreach services. However the actual service delivery is characterised by lack of integration and limited capacity to provide curative care services and to deal with emergencies. The curative care limitations of the municipal clinics create a massive unmet demand for curative services.

The report discusses various aspects of the utilization of primary health care services. Compared to the
private practitioners, the public sector clinics display a much lower number of activities per staff per day. The number of services per staff per day varies from 7.5 to 38.5, with an average of 22.4 services per staff per day in the public clinics.

Fifteen general practitioners provide mainly curative care. Their willingness to cooperate more actively with public plans for primary health care provision is limited by scepticism regarding the present constraints of the public sector.

Based on the data for services delivered during the years 1992-1993 the utilization rates for the population as a whole and for different risk-groups were estimated.

In 1992/93 an overall utilization rate of 3.3 services per person per year was estimated. However, there are differences between sub-groups of the population, with an estimated utilisation rate of 2.5 for the historically disadvantaged groups and 6.7 for the historically privileged groups.

Similar differences between social groups are maintained when utilisation rates were broken down by age and gender by type of service. The results highlight an unmet need for curative services particularly for paediatric curative care. All the age and gender groups are well covered with available preventive services.

The perceptions of users of services indicate that the geographical access to the public clinics poses no obstacle to utilization, but there is room for improvement in the perceived quality of care delivered, particularly at the crowded practices of the district surgeons.

The report gives an overview of personnel resources for the delivery of primary health care. Available human resources in the public clinics suffer from insufficient management, supervision and almost total lack of technical support.

The quality of care assessment has shown that within the municipal clinics extreme workloads interfere with the quality of the services offered. The public facilities however score reasonably well for their outreach services. Private facilities score better than public clinics in both criteria related to infrastructure and processes for the clinical management of chronic diseases.

The review shows that women's health services are limited to the provision of reproductive health services and aspects of both family planning and antenatal care need improvement. Suggestions are made on how to improve current service delivery, and to move beyond the provision of reproductive health services to comprehensive women's health services across the life span.

The report presents the costs of the present delivery of health care by municipal clinics and a sample of private general practitioners (including one of the district surgeons). The public sector PHC services in Upington are financed through a variety of sources: this may contribute to a certain mismanagement of resources, and has implications for decentralization of services.

The services rendered by the municipal clinics are not necessarily cheap. The cost per consultation varies from R 17 to R 68. Variations of unit costs between clinics are thought to be due mainly due to variations in the number of services per staff per day.

The costs of the services provided by the private GP's have a larger component of costs of pharmaceuticals and equipment than the public clinics. The range of estimated costs include assumptions about personal earnings of the GPs.

As expected, the services of the district surgeon were among the cheapest in Upington, reflecting the high numbers of services provided with the limited human resources.

The study estimated the per capita expenditure on primary health care from public sources. This varies from R 50 (minimum) to R 65 (maximum) for the total population, to R 51 minimum to R 67 maximum for the poor citizens.

The conclusions of the report are the following:

- Although there are gaps, the network of PHC facilities in Upington offer a relatively comprehensive range of services;
- Certain aspects of quality of care need improvement;
- The available facilities seem to be reasonably accessible to the majority of people;
- The network of health facilities in Upington still presents many manifestations of inherited fragmentation and inequity.

Recommendations include:

- Improving the utilization of services for the majority of the population;
- Improving the delivery of services by the public facilities (particularly the municipal clinics);
- Enhancing the contribution of the private general practitioners.

The role of the Municipal Health Directorate is discussed in the light of proposed decentralization policies.

3.5 Primary health care for workers and their dependants in a typical industrial area in Cape Town

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<tr>
<th>Grantee:</th>
<th>Dept of Community Health, University of Cape Town</th>
</tr>
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<tbody>
<tr>
<td>Programme Director:</td>
<td>Ms Shirley Millet</td>
</tr>
<tr>
<td>Grant amount:</td>
<td>R76 180.00</td>
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<td>Period of grant:</td>
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Occupational Health Legislation has been introduced which will engender a greater level of service provision at the workplace. There have been few studies on the utilisation of healthcare, healthcare cover and workplace services available to workers. Previous studies have focused on existence of facilities. Workers’ perceptions of these facilities have been largely ignored. The aim of the study was to investigate the access and utilisation of employees and their dependants to both general and occupational health services in a representative area within greater Cape Town. The findings indicated that employees’ choice of provider was the private General Practitioner. Most employees wanted workplace health services, but present utilisation was restricted to minor complaints and obligatory examinations. The independence and objectivity of medical personnel at the workplace was a crucial issue and further investigation needs to be done on the location of workplace service so that they can expand their facilities to include comprehensive primary healthcare to employees and their dependants.

3.6 The Agincourt Health Systems Development Project

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<th>Grantee:</th>
<th>University of Witwatersrand, Health Services Development Unit</th>
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<tr>
<td>Programme Director:</td>
<td>Dr Steve Tollman</td>
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The Agincourt Community Practice Project is a partnership between the Health Services Development Unit, the Tintswalo Health Service, and local communities. Located in a sub district of Bushbuckridge, in the North-eastern Transvaal, it contributes to the Bushbuckridge District Health Initiative through three interrelated project areas: demographic and health information (discussed in the 1993 HST Annual Report), community organisation, and health systems development (see figure 3).

The Health Systems Project addresses appropriate models for health service delivery at sub district level. The Project, which operates in an isolated, infrastructurally underdeveloped area, is fully linked into the rural public health sector. This allows successful innovations to be easily transferred, and encourages a “learning-by-doing” approach. (The other major health centre in Bushbuckridge is also now involved.) To support this process, the Tintswalo Health Service has seconded staff to the project, and is strengthening its co-management role on the project.

The Project aims to:

1) develop a referral network that integrates health centre and clinic with both hospital and community;

2) develop and evaluate community-oriented approaches to women, child, and mental health;

3) contribute to district health system planning.

Progress

Integrated referral network

Reorganising the Tintswalo Health Service to overcome its delivery problems is beset with difficulties - inefficient and cumbersome bureaucracy, poor managerial capacity, hospicentric planning. A successful process of reorganisation developed in Agincourt will go a long way towards solving similar problems in other rural services.

Development of the Health Centre and surrounding clinics as an integrated health unit responsive to communities in its catchment area is a major focus. Decentralisation of authority to the health centre manager and greater decentralisation of services require a simultaneous process of developing managerial and clinical skills. Determining appropriate “packages of
The Agincourt Field Practice Project
care" at clinic and health centre is closely tied to establishing referral patterns between these facilities. Managing clinic support from the health centre instead of the hospital has implications for staff requirements and skills at this level.

Information on the project is discussed with community members at village gatherings. Elected health committees represent community interests to health managers. Greater and more meaningful community involvement is sought.

**Primary Health Care Laboratory Project**

This project, a collaboration with the SAIMR, is one example of the “step-up” of care offered at Agincourt. A small laboratory, with a locally trained technician, is providing a range of simple investigations to enhance the treatment and management skills of staff at the health centre. Training of nursing staff and establishment of a reliable transport system are components of the project. Through evaluation of the Agincourt laboratory the SAIMR will learn about peripheral laboratories in infrastructurally underdeveloped areas.
Community-oriented approaches to women and child health

Principal causes of death have been studied through the verbal autopsy technique. Malnutrition, diarrhoeal diseases and household accidents are the main killers of under-5's. Problems identified by communities are those of teenage pregnancy and STDs.

The project is comparing the benefits of "community health workers" with a "social mobilisation" approach. The key feature of social mobilisation is to use existing community groups to educate and advocate around health and health rights. Community participation, "information-for-action", and links between community and clinical care are key features of both.

Each approach will be evaluated and compared with the other to determine which is more effective in achieving individual behaviour change and community organisation around health and development issues.

Community-Based Mental Health Programme (CMHP)

"Born of a crisis", the CMHP aims to address inadequacies in mental health provision - first by stimulating community participation in mental health care, and second, by advocating for decentralised mental health services away from the hospital to the community level.

A needs assessment study is complete. This examined the needs for mental health care amongst different sectors of the Agincourt community, and identified local resources that can play a role in addressing these needs. In addition, a support group, the "Sizanani Club", has been established for psychiatric clients. Members meet once a month to discuss issues of concern, share experiences and visit those who have missed a meeting without a known reason.

Currently underway is analysis of those needs expressed by various community members. This aims to develop appropriate interventions, and play an advocacy role for needs that cannot be tackled directly by the CMHP. Healthy working relationships have been established between the core CMHP team and community leaders and members. These are expected to lead to effective partnerships between academic institutions, health services and the community in mental health care.

Contribution to District Health System Planning

Experiences from the Agincourt Health Systems project are being used to inform and influence the Bushbuckridge Interim District Health Authority (DHA). Members of the DHA contribute to planning of the Agincourt work, and the work itself addresses questions that the DHA has set for its task groups.

Capacity Building

Capacity building of health service providers takes a variety of forms: "twinning" with skilled project staff, shortcourses, conferences and meetings in South Africa and abroad, and visiting other projects and services.

The project has recently become part of a World Health Organisation network on health centre development, and is contributing actively to this.

3.7 The development of a Health Plan for the Eastern Cape

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Introduction:

The Eastern Cape Development Unit functions as a corporate body since July 1994. It is the brainchild of the now defunct provincial patriotic front. This unit has objectives and goals to achieve.

Objectives:

The unit’s objectives are four:

(a) To compile demographic data which entails also collation of available information in the province. Evaluate accuracy of available information and adjusting estimates accordingly.

(b) To establish health needs for the province, identify health needs and research previously undertaken in the region. Evaluate quoted health indicators for the province. Undertake relevant research to establish health indicators for the region. Conduct community surveys to identify community expectations of health needs and health services.

(c) Assessment of existing health services:

To create a database of existing health services and health personnel in the region. Evaluate current health expenditure in the region. Evaluate existing health administration in the region.

(d) To develop a health plan for the region. Such a Health Plan will be the primary aim of the programme and will be directed towards realizing the goals defined by the Health Sector of Reconstruction and Development Programme (RDP).

Staffing:

However due to problems related to administration the unit had to change its objectives minimally to suit what could be done by the unit in limited time and capacity. This report therefore is based on intended objectives but actual met objectives. The unit is a one office in the Old Ciskei Government Offices. The unit has been
organising and facilitating the information commission in the province. The part he played in the establishment of the health information system commission in the Eastern Cape Province is highly commendable.

**HealthLink**

HealthLink is hosted by the development unit. HealthLink committees provincially and regionally have been established. There is a HealthLink Co-ordinator. The meetings organised by the office unit identified areas for pilot project in the Eastern Cape in Umtata and Ciskei.

**Long term plans**

The office unit is to merge with the provincial information unit once the provincial administration is in place. This unit will be a developmental node for the information system in the province because of the health information it has collected. The unit, though it will have been melted into the information system unit will need to continue to achieve the objectives which were set at the initial stage of the project. As indicated earlier in this report some of the objectives were never met because of time but are still important in development of health in this province. More funding from organisations like Health Systems Trust will be needed to advance the work already started. Funds from such organisations are more important if one has to consider the establishment of a health information structure in the whole of the Eastern Cape which did not have one before. The Eastern Cape province is characterised by poor health services, more especially in the old homelands of Transkei and Ciskei. Besides inaccessibility to health services, it has fragmented administration which warrants significant rationalisation of both human resources and other material resources. Without a sound Information System, structural development planning will continue to be a dream.

**Problems encountered in running the Unit**

(a) Lack of funds

The unit functioned under very difficult conditions because of unavailability of computers in the unit.

(b) Inaccessibility to Information

Because of fragmentation of health services in the Eastern Cape collection of data from various administrations was treated sceptically and distortion in the collection of data might have occurred. This made this unit to question the quality and validity of the data collected. The unit would need to undergo an intensive auditing of the information collected.

**Staffing**

As the process of integration went on, the personnel in the unit were overwhelmed by the information needs from the several commissions. Besides too much
requests and high expectations from the information users, there was a tremendous sensory load. This information load was accompanied by a lot of paper pollution as several administrations were sending their raw unprocessed data to the unit.

Poor feedback loop

The problem of shortage of personnel made this unit to have a poor feedback loop to those who needed to know. The reports that went to consumers of information have been based on specific demand and supply.

The unit at present is working hard on two formal reports. These are going to be sent to the MEC office and regions. Our report is on Human Resources and is called “Human Resources Directory” since there is superficial analysis of data on Human Resources. Another report is on physical facilities and comprises the location of facilities.

Training courses

The two research interns attached to the unit have attended the following training courses:

(i) Epidemiology
(ii) Nutrition surveillance
(iii) ReHMIS
(iv) Research Protocol Development
(v) Writing skills and Presentation

Evaluation

1. The unit despite problems has done tremendous work during this period of integration, rationalisation and planning of Health Services.

2. The Research Interns in the office have acquired a lot of skills during their training process. The extent to which the Research Interns have developed their skills is measured by the work they do in the unit and their full participation and contribution in meetings and discussions.

Recommendations and suggestions

1. More research interns should be employed and be attached to the Information Units at Provincial, Regional and District levels. Such training will help to develop capacity for Information Units at levels. Such training should be extended even to community members who will be involved in data collection.

2. Computers for training of Research Interns should be bought for all levels to avoid centralisation that will delay capacity building at all levels.

3. Training offered should not be theoretically based only. Some practical training at all levels should be provided around computer training, collecting, collation, capture analysis and interpretation of data.

4. Training should also be extended to managers as end users of information. Most managers cannot use the information presented to them.

3.8 Review of the New Durban Academic Hospital at Cato Manor

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<tr>
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<td>Dr CC Jinabhai</td>
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<tr>
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During the latter half of 1993 and during the early months of 1994 there was a great deal of thinking; involving politics, economics and social and humanistic values. Much new thought was thrown into the arena and old positions and attitudes were re-examined and often changed.

Caught up in this wave of change was the decision of the previous government to build large new academic hospitals in Pretoria, Garankuwa and Durban. For political as much as for financial reasons a moratorium was put in place in 1993 to stop all building activities on these hospitals and to review the wisdom of continuing to develop large academic hospitals.

In Durban, a Technical Committee was created by the National Health Forum and the Regional Health Forum to re-examine the plans to build a 1 025 bed hospital at Cato Manor. This committee consisted of representatives from various government Health Services Rendering Authorities, representatives of the Patriotic Health Front and of the University of Durban-Westville and of the Natal Medical School in the person of the Dean, Professor J. van Dellen. Professor J. Moodley was appointed Chairperson.

The Technical Committee commissioned this Review Group, consisting of the Head of the Department of Community Health, Dr C. C. Jinabhai, Registrars from his Department, a Project Manager and Secretary, to carry out the research and to make recommendations. The process has been funded by the Health Systems Trust.

The brief

Although the brief to the Review Group was very specifically focused on the New Durban Academic Hospital (NDAH), it did require the study to examine any NDAH in the perspective of a Regional Health Plan. This necessitated a much wider approach including a study of Academic Health Centres elsewhere in the world (Canada, USA, Australia, as well as some developing countries); and of trends in education and in health care delivery.

Process

The Review Group attempted to obtain as wide a
perspective as possible by interviewing as many people with a broad spectrum of views as we could and by conducting an extensive literature review.

Four commissions were created to study various aspects of the problem. The first studied the Epidemiological and Demographic Implications, the second examined the Existing Physical Facilities in the Durban Functional Region and attempted to make projections for future needs. The third commission looked at Human Resources in the Durban Functional Region and also attempted to examine needs for the future. Finally, the last commission studied the Cost Implications of building a NDAH as initially planned or of various alternative scenarios including a brief look at opportunity costs if the NDAH were not built.

The project as a whole was privileged to obtain the assistance of Professor H. Jack Geiger, Logan Professor of Community Medicine at the City University of New York. His wide experience in health planning and the provision of health in primary care settings, his long association with academia and his previous visits to Durban and South Africa made his input extremely valuable.

Discussion

Despite the limitations of a study carried out in a very short time, certain trends were identified which confirmed previous impressions. Most of the information gathered was neither surprising nor anticipated.

Overall, past inequities, the lack of strategic health planning and the limited available resources were highlighted. While some of the research and results were quantitative, much of the evaluation was qualitative in nature.

Some important conclusions were identified:

• Present demographic data is grossly inaccurate so that projections of population growth can vary within wide limits. Nor can variables such as the effects of rapid urbanisation, the AIDS epidemic, an improved Primary Health Care Programme and an improving economy be predicted.

• However, it is clear that the present population of approximately 8 500 000 in KwaZulu/ Natal will increase to an estimated almost 10 000 000 in the year 2000.

Nevertheless, estimates of current and future bed needs were made.

• The survey of the number of patients being treated at various levels of care (See Annexure 2 of main report for definitions) in nine hospitals in the Durban and Pietermaritzburg region confirmed that inappropriate use of expensive health facilities is occurring on a wide scale.

• A more efficient decentralization of health services with appropriate levels of care closer to the populations who require them, would improve the efficiency and effectiveness of the referral and tertiary hospitals and reduce the heavy load on facilities and personnel in those centres.

• The survey on the levels of degradation of the buildings in nine large hospitals in the Durban/ Pietermaritzburg area showed that many buildings were severely impaired and some even beyond repair.

• However, this survey together with the evaluation of other facilities confirmed that a large number of beds suitable for academic purposes exists in the Durban/ Pietermaritzburg area.

• The literature review and contacts with the international experts revealed that large hospitals, so popular in the 1960's and 1970's are no longer considered to be effective. The trend is now for hospitals no larger than 400 beds.

• In the same way as data on demography was difficult to obtain and projections almost impossible, so information on the numbers, categories and mix of health workers was inaccurate or nonexistent.

• However, although some of the metropolitan areas may be over-serviced, large areas of the Natal/ KwaZulu hinterland have unacceptably low numbers of health workers.

• The policy of the Medical School regarding an integrated Faculty of Health Sciences is in the melting pot at the moment. Whatever conclusions are reached will vitally affect any new construction.

• The medical curriculum is also under constant review and will no doubt be affected by new trends as teaching is replaced by student oriented and student triggered learning. This, together with the possible inclusion of other disciplines of health workers and possibly new categories, will also dictate the needs for conference/seminar rooms within the NDAH.

• Other factors, not directly dealt with in the main report, such as the interaction of the public and private health sectors and the role of traditional healers will impact on future decisions.

• The study on the cost implications of the various options surrounding the building of the NDAH and possible alternatives, on the National and Regional Health Budgets has shown that there is no doubt that building a smaller NDAH than initially planned would save large amounts. This in turn offers the opportunity to develop in other directions.

• Funding implications of major projects are so dependent on such factors as national policies, the national budget and the state of the economy, that any future trends are impossible to anticipate.
• The current fluidity surrounding so many of the factors affecting health decisions, presents a unique opportunity for decision-makers to pioneer a more equitable, more appropriate, more integrated health system based on a new Academic Health Complex. It is hoped that the ongoing studies of the four commissions will continue to facilitate the continuing evolution of the University of Natal Medical School.

Recommendations

The Review Group has thus sought what it considers to be the best solution, not the cheapest nor the most politically convenient.

1. Build a 500 bed (300 - 500) Academic Hospital at Cato Manor for mainly quaternary and level 3 care designed to accommodate state-of-the-art services, teaching and research functions, as a centrepiece of an Academic Health Complex. This would represent the apex of an integrated health service. It should be planned for flexibility so as to allow modifications and possible expansion in years to come.

2. Also as part of the development of the Academic Health Complex:

   2.1. Upgrade +/- 1 000 beds at Addington, Prince Mshiyeni, King George, Wentworth and RK Khan Hospitals to provide level 3 care under the academic aegis of the Medical School; preserve the most modern units at King Edward VIII Hospital with the goal of providing +/- 500 beds mainly for level 3 and some level 2 care; consider upgrading some beds for teaching purposes at Pietermaritzburg.

   2.2. Through upgrading or building, achieve a total of +/- 8 000 beds in the Durban Functional Region for mainly level 2 care (Note the time lag required for planning and building).

   2.3. Plan and execute an effective Primary Health Care program based on the District Health System involving service, teaching and research. This will require the upgrading or construction of a number of Academic Community Health Centres, as an integral part of the Academic Health Complex, for community-based ambulatory care teaching. Provision should also be made for appropriately structured and supervised undergraduate and graduate clinical experience in selected rural facilities.

3. The Medical School will of necessity have to stay on the King Edward VIII site for some years because of the delays of the planning process. Whatever decisions are eventually made in terms of integrated teaching of all the Health Sciences and the amount of teaching at other levels than level 3 and 4 will help to determine whether the Medical School is moved to another site or expanded and remodelled on the King Edward VIII site. In either case, design planning should include provision for small-group teaching, appropriate seminar rooms and other educational resources.

4. Other processes which need urgent action as part of the evolutionary change.

   4.1. A Regional Health Plan must be formulated as soon as possible. The development of the Durban Academic Complex can be seen as a first step in a Regional Health Plan. It should make provision for the development of strategic planning and formal structures for the formulation of policies based on an efficient Health Information System.

   4.2. Decisions regarding the possible integration of all Health Sciences in a Faculty of Health Sciences will vitally affect the nature of the Academic Health Complex.

   4.3. An in-depth study of the Human Resource Needs of KwaZulu/Natal, including the mix of professionals and other health workers is needed. Its conclusions will also affect the nature of the Academic Health Complex. New categories of health workers may be required e.g. medical rural health specialists, health administrators for health districts, appropriate nursing personnel, rehabilitation workers, etc.

   4.4. A Faculty committee will have to decide on the necessary provision of accommodation for the different disciplines in the NDHA and in the other Durban hospital facilities included in the Academic Health Complex. This committee should if possible be involved in the planning stage of the NDHA.

   4.5. A strategic plan is necessary to avoid unnecessary spending on buildings with a planned, limited lifespan. Thus expensive maintenance work on for example, buildings at King Edward VIII Hospital destined for scrapping could be prevented.

   4.6. As part of the Regional Health Plan, the process of decentralisation of health services and devolution of responsibility down to health districts needs to be given an impetus. The Faculty is probably best suited to provide this impetus as its teaching, research and service responsibilities gradually extend to all levels of health care.

   4.7. The expenditure on the development of an integrated Academic Health Complex should be seen as an investment in healthcare planning which will extend its influence throughout the Region and nationally and act as a resource base and springboard from which Primary Health Care can develop.
4. INFORMATICS SUPPORT TO HEALTH CARE

4.1 Towards a spatial, rural health system

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<tr>
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<td>Dr David le Sueur</td>
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The first major update of the Malaria Information System (MIS) database was carried out. New data relating to tribal address, school and clinic attendance/catchment, was added. A collaborative link established with the Department of Agriculture, Cedara (K.O. Bang) resulted in 15 Global Positioning System (GPS) units being purchased and lent for the current update. This has enabled us to equip approximately a third of the teams with GPS units and will mean that a large portion of the database will be “plotable” household level. The department of agriculture will use the spatial demographic data to facilitate their RDP initiatives in the Ingwavuma/Ubombo magisterial districts. Ultimately it is hoped that all the teams will be equipped with units (56 in total), thus allowing the entire database to be geo-referenced in a four month period.

A number of staff changes occurred, with Rajendra Maharaj taking a position with the Department of Health and Maria Stuttard left for Lancaster to do her Ph.D after completing her MA (Geography of Health) with the project. Joyce Tshoka joined the project and will carry out a study (towards a Ph.D) on clinic catchment and service delivery, which will include some of the aspects identified as priorities in the health research priorities of the RDP.

The system was used to design a study which will compare the control efficiency of insecticide impregnated bednets (horizontal vector control strategy) to the current method of the indoor residual application of DDT (vertical control strategy). The study was submitted to WHO/TDR and the IDRC for funding and during review their major query was that they felt there was insufficient disease incidence for an effective conclusion to be obtained. However using the Geographical Information System (GIS) established in this project it was possible to select high risk areas based on 16 years of retrospective disease mapping. The malaria cases for the period 1987-1993, were then linked to the individual family homesteads (Figure 4) and then an experimental block layer consisting of 14 blocks was drawn and superimposed on this geographical, incidence data set. The boundaries of the blocks were then manipulated so that each block had a annual incidence of approximately 5%, except for blocks 1 and 2, where the incidence was greater than 7%. The data was then attached to homesteads, for each year (4 years shown in Figure 5), the “experimental block layer” overlay and the incidence data for each block was “extracted” using the GIS. This allowed the blocks to be compared statistically over the 7 year period and test whether certain test blocks were homogenous over the 7 year period. In this manner it was possible to select blocks (Figure 6) which will be subjected to the two different intervention methods and in which a 3% change in incidence will be significant at the 95% confidence level. Thus application of the GIS to the design of this project made it feasible for such a study to be carried out despite the reduced malaria incidence (due to effective control activities in the Province). The results of an impregnated bednet study will have implications for the entire southern African region, which has the same vector species, similar transmission dynamics and relies on the indoor application of residual insecticide, for malaria control.

4.2 A pilot study for the use of Geographical Information Systems (GIS) in planning health services for the Durban Functional Region

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<tr>
<td>Programme Director:</td>
<td>Prof D V Soni</td>
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<tr>
<td>Grant amount:</td>
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Supervisors:
Professor DV Soni (Director of the Health Research Unit and Head of Department of Geography, UDW)
Dr CC Jimbhati (Head of Department of Community)

Principal Researcher:
Ms Priscilla Cunnan (Health Research Unit, UDW)

The legacy of South African apartheid ideology has resulted in: the dominance of certain groups in policy and planning of health care; the uneven distribution of health services; unequal funding of segregated facilities and grossly inadequate access to health care services for the disadvantaged majority. In February 1994 the Department of Geography UDW, and the Department of Community Health UND, decided to pool resources and expertise in an attempt to contribute meaningfully to the reconstruction and development of the health care delivery sector. This joint venture gave rise to the Health Research Unit which is based at UDW and funded by the Health Systems Trust.

The Unit is based in the Department of Geography UDW, primarily because of the Department’s recent focus on firstly, a subdiscipline called medical geography which specialises in medical issues with a spatial dimension and secondly, the establishment of a Geographical Information System (GIS) Unit. Loosely, GIS is a form of information system applied to geographically referenced (spatial) data as well as non-spatial data and includes operations which support
Figure 6: Comparative malaria incidence for homogeneous experimental blocking

**Block 1 vs 2**

- □ Block 1
- ◦ Block 2

**Block 3 vs 5**

- □ Block 3
- ◦ Block 5

**Block 8 vs 10**

- □ Block 8
- ◦ Block 10

**Blocks 11 + 13 vs 12 + 14**

- □ Block 11 + 13
- ◦ Block 12 + 14
spatial analysis. 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 researcher with answers to "what if" questions with a spatial dimension. This enables the researcher to visualise various scenarios and solve or contemplate solutions to complex planning and management problems.

The Unit is currently involved in a pilot study which aims to investigate the potential for using GIS as an innovative tool for health policy formulation and planning of health service delivery in the Durban Functional Region (DFR). This study signals a departure from previous methodology used to determine need, provision and location of health care services and facilities. While it focuses on the perceptions of the users with the intention of nurturing and supporting the process of community-participation, it also aims to present the results of the research to the communities involved with the view to empowering them to make informed health care development decisions. The idea is to promote the involvement of communities in the transformation of social structures that have previously created ill health. In addition, GIS technology will be used to map spatial relations of factors such as the residential location of the users of the four chosen facilities thereby determining the actual catchment areas of these specific facilities.

A catchment population is the size of the population served by a health facility irrespective of their district of residence. Catchment studies are important as they provide vital indicators needed to determine the real access to health services. Part of this study investigates factors which influence utilization and accessibility; this is important because the monetary costs of actual "health services" are in reality a minor cost to the indigent user. Transport costs together with time constraints are usually insurmountable barriers which exclude a significant proportion of people needing health care. Indeed, even if the government were to provide "free" health care to the poor, the distance from the persons residence to the health care provision service centre (which basically constitutes catchment area) may actively deny health services to those who are unable to meet specific time and transport requirements. The determination of suitable catchment areas which may best serve the needs of the people is therefore of vital importance when the planning of health care centres are considered.

This study focuses on four health facilities i.e. one clinic, two health centres north of the Umgeni River in the Durban Functional Region (DFR) and one hospital situated in Congella, south of the Central Business District (CBD) of the City of Durban.

i) Bester Clinic - During 1990 a needs survey conducted with the permission of the Development Committee and the Street Civic Structures identified the need for a permanent clinic in Bester, an area in Inanda. In 1991 the Urban Foundation built the clinic on a vacant site allocated by the Civics and in November of that year it offered full clinic services. The clinic is situated in a hall like structure with five cubicles along two walls and a reception area in the middle. It opens at 7:30 am on four days of the week and is closed on Mondays and weekends. Bester Clinic provides eleven services simultaneously and has an average attendance of 150 per day.

ii) Halley Stott Health Centre - situated in the Valley Trust, it was initiated in 1951 by Dr HH Stott. It had a total attendance of 52,290 from April 1993 to March 1994. Their Primary Health Care (PHC) Programme has a dual role of firstly improving access to and quality of health services and facilities in the area and secondly promoting better health through various health education programmes. The centre is open from 7:30 am to 4 pm (Monday to Friday). All thirteen services are not available everyday and some services such as psychiatry are only available twice a month.

iii) Phoenix Health Centre - situated in the City Council residential area, Phoenix. It was opened in February 1985. It has twelve departments which are available from 8 am to 4:30 pm (Monday to Friday) and 24 hour maternity ward. It has an average attendance of 800 per day.

iv) King Edward Hospital - A regional academic and tertiary referral institution, it serves the whole KwaZulu Natal region in addition to the former Transkei homeland. The hospital consequently not only handles the highest risk category of patients across the spectrum but also the most severely traumatised. King Edward VIII hospital started off as a 600 bed facility but now has 2000 patients at any one time, many of whom have to sleep on the floor.

Interview schedules were administered in English and partly in Sotho and Zulu to every fifth patient in the outpatients queue at Bester Clinic and the Phoenix Health Centre. Interview schedules were also administered in the same manner to every fifth patient in the various departments of the Halley Stott Health Centre and King Edward VIII Hospital. The interview schedule obtained information on the residential location, socio-economic data, factors which affect utilization and accessibility (eg. cost and mode of transport, length of time spent travelling to and from the facility), awareness of the number of services provided and perceptions of the users regarding the service provided and the ideal location of future clinics. The researcher is currently in the process of analysing the data collected.
While a comprehensive report on the collected data forms the next phase of this project, preliminary analysis indicates the following:

Bester Clinic - Twenty six percent of the respondents were resident in the neighbouring township of Kwa Mashu. All of the above lived in M Section which is on the border of Kwa Mashu and Inanda. Twenty five percent were from an area called Inhlungwane (area 20 of Inanda) while 19 percent lived in Besters (area 21 of Inanda). Thirty two percent of the respondents did not use the services of other facilities while 30 percent utilized the services of Kwa Mashu Polyclinic. The majority of the respondents used the clinic either once a month (34 percent) or once in three months (31 percent). An overwhelming majority of 92 percent walked to the clinic and therefore did not incur any transportation costs. The average length of time spent travelling to the clinic was less than an hour. With regards to community participation, 59 percent indicated that they would be interested in nominating a representative from the community to serve on the Phoenix Health Centre management board. Thirty two percent volunteered to be personally involved while 8 percent said the community was not properly trained to participate in decision making.

Halley Stott Health Centre - Most of the respondents (39 percent) were from the tribal area of Nguswa and the second largest percentage of respondents came from the tribal area of Embo. However, some patients did come from outside the five tribal areas and the furthest place recorded was Table Mountain. Thirty five percent visited the centre on average once a month and another 25 percent needed to use the services of the centre as frequently as once a week. The majority (47 percent) used a minibus for transport to the Halley Stott Health Centre. Between two to four rand was the most common cost of transport to the centre and the majority of the respondents (57 percent) spent less than an hour on the return journey to the centre. Community participation in the decision making regarding the health needs of the community were considered very important. Fifty four percent of the respondents wanted to be personally involved and 40 percent would be interested in nominating a representative if the community were to be empowered with decision making.

King Edward VIII Hospital - Data has not been analyzed as fieldwork was only completed as recent as 25 January 1995. This delay in completion of fieldwork was due to a nursing staff strike at the hospital. Conducting a survey during such times would have been dangerous for the fieldworkers and would have produced a bias.

Once the interview schedules have been completely analyzed, GIS technology and principally Atlas GIS will be used to generate catchment areas for this study. Maps on a 1:50 000 scale will be used and the information regarding the residential location of the respondents will be utilized to determine x and y co-ordinates of that point. The Urban Foundation has the entire Inanda area geo-referenced and the Department of Land and Development in the Durban Municipality has the Phoenix area geo-referenced. For King Edward VIII Hospital magisterial districts will be used because it has already been estimated that the catchment area will be large. The aim of the Halley Stott Health Centre is to serve the five tribal areas in the Valley Trust area. Time constraints of this project do not allow for the researcher to obtain the xy coordinates of the household of each respondent but just concluding for example, that 5 percent of the respondents live in the Embo tribal area will be insignificant. Therefore, the researcher has decided to use the schools in the tribal areas as points of reference as all schools were geo-referenced in 1992. Thus, it also becomes the task of this study to geo-reference any schools that have been built
facilitate planning decisions to rectify the gross inequalities in health care delivery. Current health planning requires a re-orientation on the part of professionals, policy-makers and researchers. There is a dire need to target communities as areas of intervention. Focus at the local level will raise issues of local concern and provide data for policy and planning. Therefore, there is an urgent need for the development of practical and theoretically sound research strategies for improving health. Once this pilot study has been completed the Unit intends to undertake a larger study which will incorporate health facilities in the entire KwaZulu Natal region. Finally, we hope that the completed project will impact significantly in both supporting and stimulating critical inquiry into the present state of health care policy and planning.

4.3 The development of a health information system to optimise PHC in the Free State.

<table>
<thead>
<tr>
<th>Grantee:</th>
<th>Centre for Health Systems Research, University of Orange Free State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme Director</td>
<td>Prof HCJ van Rensburg</td>
</tr>
<tr>
<td>Grant amount:</td>
<td>R460 000.00</td>
</tr>
<tr>
<td>Grant period:</td>
<td>1 year</td>
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Most provincial health services are still in turmoil after the demarcation of new provincial boundaries in 1994. Several amalgamated, some brand new and a few seceded provincial health authorities are being faced with the challenge to meet several newly devolved responsibilities and duties with limited resources. The Free State is indeed fortunate in that its provincial boundaries have remained fairly intact, with only Qwa Qwa and Thabana Nchu added to its administration. This meant that no expertise and personnel were lost to other provinces - the original personnel corps was in fact extended. Also, a highly capable and dedicated Health Strategic Management Team set about the establishment of a new provincial health structure which is expected to become operational within the immediate future. This enabled provincial health authorities in the Free State to continue rather undisturbedly with meaningful initiatives in the field of PHC which, although on the cards before the April 1994 elections, are fully in line with RDP priorities in regard to health.

The PHC/INFO project is an example in point. This partnership-project between provincial health services, the Centre for Health Systems Research and the community of the Free State is aimed at building capacity and infrastructure within the provincial health services to implement and sustain a comprehensive health information system that will take the planning and management of need-related PHC services into the future. During 1994, expert consultants have been working together with health personnel and community
RESEARCH PROGRAMMES

representatives in eight specialised task groups to develop strategies for putting different components of the envisaged health information system in place. The following strategies have been developed or are currently being finalised:

- a strategy that provides for transparent, participatory financial resources management and accounting at various levels of management;
- a strategy according to which personnel will be trained to critically view their information needs, as well as to record, process and report the new essential routine data set, and also to operate a computerised data capturing process for PHC;
- a strategy for training personnel in the methodology and practice of community-based research so that routine data can be supplemented by information reflecting the actual;
- and unique needs of communities within a particular planning area when services for that area are being planned;
- a strategy according to which health managers will be trained to rely on and use comprehensive, though relevant health and health-related information for purposes of planning and managing community-based PHC services;
- a strategy to collect all available health and health-related information about the Free State on a regular basis and to capture it in a database that can be accessed by various end-users of such information, as well as the publication and distribution of periodic reports from this database about health matters in the Free State and the health status of its population;
- a strategy for opening up avenues of entry for health workers into the communities they provide services for in order to mobilise and promote community involvement in the health information system, as well as in general health matters;
- a strategy according to which relevant information about traditional healing and healers can be integrated into the health information system;
- a strategy for the gradual computerisation of the entire health information system, as well as a strategy for the training of personnel to operate such a system;

During 1995, all these strategies will be implemented in selected pilot areas. Most task groups are consulting health managers in these areas to make the necessary arrangements and preparations for pilot studies. Towards the end of the year, tasks groups will revise and adapt their original strategies according to the outcome of pilot studies. In the subsequent two years, these strategies will be implemented throughout the province.

Towards the end of 1994, it became apparent that the scope of the project required project information to be distributed regularly and in an organised manner to communities and to personnel within the services. A task group to take care of public relations, consisting mainly of public relations officers within the services, as well as representatives from the civic organisations, was established for this purpose.

So far, the project has progressed well. The main problems that were experienced relate to adding project-related activities and responsibilities to the existing workload of health personnel, to retain participants interest and enthusiasm in the project, as well as to proceed with plans regardless of the uncertainty and disruption brought about by the change of Government and the process of restructuring the health services. Although the involvement of all major stakeholders and role-players in PHC was secured at the onset of the project, these developments necessitated, and are still necessitating, adaptations to the management and structure of the project. New and emerging role-players and stakeholders are continually being identified and their participation in relevant task groups or in the management of the project obtained. Strategic planning for 1995 will have to take account of, amongst others, the appointment of new personnel to key management positions in new directorates within the provincial health services, the devolution of health care responsibilities to provincial and district health authorities and distribution of responsibilities between the two authorities, the health care budget and the setting of financial priorities according to available resources, as well as the expected disrupting effect that the forthcoming municipal elections will have on the health services.

We believe that health services in the Free State will soon be reaping the fruits of the PHC/INFO project. Already, a change in the attitude and approach towards information collection and usage can be observed among those health workers who are involved and/or informed about the project.

Word about the project also spread rapidly - largely by means of a monthly newsletter and a well-attended Open Day that took place on 23 November 1994, but also by word of mouth - and it appears that health workers and communities throughout the province are eagerly awaiting their turn to become part of it.

4.4 National Health Information System of South Africa (NHIS/SA)

Reported by Lulama Mbobolo (Research Intern)

<table>
<thead>
<tr>
<th>Grantee:</th>
<th>Department of Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision:</td>
<td>Dr O Shisana</td>
</tr>
<tr>
<td>Duration of</td>
<td>August 1994 –</td>
</tr>
<tr>
<td>Internship:</td>
<td>September 1995</td>
</tr>
</tbody>
</table>
Introduction

Lulama was appointed as a research intern in the Department of Health August 1995 and is attached to the National Health Information System Committee. The purpose of the internship is to help develop her human resource skills such that she will be able to manage district health information systems units by participating in the planning and development and implementation of the NHIS/SA. Before joining the Department of Health she was involved in a project by Dr O Shisana which looked at assessing the capacity of South Africa to develop a national health information system, another of the Health Systems Trust funded projects.

Areas of involvement in the Department of Health

1. NHIS/SA

Lulama is a member of the NHIS/SA committee. The NHIS/SA Committee has been established by the Minister of Health to develop a national strategy for a comprehensive health information system which starts at district, to provincial and national levels. This committee is chaired by Dr O Shisana, Special Advisor to Minister of Health and is funded by the HST. Lulama is playing a crucial role in the committee as a coordinator of the NHIS/SA Committee. The objectives of the NHIS/SA are;

- to ensure availability of information for the management of health services which include efficiency, cost, volume and coverage;
- measure health stays of South African population
- monitor the RDP priorities and to measure the progress of implementation of RDP priorities.

She is responsible for coordinating the committee. Her main activities as a coordinator of the NHIS/SA include preparing the agenda for the committee meetings, liaising with committee members to set up dates for meetings, reviewing correspondence, reports and proposals and attending meetings and workshops relating to NHIS/SA, within and outside the department, consulting with Dr Mandil WHO Director-Adviser on Informatics who is the Principal Consultant of the NHIS/SA, and Dr Orinda, UNICEF Consultant and keeping them informed about the activities and progress of the committee.

She has organised the National Workshop of the NHIS/SA committee, 27 & 28 November 1994. Her main activities included networking with people who are involved in health information system in South Africa and those who have expert knowledge in health information system. She was instrumental in making this workshop a success. Her involvement in the committee has thus contributed in acquiring a wide range of skills.

The NHIS/SA Committee has conceptualised the overall framework of the national health information system. The NHIS/SA Committee has formed eight subcommittees which are to implement the Workplan of the NHIS/SA Committee. Lulama is actively involved in coordinating and convening these sub-committees and is a member of most of the sub-committees. Her involvement in these sub-committees will offer her technical skills in systems development.

Health Objectives Indicators

She has shown her ability to work independently and her creativity by tabling a set of health priorities and problems identified by the RDP health priorities, the health indicators by WHO indicators for Health for All by year 2000 and guidelines on information needed and the programme areas and major obstacles experienced by member countries, UNICEF child health summit indicators and indicators developed by the provincial health restructuring committee. This will help the provinces and the health indicators and objectives working group to work out clear health objectives and indicators.

Lulama is actively involved in the NHIS/SA Health Objectives Indicators sub-committee which is to come up with a minimum set of health indicators drawn from the WHO, UNICEF, provincial and indicators drawn up by the technical committees set up by the Minister of Health.

Draft Workplan

Lulama is also involved in drafting the Workplan of the NHIS/SA which is to serve as a working document for the NHIS/SA Committee which will be implemented throughout the country. Her involvement in this sub-committee has given her practical experience in planning and developing a system.

Situation Analysis of Health Information Systems

One of her activities within the NHIS/SA Committee was to do a situational analysis of the present health information systems in South Africa. Existing information systems were identified as:

- fragmented and incompatible;
- provide insufficient information;
- not well co-ordinated and need to be restructured and re-standardised to collate information;
- mainly for personnel and budgeting use;
- having manual driven facilities with minimal computerisation and;
- there is inadequate analysis and interpretation of data at local levels.
Bringing all these systems together will be a priority of the project and this will not take less than four years.

Committee Reports

She has written the committee report that was submitted to the Minister of Health and is available from the Department of Health. She is also responsible for keeping documentation of all the committees and sub-committee activities. The NHIS/SA Committee will continue working until a system has been piloted and implemented.

2. RDP Information Project (RDP IP)

Apart from being a member of the NHIS/SA Committee, Lulama was nominated by the Department to be part of the team which is to implement the RDP Information Project in the Department of Health. The purpose of the project is to establish a common information reference for the RDP and governance at large. The main objectives of the project are to:

a) Standardise definitions for information elements throughout government,
b) Identify information elements on which statistics should be captured by the Central Statistical Services and other similar organisations,
c) Identify information systems where adherence to standard definitions and procedures are key to the minimisation of costs and maximisation of output.

RDP Information systems course

As part of the RDP IP she attended a course on information systems. The course consisted of four major areas namely Job Analysis and Design, Information Systems Planning, Business Process Re-engineering principles and Data Analysis. The HST funded Lulama as part of her skills development. This course equipped her with skills in Information Strategic Planning, Data Modelling and Joint Applications Development Facilitation Skills which include team building and designing user workshops.

3. Health Systems Trust Project For Information Dissemination

Lulama has been requested to write up an article in collaboration with Dr D Bradshaw of the MRC on Health Informatics Support for a chapter of the Annual Health Review. She has submitted the framework for the chapter to the HST and is working on the chapter.

4. Evaluation of the Internship/Project

The committee has managed to compile a workplan which will serve as a working document for the development of NHIS/SA. The eight sub-committees are working and are expected to complete their task by the end of the year. Lulama has benefited from the programme in that it gave her an opportunity to be practically involved in the development of the health information system from its conception to planning and implementation phase. It further gave her an opportunity to get technical training on information systems development which was covered by the RDP Information Project Course on Information Systems. She is thus equipped to lead the process of change within the Department of Health in terms of putting the department within the broader context of the RDP Information System which will monitor and evaluate the progress of the RDP.

Working with Dr S Mandil has also contributed to her development and she has a good understanding of procedures to be followed in setting up and developing a health information system.

It has been a very challenging exercise for her to work in the Department which is in the process of transformation and to fit in within the existing structural bureaucracy and with a lack of support. This has contributed to her life skills development in that she has developed skills to work under pressure and ability to work independently and that she has equipped her with project management skills.

5. IMPROVING EFFICIENCY AND QUALITY OF SERVICE

5.1 Evaluation of self supervised treatment among TB patients in the Western Cape

| Grantee: | Medical Research Council |
| Programme Director: | Mr Caeser Vundule |
| Grant amount: | R35,600.00 |
| Grant period: | 1 year |

Researchers:
C. Vundule, M. Tatley, M. Zwarenstein, J. Dick, H. Schoeman

Description of the project

Tuberculosis (TB) is a major public health problem in South Africa and particularly so in the Western Cape. One of the main problems confronting efforts to control TB is non-adherence (or non-compliance) to treatment by TB patients. Different methods of supervising TB patients have been introduced with the hope that they will improve adherence to treatment. A health authority in the Western Cape requested an evaluation of 3 of the main methods that are currently being used for supervising adult TB patients. The aim of the project is to determine adherence and treatment outcome of newly notified adult TB patients who are under three different types of supervision. The supervision methods being evaluated are:

- clinic supervision - where the patient receives daily treatment at the clinic under the supervision of clinic staff.
• community based supervision - where the patient gets drugs from someone living in the community who is responsible for supervising the patient’s medication

• self supervision - where the patient collects his or her drugs from the clinic once a week, and is responsible for self administration or supervision.

The study is conducted at 5 clinics in Khayelitsha and Elsies River, in the Western Cape.

Table 2: Characteristics of study patients

<table>
<thead>
<tr>
<th></th>
<th>CLINIC SUPERVISION</th>
<th>COMMUNITY SUPERVISION</th>
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</tr>
</thead>
<tbody>
<tr>
<td>NUMBER</td>
<td>52</td>
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<td>59</td>
</tr>
<tr>
<td>CLINIC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athlone</td>
<td>15</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Elsies River</td>
<td>6</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Leonardside</td>
<td>1</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Mortoosfontein</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Site B</td>
<td>27</td>
<td>0</td>
<td>32</td>
</tr>
<tr>
<td>MEAN AGE (years)</td>
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</tr>
<tr>
<td>SEX</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Male</td>
<td>56%</td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>Female</td>
<td>44%</td>
<td>45%</td>
<td>45%</td>
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<tr>
<td>MARITAL STATUS</td>
<td></td>
<td></td>
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<tr>
<td>Single</td>
<td>63%</td>
<td>52%</td>
<td>51%</td>
</tr>
<tr>
<td>Married</td>
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<td>27%</td>
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<tr>
<td>Separated</td>
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<tr>
<td>Divorced/widowed</td>
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<tr>
<td>HOUSING</td>
<td></td>
<td></td>
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<tr>
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<tr>
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<tr>
<td>Other</td>
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</tr>
<tr>
<td>% ALCOHOL DRINKERS</td>
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<td>13%</td>
<td>2%</td>
</tr>
<tr>
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<td>9%</td>
</tr>
<tr>
<td>Standard 1 - 3</td>
<td>12%</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td>Standard 4 - 6</td>
<td>41%</td>
<td>56%</td>
<td>53%</td>
</tr>
<tr>
<td>Standard 7 - 10</td>
<td>20%</td>
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<td>16%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Project team

This study is a collaborative effort between the Western Cape Regional Services Council (WCRSC), the Community Health Association of Southern Africa (CHASA), and the Medical Research Council (MRC).

The research process and interim results

Data collection began in May 1994. Consecutive newly notified adult TB patients who satisfy inclusion criteria are randomly allocated to one of the 3 supervision methods. All study patients are monitored until they complete their treatment.

Characteristics of study patients

Until the end of January 1995, 149 patients had been recruited into the study. Table 2 shows the demographic and other characteristics of study patients. Patients allocated to the 3 supervision methods are generally similar, a reflection that the randomisation process is working well. The community supervision method is not yet available in Site B, Khayelitsha and this is reflected in some variables.

Adherence results from one clinic

Adherence data of 39 patients at one clinic was analysed to assess how adherence data is being captured. The research team is satisfied with data collection.

What needs to be done?

Continue with data collection.

What will the study show?

This study will show which supervision option yields the best adherence and treatment outcome among adult TB patients. The study will also show demographic and other characteristics of patients who are adherent and non-adherent under each of the 3 supervision options. Detailed information is collected on the characteristics of all patients that are enrolled into the study. This will allow a detailed description of all the patients included into the study and those who are lost to follow up. A questionnaire is administered during the fifth month of treatment to determine each patient’s satisfaction with their supervision method. This will give the patient’s perspective of the different supervision methods.

Results from this study will be disseminated to relevant health authorities and nursing staff in order to improve the management and adherence of TB patients.

Opportunities for capacity building

Clinic staff from study clinics have been involved in the design of study questionnaires, thus transferring some research skills to them.
5.2 Improving the quality of antenatal care: a community, health service and research partnership

| Grantee: | Medical Research Council |
| Programme Director: Dr Margaret Westaway |
| Grant amount: | R19 000.00 |
| Grant period: | 1 year |

Researchers:
Margaret S. Westaway, PhD, CertEd
Hlupheka P. Chahalala, BSc (Hons) Microbiology
Esther Viljoen, BSc (Hons) Mathematical Statistics

Description of the project

In conjunction with the health workers and the community of Ivory Park (Gauteng), six complementary intervention strategies were designed to improve the quality of antenatal care in this informal settlement. These strategies consisted of: the development of antenatal outreach and health education programmes; marketing the health services; the provision of transport to the clinics in Ivory Park and the maternal delivery unit at Tembisa Hospital; monitoring the quality of the Ivory Park antenatal service through clinic attendance data and record reviews; interviews with pregnant women; and assessing the effectiveness of these strategies on quality of antenatal care.

Unfortunately, closure of the clinics, dismissal of staff, intimidation by striking workers, general unrest in the area, and an escalation of car hijackings severely curtailed project activities during 1994. We are able to report on the monitoring component and highlight points that emerged during the interviews with pregnant women.

Significant findings and recommendations

Antenatal Attendance Data

Antenatal attendance data for 1993 and 1994 at the four clinics are shown in Figures 7 and 8. Hikhensile clinic had the highest attendance rates in 1993 and 1994. A virtual doubling of attendance in 1994 meant that this clinic had an extremely high workload. Hikhensile and Bophelong are purpose-built clinics in Ivory Park. The vast gap between these two clinics on attendance data is puzzling. We have recommended exploration of these findings to the health workers.

Record Reviews

From October 1994 to February 1995, three MRC researchers and a temporary field researcher continuously reviewed the clinic records of 185 pregnant women due to deliver their babies in 1995 at three clinics (Rabie Ridge, Bophelong and Hikhensile).

Background details on the antenatal clinic attenders are shown in Table 3. Although the predominant age group was 20-29 years, a substantial proportion were teenage pregnancies (19%). Most of the sample were single and unemployed. The number of previous pregnancies showed that the birthrate was approximately three children per woman. Only 25 women attended the clinic during the first trimester (≤ 90 days); the majority of pregnant women attended towards the end of the second trimester.

Table 3: Background Details from the Clinic Files

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<thead>
<tr>
<th>Background Details</th>
<th>n</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Age group: 15 - 19 years</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>20 - 29 years</td>
<td>102</td>
<td>58</td>
</tr>
<tr>
<td>30+ years</td>
<td>41</td>
<td>23</td>
</tr>
<tr>
<td>Marital status: Single</td>
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<td>81</td>
</tr>
<tr>
<td>Married</td>
<td>34</td>
<td>19</td>
</tr>
<tr>
<td>Employment status: Employed</td>
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<td>8</td>
</tr>
<tr>
<td>Unemployed</td>
<td>162</td>
<td>92</td>
</tr>
<tr>
<td>Previous pregnancies: First</td>
<td>57</td>
<td>32</td>
</tr>
<tr>
<td>Second</td>
<td>56</td>
<td>33</td>
</tr>
<tr>
<td>Third</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>Fourth</td>
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</tr>
<tr>
<td>Fifth+</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>Attendance trimester: First</td>
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<td>15</td>
</tr>
<tr>
<td>Second</td>
<td>97</td>
<td>58</td>
</tr>
<tr>
<td>Third</td>
<td>44</td>
<td>27</td>
</tr>
</tbody>
</table>

Interview Highlights

Of the 88 interviewees, 11 were teenagers, 35 were aged between 20 and 29 years and 12 were aged between 30 and 37 years; 49 were unemployed. Twenty-eight women had not used contraception prior to the pregnancy, 21 women had used an injectable method, 8 women the pill and 1 woman had been sterilized at Tembisa Hospital.

Reasons for discontinuing contraception ranged from forgetting, "Just on a hunch, didn’t think I will get pregnant so quickly", wanting a baby, the influence of boyfriends/husbands to side effects (nose bleeds, no periods, dizzy, always bleeding).

For 31 women this was an unplanned pregnancy; 13 of these had not used contraception prior to the pregnancy. Most of these women were not very happy about the pregnancy, especially the woman who had been sterilized and the three women who had not discontinued contraception. They said that they accepted it as there was nothing they could do.
Twenty women were willing to form support groups. They would use these support groups to discuss family planning, how children develop, economic needs and transport for emergencies. Some women said that such groups could be used to share skills such as literacy, growing vegetables, knitting, baking and developing income generating projects.

The major issues that emerged from the record reviews and interviews were the high level of unemployment, transport difficulties and the need for support groups. We recommend that these support groups are used to develop skills to generate income, resolve transport difficulties and to provide a starting point for antenatal/postnatal outreach services.

**Opportunities for capacity building**

A resident of Ivory Park has been appointed as an assistant researcher on the project for 1995. She is currently receiving training on interviewing skills plus computer skills. We have placed a PC at one of the clinics for her use and clinic personnel use. Temporary field workers from the community will participate in group discussions and be involved in the development of health education programmes.

**Involvement of the relevant health authorities**

Midrand Community Services Department, who render the health services in Ivory Park, have been continuously involved in the project. Joint training sessions by MRC of new Midrand personnel will take place in April/May 1995.
5.3 Studies of efficiency in Public Sector Hospitals

Grantee: Health Economics Unit, University of Cape Town
Programme Director: Ms D McIntyre
Grant amount: R124 500.00
Grant period: 1 year

Researcher: Dale McMurchy

The role of the hospital within the Primary Health Care approach needs close attention. Effective implementation of PHC, in fact, would put greater strain on hospital services, albeit with a different case mix. Presently, South Africa has a disproportionate number of resources designated to the hospital sector at the expense of preventive and primary curative services.

In this context, it is important that hospital resources are efficiently utilised. Hospital efficiency can be assessed by analysing output (patient days, operations, etc.) given a hospital’s fixed budget or by establishing whether, by keeping all inputs constant, costs have been minimized.

This study aims to develop a comparative model for assessing hospital efficiency at the aggregate level based on readily available data. The objectives of the study are to determine:
- a ranking of hospitals based on length of stay and occupancy indicators.
- revisit and establish unit costs for a patient day equivalent
- conduct correlation analyses on selected output indicators
- develop a hospital total cost function
- use econometric modelling to establish long and short run average cost, elasticities, marginal costs, and returns to scale of selected input and output variables
- utilise the frontier cost function to identify the most efficient hospitals and establish determinants of efficiency

To date, the researcher has conducted an extensive literature review; consulted with relevant health service providers and administrators; collected most of the necessary data; developed models to assess hospital efficiency; and achieved preliminary results based on the five approaches of efficiency assessment.

5.4 An intervention project to improve the management and control of STDs within Health Services situated at the Site B Health Complex, Khayelitsha

Grantee: Dept of Community Health, University of Cape Town
Programme Director: D Cooper
Grant amount: R115 770.00
Grant period: 1 year

Researchers: D Cooper & Mamorena Mofokeng

This study was initiated as the prevalence of STDs in South Africa, as elsewhere in sub-Saharan Africa, constitutes a major public health problem. Management and control of STDs are of additional immense concern because of the rapid spread of the Human Immunodeficiency Virus (HIV) in South Africa, itself an STD, resulting in the fatal Acquired Immunodeficiency Syndrome (AIDS). The transmission of HIV is greatly enhanced when other STDs are present. Transmission of HIV in Africa is primarily through heterosexual sex practices.

The aim of the study was to evaluate the management and control of sexually transmitted diseases (STDs) at the Site B health complex in Khayelitsha, Cape Town.

The evaluation is intended to contribute to the formulation of a joint programme with health service management and providers at this health complex for improved management and control of STDs. If the programme proves to be effective then it may serve as a model for similar health services.

The Site B health complex comprises three different health services: The Day Hospital (DH), managed by the Cape Provincial Administration (CPA), which operates a 24 hour daily service. Outpatient and trauma care are provided between 8 am to 5 pm. Only emergency cases are attended to after hours. The DH employs 6 full-time doctors each of whom sees on average 60 patients daily. The Regional Services Council (RSC) conducts daily family planning, tuberculosis and mother and child health care clinics. Once a week, on Fridays an STD clinic operates for 2 to 3 hours. A Midwife Obstetrics Unit (MOU), operates from the same health complex and is managed from Groote Schuur Hospital by the Gynaecology and Obstetrics Department.

The first stage of the study was conducted in October 1993. Key informants amongst health service providers at the Site B health complex in Khayelitsha were interviewed with the purpose of obtaining general information on how the services operate, their views on problems in management and control of STD’s and suggestions as to how the service could be improved. Providers interviewed acknowledged that STD’s were a serious public health problem needing proper
management. Contact tracing was singled out as a major problem in this community. Another problem was that patients attending DH services for STDs paid for the consultation.

The MOU records about 50 VDRL positive results every month from antenatal clinics. Rates of syphilis are even higher in unbooked mothers. Attendance at the RSC dedicated STD clinic is very poor. The main reason for poor attendance was that the clinic only operates once a week for 2 hours. A record review conducted of patients who had a VDRL test (test for syphilis) done at the DH in July and August 1993, showed that the DH sees the bulk of STD patients attending the health complex.

The DH therefore became the focus of a more detailed study to evaluate the diagnostic spectrum of STDs and their management. Diagnosing staff members (6 doctors and 2 primary health care nurse practitioners) were asked to record over a 2 week period, diagnostic and demographic details of all patients they diagnosed on clinical grounds as having a STD. Staff were also asked to record accompanying blood tests requested for patients. During a period of 15 days, 263 STD patients were seen during working hours. Patients presenting after hours and over weekends were not included due to logistical reasons.

Following this, a systematic sample of 133 patient records out of the 263 recorded were reviewed for prescription details and VDRL results. The correct drug treatment protocol for individual STD syndromes was taken to be that recommended by the Western Cape Infectious Diseases Coordinating Committee. The results of the patient records reviewed showed that 6% of the total number of patients seen daily at the hospital presented with a STD. The majority are young females, with men comprising a higher proportion of the older age group. Only 62% of patients were tested for syphilis and men were given preference over women in this regard. A high proportion of patients received incorrect drug prescriptions in accordance with the accepted treatment protocol. In many instances drug combinations were excessive, with unnecessary (and often very expensive drugs) being included.

To supplement the study with a client perspective, individual in-depth interviews were conducted with a sample of Xhosa-speaking clients resident in Khayelitsha, but attending the Spencer Road STD clinic in Salt River, Cape Town. The Spencer Road clinic sees approximately 60% of all STD clients in Cape Town, a large proportion of whom reside in Khayelitsha. Fifty clients were interviewed of whom 33 were males and 17 females. Their ages ranged from 16 to 52 years old. The purpose of these interviews was to ascertain why they preferred to use the Spencer Road facility and gain insights into problems they may experience in attending a local health service for STD treatment. Information was also gathered on their knowledge of STDs and AIDS transmission and protection. The interviews revealed deep dissatisfaction with local health services. Clients cited long waiting hours, shortage of doctors, impolite staff attitudes and poor treatment as some of their main problems. In addition, extremely poor knowledge of STDs was revealed despite the fact that all interviews were post-consultation, exit interviews. Most of the clients stated that they were not at ease discussing STDs with their partners. This contributes to the problem of contact tracing.

In addition, interviews were conducted with 11 clients, of whom 6 were male and 5 female presenting with STDs at the DH in Khayelitsha. They did not express dissatisfaction with the quality of service they had received but did complain of long waiting hours.

Report back meetings have been held with management and service providers and the findings of the study presented. In December 1994, flowing from the study, a training workshop was arranged on syndromic management of STDs for 50 DH doctors and general practitioners from Khayelitsha and several other Peninsula Day Hospitals. The syndromic approach in the management of STDs is supported by the World Health Organisation, especially in areas where laboratory backup is a problem. The workshop was conducted by Professor Ron Ballard and Dr David Coetzee of the National Reference Centre for STDs.

Thus far some general recommendations emanating from the study include:

1. Integration of all reproductive health service provision.
2. Training of service providers and private practitioners in the syndromic management of STDs and counselling skills. Pharmacists and other services treating STDs should be included in the fight against STDs.
3. Free medical care for STDs.
4. The introduction of a uniform method of contact tracing for STD patients nationally.
5. The national promotion of the use of condoms as a barrier method against STD's also as another method of contraception.
6. The National AIDS Programme should support feasibility studies on the female condom, nationally.
7. Employers should introduce STD management in staff clinics.
8. Appropriate health information to be disseminated on STDs.
9. The introduction of sexuality education in schools as early as possible.
5.5 An investigation into the cost effectiveness and efficacy of enhanced service and community involvement in the diagnosis and treatment of malaria at the clinic level

| Grantee: | Medical Research Council |
| Programme Director: | Dr Brian Sharp |
| Grant amount: | R159 537.30 |
| Grant period: | 18 months |

Aims of the project

To assess the: i) cost of active surveillance of malaria patients versus passive case detection; ii) cost effectiveness of clinic diagnosis and treatment of malaria versus diagnosis and treatment by referral hospitals; iii) the impact of community health workers involvement on passive case detection; iv) catchment area of the clinic prior to and after community involvement; v) role of traditional healers in malaria case treatment; vi) attitude of people towards treatment of malaria by the clinic, the hospital and traditional healers; vii) potential of traditional healers forming part of the surveillance system; viii) whether community health workers and increased passive detection can replace active case detection.

Progress to date

An economic analysis is being undertaken to assess the cost of active and passive case detection. This is being undertaken as a prospective analysis and data collection is structured to be collected in three areas, a high, medium and low risk malaria area during 1995. Data collection sheets for the collection of active surveillance data have been drawn up following a pilot study and hospital visits have been made to structure passive malaria case data collection. This portion of the study was conducted in collaboration with the Department of Economics, University of Natal. The study as a whole is being undertaken by the MRC in collaboration with the Department of Health.

In excess of 68% of malaria cases notified from the former KwaZulu area of KwaZulu-Natal Province over the period 1980-1991 were detected by active surveillance (Ngxongo 1993), that is they were not detected by hospitals or clinics.

In excess of 90% of the malaria cases reported from KwaZulu areas originate in the three northern districts of KwaZulu-Natal Province. In this area there are > 10 clinics and four referral hospitals and yet during the period 1980-1991 only 31.9% of cases were detected by passive surveillance. Of these passive cases 87% were treated at hospitals, only 12% detected and treated at clinics and 1% by private practitioners (Ngxongo 1993).

A decentralised microscopist was stationed at the Ndumuzi clinic in Ingwavuma district to enhance the malaria diagnosis and treatment service. During 1993 it was found that the clinic accounted for 57% of cases detected, a dramatic increase in clinic use by malaria patients.

The 1994 data are currently being databased prior to full analysis over a two year period. A second clinic in a medium risk malaria area has now been furnished with a malaria microscopist. The community attitudes towards malaria diagnosis by clinics, and the role of community health workers in getting more people to utilize the clinic are being evaluated. This study is being undertaken by Mr S Njogodo and will form part of a PhD.

The role of traditional healers in malaria case treatment is being evaluated as a collaborative study between the MRC, Department of Health and the University of Zululand. This study is to form part of an MSc for Ms H Dipa. Ms Dipa is currently undertaking computer training and drawing up the study protocol and questionnaires.

5.6 Improving the effectiveness of school vision screening programmes

| Grantee: | Dept of Geography |
| Programme Director: | Mrs M Mehta |
| Grant amount: | R64 750.00 |
| Grant period: | 1 year |

Greetings to all readers!

My name is Mthandeni Mntungwa an HST trainee researcher based at the University of Durban-Westville. The supervisors of the project that I am doing are Dr Mark Colvin from the Medical Research Council in Durban and Mr Raza Shaik from the Optometry Department at the University of Durban-Westville. The research that I am currently undertaking is titled "An evaluation of a Modified School Vision Screening Programme" and it arose out of a need to improve the effectiveness school vision screening programmes.

An initial study found that the school vision screening programme in current use by the various school health services is ineffective as a result of which a number of visual disorders are missed. It is the intention of this study to develop a vision screening programme that will address the shortcomings of the current screening programme and thereafter train School Health Nurses in its use and administration.

Both the screening programme developed for this study and the one in current use will be compared to determine their validity. A vision screening programme of proven reliability [gold standard] will be used as an evaluative standard in this regard. Furthermore, the study considers the cost and human resource implications of the incorporation of this screening programme - if it proves successful - into the National Health System.

In developing this vision screening programme,
RESEARCH PROGRAMMES

guidelines of international organizations and eye care institutions like the World Health Organization (WHO) guidelines on the setting of screening programmes, and the recommendations of the American Optometric Association (AOA) and the American Academy of Ophthalmology (AAO) on vision screening programmes have been consulted. To ensure relevance to the South African situation, the opinions of school health service nurse managers, public health researchers and health economic experts have been solicited and it finds expression at various stages of the study.

A training programme of School Health Nurses in this screening programme has already been completed and the next phase of the study which is data collection is about to begin. A number of variables will be measured at this stage e.g.

a. Duration required to administer each test. A good test must take a relatively short time and be easy to administer to large groups of children.

b. Cost of the equipment. The equipment must be relatively inexpensive if the screening programme is to have potential for mass adoption.

c. Validity of each screening test. Each test must be able to detect those individuals with the disorder being measured from those who do not. A test with a poor validity results in over-referrals (referring individuals who should not have been referred) and under-referrals (non-referral of individuals who should have been referred).

Only when the data is obtained and analyzed will it be possible to answer these questions. Other factors like the cost of this screening programme in terms of equipment, category of personnel required to administer the screening programme, person required to conduct the training programme and the salary benefits of that person, cost attached to the training duration and other cost factors associated with the screening programme are considered under the costing section of the programme.

I hope to complete this study before the end of the year after which the full findings and recommendations will be made to all major stakeholders and results published for dissemination for academic and public debate.

6. LEGISLATION

6.1 Review and recommendations for reform of South African Health Legislation

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<td>Dr Derek Yach</td>
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The Health Legislation Research Project has been operative in the Medical Research Council since February 1994, under the directorship of Dr Derek Yach. The project was initiated by a concern that South Africa has no qualified health lawyers, and that the lack of expertise in this field results in many legislative opportunities to promote health being lost.

Project researcher, Mr Stephen Harrison, was assigned the task of applying his legal background to address this weakness of the South African health and legal systems by conducting health legislative research. Project objectives included:

1. to develop a basic jurisprudence of health law for South Africa, taking cognisance of international developments;

2. to develop recommendations for reform of health legislation to underpin health system transformation in South Africa, and to provide research support for existing legislative initiatives; and

3. to popularise the discipline of health law, hitherto neglected in South Africa, and to create opportunities for capacity development in the discipline.

The project’s first working paper presented a theoretical basis to health legislation, focusing on issues such as: functions of health legislation; the process of legislating for health reform; and legislative mechanisms to strengthen the impact of the health ministry. Subsequent research has been directed at providing specific support to emerging legislative and policy initiatives.

A review of the general health laws of some forty-five jurisdictions provided the basis for the formulation of frameworks for comprehensive health legislation at provincial and national levels. Refinement of the frameworks was made possible by widespread consultation and in particular by the project researcher’s participation in the National Health Legislation Review Committee of the Department of Health, and in the legislative task force of KwaZulu-Natal’s Strategic Management Team for Health. Continued research support is being provided to these committees. Participation in the latter committee has been on the understanding that developments in the KwaZulu-Natal process may be shared with other provinces by means of facilitation of the project.
Support was given to other provinces by means of a Provincial Health Legislation Seminar, hosted by the project on 24 November 1994. The health legislation taskforces of seven of the nine provinces were represented, as were the National Health Legislation Review Committee and the National Assembly’s Standing Committee for Health. Special inputs were provided by Prof Louise Tager, of the Law Review Project, and by Dr Eric Goon, of the World Health Organisation.

Research support has also been provided to the Standing Committee for Health in the National Assembly, and to the Maternal, Women and Child Health Committee of the Department of Health. A comprehensive review of international legislation affecting maternal, women’s and child health was prepared for the latter committee. Specific legislative research is also being conducted on an ad hoc basis to address health legislative issues as they arise, for example the submission of legal comment on the recently promulgated tobacco control regulations, and the submission of recommendations to the Constitutional Assembly for changes to the new Constitution to better promote health.

At the Provincial Health Legislation Seminar, development of capacity for research on, and training in, health law was identified as an absolute priority. The importance of this need was reaffirmed in a subsequent meeting of Community Health Departments, convened by the Department of Health on 20 January 1995, at which the project was given opportunity to provide input. A possible model curriculum for the teaching of health law to undergraduate medical students was presented by the project at this meeting. Development of research and academic capacity in health law is also being furthered by Stephen Harrison’s continued education in health and law. He intends to complete his health legislation thesis for a Masters in Law by mid-1995, and then to undertake a Masters in Public Health. On completion of this, it is intended that he will be instrumental in initiating a co-ordinated programme of research and academic training in health law in South Africa.

6.2 The National Health Legislation Review Committee on Health

Report submitted by Sigidikazi Potse (Research Intern)

This is one of the Technical Committees in the Department of Health. The objectives of this Committee are:

1. to rationalise and consolidate all national health legislation into a few laws;
2. to amend other laws to be in line with new health policies;
3. to repeal those laws that are not necessary;
4. to ensure that all legislation is consistent with the new Constitution;

5. to suggest new issues needing legislation; and
6. to draft a new Public Health Act for South Africa.

The work of the Committee entails considerable research, and the Department of Health thus created a 12-month post for a research intern for the Committee, supported by a grant from Health Systems Trust. Additional motivations for creating the post were to develop much needed capacity for health law research in South Africa, and to create opportunities for professionals from marginalised communities to participate in the activities of the Department of Health.

As research intern for the Committee, my immediate tasks involve the further development of the Committee’s draft framework for a new Health Act. This involves, inter alia: identifying existing legislation which impacts on areas of health included within the framework; identifying relevant policy, as articulated by the Reconstruction and Development Programme, the ANC National Health Plan, and the technical committees of the Department of Health; and legislative drafting. This is likely to be followed by participation in consultative workshops.

My work has already involved some critical areas of health policy development and implementation. One such area has been investigating ways in which legislation can ensure community involvement in the planning, management, delivery, monitoring and evaluation of health services. Another area of interest has been how to give expression legislation to a right of all people to optimal health.

Involvement in the Health Legislation Review Committee has given me an opportunity actively participate in reviewing and drafting health legislation, and has broadened my understanding of current health policies. It has also provided excellent opportunity to develop my legal skills, especially as I am also working in the Legal Section of the Department of Health with one of the Legal Administrative Officers drafting regulations and legislation.
This internship programme is equipping me to draft health legislation and regulations. However, my work has been hampered by the fact that an exclusively legal background did not provide me with an adequate understanding of the health care system. It is clearly apparent that considerably greater attention needs to be given to the establishment of health law as a discipline of its own in academic and research institutions in South Africa.

7. DRUG POLICY

7.1 Analysis of prescription prescribing patterns and costs in the public and private sectors within the Durban Metropolitan Area.

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Report by Fatima Suleiman

With concern mounting about the escalating costs of prescription medicines, I have chosen to undertake a basic study to analyse prescribing patterns using a cross section of the patient population in the Durban Metropolitan Area.

Why medicines?

Much has been written about the importance of medicines in the formulation of health policy. It has also been published that medicines form the single most expensive consumable item in the public sector, while in the private sector, it forms the most expensive health item overall. In a time of constrained health care resources, the economic and clinical aspects of inappropriate prescribing becomes even more acute.

About the research?

The main objective of the research is to collate and analyse prescribing data with respect to common pharmacological categories prescribed; to determine the extent of generic prescribing; and to determine the average number of items per prescription.

For this purpose, four categories of patients were chosen:

(1) Private sector cash patients, i.e. patients not on medical-aid that have their prescriptions filled out at a pharmacy.

(2) Private sector medical-aid patients, i.e. those patients belonging to a medical-aid scheme that has adopted the MMAP system.

(3) Private sector dispensing doctor patients, i.e. cash paying patients that are examined by a medical practitioner and have their prescriptions filled out at the surgery.

(4) Public sector non medical-aid patients, i.e. state aided patients who receive health services and medication for a small fee or gratis.

At this stage of the study data has just been collected, and data entry and analyses now follows.

My experiences thus far?

It has been difficult to obtain co-operation of all, or many health personnel in the private sector. I propose to change this attitude by presenting the results of this study to the different groups and emphasising the importance of information systems. The people who have agreed to become involved in the study have been wonderful, and extremely co-operative.

Skills development

The process of strengthening research, planning and management capacity in the Department of Pharmacy at the University of Durban-Westville has been encouraged by funding by the Health Systems Trust.

Pilot studies and rudimentary research in administrative and social aspects of health care, especially pharmaceutical care and the practice of pharmacy, has been the focus at undergraduate level for some time. Recently, emphasis on various aspects of health systems planning and development research have been prioritised. Two research interns have been assigned to undertake literature review, major data collection and analysis on projects outlined below.

In addition, support is provided to them to strengthen their research skills through various mechanisms:

(a) Workshop on Introduction to Epidemiology;

(b) Protocol Development Skills;

(c) Time management and Speech Presentation Skills;

and

(d) Working with Epi-Info.

Involvement of health authorities

The following health bodies have become involved in the research studies:

1. Kwa-Zulu Natal Provincial Administration;

2. Family Practitioners’ Association;

3. Doctors Guilds;

4. South African Association of Community Pharmacies - Natal Branch;
8. NUTRITION

8.1 Community based nutrition surveillance in Hlabisa, KwaZulu-Natal

CBNS team members:
Prof Rob Fincham
Ms Chris Gibson
Ms Ntombenhle Ndlela
Ms Justina Nkomokazi
Ms Fiona Ross
Ms Maria Zondi

The Hlabisa hospital ward is the site of a community based nutrition surveillance (CBNS) project currently funded by UNICEF in collaboration with Health Systems Trust (HST), the Department of Health (DOH) and the Regional Consultative Forum on Rural Development (RCF) where the aim is to develop a system whereby community plays an active role in improving the nutritional status of its own infants and children. Broadly, nutrition surveillance means to "watch over nutrition in order to make decisions which will lead to improvements in nutrition in populations" (WHO, 1976). In reality, nutrition surveillance must form part of an information system in which nutrition related data is collected, analysed and acted upon as part of a structured and ongoing process. A crucial component of nutrition surveillance is that the information collected must be used to make decisions and for action. Community based nutrition surveillance is the tool for managing this information.

The activity that generates the information in CBNS is growth monitoring and promotion (GMP) of individual children using health workers to facilitate the process with mothers, fathers and care-givers and the community as a whole. In this context GMP needs to be seen as an operational strategy for an entire range of Primary Health Care and community activities with GMP as the catalyst for action by the community. Growth monitoring should not be seen as a goal in itself but rather as a monitoring tool to pick up growth faltering and give feedback about children growing well. Where growth faltering occurs the problem is identified eg. lack of household income etc. This tool is thus important to identify "at risk" children before they fail to grow. It is important that growth monitoring is seen as a preventative rather than an curative strategy to "find the well-nourished and do everything to maintain this state."

At Hlabisa the children are weighed on a regular basis at a 'weighing station' within the community and their weights recorded on a Road to Health Card (RHC). The growth curve provides parents and care-givers with immediate information concerning the growth and development of their children. This is the key to picking up early growth faltering especially between birth and 18 months of age. Following this assessment, analysis of possible causes of growth faltering are discussed with the mother and relevant actions are taken to assure healthy growth. CHWs adopt a holistic approach in this assessment and encourage discussion about issues such as diarrhoea, food preparation and storage, immunisation, breast-feeding etc. GMP is a communication strategy which strengthens and empowers mothers and care-givers to "watch over" the nutritional well-being of their children.

Community health workers (CHW) form the link between the community and health services. They are selected by a community health committee (CHC) and specially trained for this role through local health structures. GMP is a recent addition to their activities and those involved with the project have been issued with TAC scales. (These are specially designed hanging scales which are light, portable and are devised for participation by the mother in the weighing and monitoring process.) Special training is provided to ensure that adequate skills both in weighing, recording and interpreting the RHC are developed. This has been achieved through workshops with community health hospital personnel who are responsible for the training and supervision of the CHWs. A referral system is in place between the CHWs and the hospital for any

Dr Zwell Mkhize MEC
at Hlabisa Community Meeting - CBNS
children failing to respond to actions taken at the community level.

At the provincial level CBNS has received the full backing of Dr Zweli Mkhize, MEC for Health. He visited a community weighing station in the Hlabisana hospital ward where he observed the process of GM/P. He then addressed a meeting of community members and hospital personnel and expressed his enthusiasm and support for the project. In March Dr Mkhize will lead a team to Tanzania to see first hand, areas in which CBNS has been established.

Future plans include gathering more details concerning traditional feeding habits of young children in order that more specific, relevant information to the Hlabisana area is disseminated by the CHWs for particular problems picked up by regular GM/P. In conjunction with the community, posters with a simple relevant message such as “a healthy baby gains weight every month” will be developed and displayed at prominent sites in the community.

The project is one of the main activities of the Nutrition Task Force of the Regional Consultative Forum on Rural Development (RCF) and is run by a core team consisting of a programme co-ordinator, programme managers, a resource person, field worker and programme intern. A Scientific Steering Committee of experts in the field of child development and nutrition has been set up to guide the project. UNICEF provides technical support for example, through the secondment of a consultant with experience in CBNS from the Tanzania Food and Nutrition Centre when necessary. CBNS is linked to the Health Systems Trust who, in partnership with UNICEF provide funds for the support, capacity building and training of a programme intern Ms Ntombenhile Ndlela.

The objectives of the internship are to learn how to plan, develop, organise and evaluate community based nutrition surveillance programmes. Training is provided through participation in workshops and documenting the process involved in establishing CBNS at Hlabisana and other selected areas. Attendance at related courses offered by the University of the Western Cape Summer School include Developing community based nutrition programmes and Introduction to epidemiology and protocol development.

In keeping with the DOH policy of setting in place of District Health Systems, structures for the flow of information and feedback have been developed. In the community, the HC who were set up to select the CHWs will take an active role in analysing information from the growth monitoring sessions and ensuring the necessary action is taken to address possible causes of growth faltering and growth failure. Linkages will be established between the HICs and a District Health Committee which will ultimately feed into the Reconstruction and Development Programme (RDP) and the DOH. Nutritional status then becomes the outcome indicator to measure overall development and the impact of the RDP within the community.

8.2 Assessing the functioning of the National Nutrition and Social Development Programme (NNSDP) in KwaZulu-Natal with a view to developing policy responses for its restructuring.

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<tr>
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Researchers: Dr C C Jinahhai, Ms N S Morar

**Brief History of the NNSDP**

In 1991 the South African government initiated and launched the National Nutrition and Social Development Programme (NNSDP). The primary aim and short term goal of NNSDP was to address the food needs of the poor communities by providing financial resources for feeding schemes, distribution of food and other commodities. During 1993, after a series of discussions and consultations between the Nutrition Task Force and the National Committee, it was agreed that the NNSDP will be revised. The NNSDP is currently aimed at targeting pre-school children (0-6 years old) within creches in rural areas and to encourage community development programmes.

**Rationale and Purpose for the Research study**

The purpose of the research project was to assess the organisational profile and activities of the recipients of NNSDP funding. The NNSDP budget for 1994/1995 is R400 million rand, thus it is important to know if the resources spent on this health intervention programme actually makes a positive contribution to addressing the nutritional needs of the poor people. Assessing the profile and activities of recipients is crucial in determining how the funds were being utilized and to what extent the objectives of the NNSDP have been achieved. This type of study is often referred to as process evaluation where the researcher finds out whether or not the various programme objectives essential to the success of the programme have occurred appropriately.

**Research Process**

This was a joint study between the Regional NNSDP, Department of Health and the Department of Community Health, University of Natal. This partnership is a major innovation since the government departments are demonstrating their commitment to accountability and transparency and the academics are using their skills and resources for applied research on national priorities.
The research study was initiated in June 1991 at which time the Regional Manager of NNSDP approved the project. In order to collect information to assess the overall profile and activities of the recipient organisations, the researcher had to work at the NNSDP offices. The data was collected using available data from a sample size of 120 files of the approved recipient organisations. The information was manually recorded on a data collection form.

Before designing the layout of the data collection form, the researcher inspected the layout of the source documents in the files, so that information could be transferred in the order in which they appear in the files. The form was then coded so that it could be captured onto a computer software package.

Findings

Of the 120 recipients, 87% were located in rural areas and the remainder (13%) were scattered between the urban and peri-urban areas. This is an indication of NNSDP focusing its resources at a grass-root level where there is a need for social relief and nutrition related services. Further, 96% of the target population were residents of the area of operation of the recipient organisation. This facilitated community involvement and participation in the programmes since 84% of the recipient organisations had members of the community to manage the projects, prepare food and food parcels and do voluntary work for the project. This involvement of the community and their accessibility to the projects is in keeping with NNSDP’s development principles of self-reliance, participation and empowerment at a local level.

With regard to targeting, majority (56%) of the recipient organisations targeted children between 0-6 years old, while 36% targeted families. The remaining 8% targeted school children, pregnant women and disabled people.

Targeting children who are at a high risk of developing malnutrition and those living in areas that were not accessible to support organisations were key criteria used for funding by NNSDP. Thus, the majority (44%) of the approved recipient organisations were creches, while 28% were community based or developmental projects and 12% were informal organisations. The remaining 16% were either welfare, religious or service type organisations.

The need for food by the target population, was identified by the recipient organisations. 61% based the needs assessment on the complaints they received from the community and their observation of starvation within the community. 19% of the recipients used only observation and 7% used only complaints from the people as a method of determining the nutritional needs of the community.

The remaining 13% used a combination of surveys, complaints and observation to determine the nutritional needs of their target population.

The recipient organisations were not requested by NNSDP to submit a report on their needs assessment task, thus one cannot conclude that organisations were funded because they were able to determine the nutritional needs of the community.

The funds were mainly used by recipient organisations (52%) for feeding schemes for children attending the creche, and for distributing food parcels to families. Generally, children received snacks or meals twice a day for five days of the week for up to 12 months. Food parcels were distributed monthly over a 6 to 12 month period. Thus, there was an attempt to meet the most basic needs of the poorest people living in environments that have minimum resources and facilities. Under half of the recipient organisations (48%) used funds for developmental projects. These projects ranged from crafts, building and construction, gardening and poultry farming. The NNSDP’s aim of funding developmental projects was to encourage the development of skills among community members so that they may live an independent lifestyle without depending on charity and
hand-outs. However, the applications indicate that there was a greater need for food than for initiating developmental projects.

Development of Human Resources and Capacity building

The research process included a series of consultations and liaison with the NNSDP staff members. During the data collection period the NNSDP programme coordinator and financial monitor expressed a willingness to capture the monitoring forms and the information from the recipient organisations on computer. This resulted in the transfer of skills in terms of maintaining an efficient data management system. In addition, the NNSDP implemented the completion of the monitoring forms by all recipient organisations.

The level of skills development was useful to the extent that the NNSDP project manager was requested to be part of the planning process of the current nutrition programme, namely the Primary School Nutrition Programme. In addition, the NNSDP members are committee members on the Monitoring and Evaluation Committee of the Primary School Nutrition Scheme. This highlights the need for continuous sharing of skills and knowledge between researchers and service providers.

During the actual process of the research a number of important qualitative dimensions emerged. Civil servants in general and the ethos of the government departments was significantly changed in that the initial fear of sharing information was allayed. They benefited from the obvious advantages of objective evaluation together with the increased transparency and legitimacy given to the programme. The sharing of skills and knowledge has paved the way for future collaboration between health service providers and researchers from the Department of Community Health.

Recommendations and Conclusions

The above preliminary findings indicates that the funding of organisations was driven by the demand for food parcels and feeding schemes at the reaches by communities. The recipient organisations had vague goals formulated for their projects and these were based on their subjective observations and not on any needs assessment. Thus, communities were being mobilised around an available source of funding rather than around identifying needs in consultation with the community.

It is suggested that nutrition intervention programmes such as the NNSDP need to have a clear focus that is understood by the community. The criteria for funding needs to be rigorous and based on needs of the community.

Finally, with regard to collaborative work, it is strongly suggested that the researchers involve the service providers and programme manager at the inception of the research study. This facilitates the learning process and the development of skills of both parties.

References

Working document of the NNSDP - 1993
NNSDP Task Team - Restructuring and Focus Report: 1994

9. HUMAN RESOURCE DEVELOPMENT

9.1 Pharmaceutical services at primary care clinics in KwaZulu Natal: Implications for extending the role of the public sector pharmacist in supporting these services

| Grantee: | University of Durban-Westville |
| Programme Director: | Prof C M Dangor |
| Grant amount: | R85 000.00 |
| Grant period: | 18 months |

The purpose of this project is to look at extending the role of the Public Sector Pharmacist by supporting Pharmaceutical Services at Primary Care Clinics in KwaZulu/Natal.

The study is being conducted in two phases.

Phase one will describe the current provision of Pharmaceutical Services at primary care clinics in three regions of KwaZulu/Natal viz. Midlands, North Coast and Southern KwaZulu/Natal. The selection of study sites and development of the methodology for this phase was done in consultation with staff from both Natal Provincial Administration and KwaZulu Department of Health. Permission to collect data was sought from both these departments. Whilst permission was easily granted by the KwaZulu Department, NPA proved to be more tedious.

Three main categories employed to assess the current provision of Pharmaceutical Services are:

a) availability of drugs
b) prescribing of drugs
c) quality of dispensing practice

Each of these categories are further subdivided into measurable variables.

Data for the first phase has been collected and is in the process of being analysed. The actual process of data collection proved to be a memorable and exciting one. The realities of the difficulties experienced by both communities and health workers living in rural and peri-urban areas were highlighted. We were well received at most clinics by both staff and patients. Whilst the results of phase one are not yet available, there were two observations made which are worthy of noting, viz:
1. Nursing staff at primary care clinics are overworked.

Their duties, amongst other things, include consulting with patients, diagnosing, treating and dispensing of medications.

As a result of this one notes:

1.1 little time for health education and community involvement;

1.2 long waiting periods for patients between the consultation and the receipt of their medication;

1.3 insufficient information given to patients regarding their medication.

2. Training of nursing staff related to the pharmaceutical sciences is not adequate. This impacts directly on the quality of medication received by the patients.

Based on the results of Phase one, Phase two, through a process of consultations with key informants, will then make recommendations regarding the role of the Public Sector Pharmacist in supporting Pharmaceutical Services at Primary Care Clinics in KwaZulu/Natal.

The results of this study will be disseminated through conferences and publications.

9.2 Human Resources for Health committee

Report submitted by: Thabo Molefe (Research Intern) attached to the Department of Health

Involved with the Human Resources for Health Committee

The Minister of Health constituted this committee in September 1994, with the brief that recommendations be made within three months for the development of a draft policy for human resources for health care for the country.

The committee was expected to submit a preliminary report by November 15th 1994 and a final report by December 31st 1994. The committee's most immediate task was to come up with a clear set of policy recommendations on the five themes, namely:

- The distribution and utilisation of health care personnel
- The integration of services providers
- Improving efficiency and effectiveness with which human resources are utilised
- Developing institutional capacity for HRD (Human Resources Development) policy, planning and management
- Defining priority education and training needs

The work of the Committee involved exploration of the international literature, study of the local literature - both published and unpublished, the reading of submissions from institutions, organisations and individuals. The Committee also received verbatim submissions by representatives of the environmental health services, supplementary health service professions, public health management training institutions, the nursing associations, employee organisations and trade unions.

Recommendations were made and these are being considered by the Minister.

B. Summary of my responsibilities.

1. Research on the relevant Human Resources Development issues.

2. Analysis of research material.

3. Identify all key stakeholders in HRD within the health field (private, public and development sectors).

4. Assist to organise informal consultative meetings.

5. Review and finalisation of the report; undertaken by all the committee members.

It was beneficial being an active participant in the deliberations of the committee. Although I initially experienced a problem with the technical language, I have achieved an enormous insight in the following:

- How the public sector works
- Human Resources for Health and the RDP
- RDP priorities for health
- Human resources for health in South Africa (The current situation)
- The priority issues with regard to human resources for health in South Africa
- The primary health care approach.
- Analysing research material
- Summarising submissions.

C. Experience gained.

- Research skills
- Involvement in report writing
- Involvement in writing proposals for funding
- Organising consultative meetings.

I want to thank Health Systems Trust for giving me the opportunity to work in this field. I have grown tremendously since I have been working in the Department of Health.
1. Planning the Health System for the
   Greater Pietermaritzburg
   Metropolitan Area

   A workshop was held on 8 April 1994 to plan an
   efficient and effective health system for the greater
   Pietermaritzburg Metropolitan area.

   Pietermaritzburg has a population of about 2 million people
   to which health services were rendered in a fragmented
   manner by the City Health Department, Natal Provincial
   Administration, KwaZulu Health, Department of Health and
   Population Development, and the Development Services
   Board (as on 8 April 1994). This workshop sought to plan for
   the integration of services and the devolution of authority to
   district level.

   To that end, the Health Systems Trust supported the
   participation of Dr. Eric Buch, Medical Officer of Health for
   Johannesburg, in the discussions. Just prior to this workshop,
   the Johannesburg City Health Department had divided its area
   of jurisdiction into 4 districts, with greater devolution of
   management authority.

2. Consequences for Health and Health Care in
   South Africa of the new interim constitution

   The Transvaal School of Public Health, funded by the Health
   Systems Trust, hosted a one day workshop on 13 May 1994
   to study the consequences for health and health care in South
   Africa of the new Interim Constitution.

   Professor Marius Wicchers (UNISA) guided the participants
   through the Constitution, highlighting aspects relevant to
   health care and clarifying its intentions.

   Participants identified and discussed the implications for the
   organisation and management of health care, as well as ethical
   matters such as the right to life.

3. Transforming provincial health systems in support
   of primary health care

   The Centre for Health Policy, supported by the Health
   Systems Trust, organised a seminar to facilitate the planning
   and restructuring of provincial health systems in support of
   district health care.

   This provided an opportunity for representatives of the
   provincial Health Strategic Management teams to interact
   with each other, to address common issues such as the training
   of personnel in support of primary health care and district
   management, criteria for demarcation of provinces into health
   districts, improved management of hospitals, and the role of
   the provincial health authority in supporting the implementation
   of priority directed health services.

4. Towards a National Health Information System
   for South Africa

   Health informatics vendors, users, health service
   managers and academics met on 10/11 March 1994 to
   begin to develop a plan for a national health information
   system for South Africa.

   This meeting constituted the first national gathering of
   stakeholders in informatics support to health care from
   both the public and private sector to discuss the
   implementation of a health information system for
   South Africa.

   If a dynamic, responsive information system was to be
   developed, it would need to address the existing problems
   of fragmentation of information systems in any given
   geographical area; a top-down approach to data
   collection and use; little feedback to lower end-users;
   poor communication and little sense of how information
   can be used to improve decision-making.

   Four policy imperatives dominated discussion at
   Broederstroom.

   First, the pivotal level of informatics support to health
   care is the district level. Second, the information system
   cannot be sustained and developed without significant
   investment in education and training. Third, the national
   information system will be disjointed and ineffective
   unless there are uniform national standards for data
   collection. Fourth, some degree of technological
   standardisation is important to ensure compatibility
   and standard output.

   A number of workgroups were established at the seminar,
   including data and technological standardisation, and
   education and training. These workgroups laid the basis
   for much of the technical discussion which formed part
   of the following phase of development of a national
   health information system, namely the provincial and
   national discussions spearheaded by the new Department
   of Health.

5. Developing a strategy for Health Management
   Training in South Africa

   The transformation of South African health services
   which includes decentralising management structures
   and authority, has highlighted the deficiencies in existing
   training opportunities, and identified new areas of
   emphasis.

   A national seminar organised by the Health Systems
   Trust brought together trainers from academic
   institutions and service providers to discuss and reach
   consensus on a strategy for health management training,
   to be coordinated at national level.

   The inputs and presentations which served as
   background to discussion at the seminar were from a
   broad range of interest groups and individuals. These
   inputs provided an overview of national management
   training needs and an outline for a comprehensive
   national plan, the role of management training in health
   sector transformation, community involvement in health
   management training, the link between management
   training and practice, continuing education and training
   for health systems management, standards and
   sustainability in health management training and the
strengthening of institutional capacity in management training.

Consensus was reached on the need to coordinate management training initiatives nationally to meet national needs, with sufficient flexibility to respond to provincial needs. Emphasis should lie in developing managers who could manage the process of change in the health services. Resources should also be shared between provinces to ensure optimal utilisation.

The critical components of a strategy for management training were that it needed to be integrated with the restructuring of the education system with multiple entry and exit points across institutions offering management training; it must develop a better understanding of community participation and intersectoral collaboration, provide training at all levels, identify short and long term needs and provide channels for private and public input into management training.

A small group was tasked to prepare an Action Plan to take forward the work of operationalising a national health management training strategy. The resultant plan was submitted to the Committee on Human Resource Development for Health appointed by the Minister of Health and supported by the Health Systems Trust.

6. The future role of non-government organisations in health care delivery 3-4 June 1994

Two factors led to the planning of this workshop. First, some of the reasons for the existence of non-government organizations (NGOs) which had provided health care were being challenged by the new political order in which the State was both legitimate and committed to reconstruction and development. This meant that the State would involve itself in areas and activities which were traditionally the domain of community-based and non-government organisations.

Second, community-based organizations (CBOs) had often not been involved in the discussions and debates which had evolved the vision of district-based health care in South Africa. The lack of a vision shared by all health care providers could retard the implementation of a comprehensive health service. Some of the important strengths of CBOs, which were under-developed in the public service, could be lost in the expansion of the health service - unless a way was found to incorporate these strengths into the health plans of provinces and local authorities.

This workshop sought to develop a common vision of the future role of community-based and non-government organizations in health care delivery.

While the focus of discussion was the role of community-based non-government organizations, there was recognition that the same concerns needed to be addressed by national non-government organizations such as the South African National Tuberculosis Association (SANTA) and the South African Red Cross.

Having discussed the changing milieu in which non-government organizations would need to operate, further discussion was devoted to developing a better understanding of the specific changes envisaged in the South African health sector.

The most pertinent development for NGOs would undoubtedly be the movement toward district-based health care. NGOs could act as a rudder, steering the health services toward district-based health care. The infrastructure, the human and financial resources, and the powerhouse remain the primary responsibility of the government. But an NGO can have a significant say in determining the course that health services will take.

Every NGO needed to undertake its own strategic planning to meet the changed circumstances. It was agreed that all organizations present would undertake to address these questions within their own organizations, and would encourage other local NGOs to do the same.

There was a recognition that genuine district systems development would only occur if local people took the initiative. NGOs had an important part to play in promoting the move towards district-based health care.

7. Supporting community-based organisations in their strategic planning

Community-based organizations (CBOs) involved in health care delivery need to rethink their role in the changed South Africa. This was the clear message emerging from a two day meeting of CBOs held in June Furse, Schukhune in June 1994.

On 27 September 1994, a follow up workshop was held in Groutville, KwaZulu-Natal to explore ways in which CBOs could be supported to undertake the strategic planning necessary to ensure their long-term sustainability.

CBOs are faced with two imperatives: First, to reconsider their role in the light of changed political circumstances. Second, to plan strategies to secure continued funding.

Participants recognised the need for assistance to address these imperatives, and suggested the following mechanisms of support:

Establishment of a clearing house for information

Information for advocacy and action needed to be timely and accurate. Participants felt that a central source of information readily accessible to CBOs may be one way of achieving this.

CBO support team

The idea of a CBO “support team” was mooted. This team, comprised of individuals around the country, could be commissioned to assist CBO’s in their strategic planning and in accessing funds.
Training

Some of the greatest weaknesses of CBOs were related to human resource and financial management. Training in these areas could enhance the effectiveness of CBOs.

Better networking

A united front could only be presented to government if carefully documented information pertaining to the work of CBOs was shared, and if alliances between CBOs and NGOs were strengthened.

The meeting concluded that these mechanisms should be discussed with funders which had expressed an interest in furthering support of CBOs, and within the organizations themselves.

8. The role of the media in health reform
10-13 November 1994

The Health Systems Trust and Kaiser Family Foundation organised the second travelling seminar which explored the role of the media in health reform. The purpose of this annual event is to push health issues higher up the agenda of media editors to ensure greater coverage, and to promote more substantive reporting of health and health care.

The 1994 Seminar was held in KwaZulu Natal with site visits to Groutville and Maputaland. More than fifty people - journalists, health experts, and government officials gathered to examine the role which the media might play in the process of health care reform. Site visits were balanced with discussions, formal and informal, and prominent personalities - including the Minister of Health - expounded on various aspects of the overall theme.

Dr Zuma summed up the government’s view of the role of the media in health reform: “We need the media. The concepts of promotion and prevention needs mass communication. We should develop a dynamic working relationship with the media: they need to make the news. I need to get messages across.”

Professor Olukaye Ransome-Kuti, until recently Minister of Health in Nigeria, emphasised the need for the media to grasp the workings of the whole health system: “For the press to be relevant, it needs to understand the philosophical background to the whole structure of reform. Individual issues can then be logically positioned.”

Visits to Groutville, a small settlement which was home to ANC president Albert Luthuli and with a long history of neglect under apartheid, and Maputaland in remote northern Natal helped to focus discussion on the problems experienced by people living in rural areas.

The final word comes from David Robbins, Health Reporter on the Star Newspaper: “If the seminar ultimately produced more in terms of raised consciousness than in solid conclusions, and more in argument than in consensus, such results should be viewed as an indication of the varied stimuli it offered rather than any significant mark of failure. Indeed, in one respect the seminar appeared to have a remarkable success. Under the quite remorseless focus of a full and varied programme, health care emerged as a multi-headed creature which could be taken lightly only at the nation’s peril.”
1. South African Health Expenditure Review

Introduction

This South African Health Expenditure Review was conducted over a two year period with the technical support of the World Bank. This extensive process was endorsed by the African National Congress and the Department of Health, and involved individuals and organisations in the public and private sector throughout the country. The review was funded by the Commission of the European Union and the Overseas Development Administration. The Health Systems Trust co-ordinated the entire process.

Process

The process was spelt out at the outset in the first Technical Paper, and has proceeded according to plan. The timeframe for completion, however, has been considerably longer than anticipated.

National Planning meeting

A national meeting to plan the national review was held in June 1993. Representatives from a range of political, academic and research organizations participated, and the process culminated with the establishment of a Reference Group. This group consisted of representatives from the African National Congress and the Department of Health, the World Bank, the private health sector, and research and academic institutions. The Health Systems Trust served as Reference Group convenor and co-ordinator of the process.

Technical Reports

A series of ten technical reports were commissioned and published for discussion and review. This review served to inform the authors of the final consolidated report.

Planning for the Health Expenditure Review

This paper outlined the research and data collection methods, as well as the intended workplan.

The Distribution of Health Expenditure between level of care: A Literature Review

This paper reviewed different methodologies applied to assess expenditure at different levels of care, as well as a review of relative expenditure between levels of care in other countries.

Documentation of capital expenditure on new health care projects

Planned capital expenditure on health was quantified.

Donor-funding in health care in South Africa

The amount of donor funding to the health sector in South Africa was quantified.

Provincial Health Expenditure Review: Eastern Transvaal, Northern Transvaal, PWV and North West.

An analysis of ReHMIS data formed the basis for assessing public health expenditure in four of the provinces of South Africa.

Groutville Clinic
Research Expenditure in South Africa 1991/2:
This paper reviewed research expenditure, including public and private sources of financing.

Public Expenditure on the Education and Training of Medical Personnel

Education and training is financed through several budget votes. This study collated that information.

Trends in Provincial Health Expenditure

Provinces, primarily responsible for curative care, receive the greatest allocation of public health funding. This study reviewed trends in their expenditure over a decade.

A review of Private Health Care Expenditure in South Africa

This study was the first comprehensive review of private health expenditure in South Africa.

An analysis of resource allocation to community and hospital services in homeland and health wards

There has been no differentiation between expenditure at different levels of care in homeland health wards. This study attempted to do just that in health wards in three different homelands.

Drafting and review process

Each technical paper was subject to formal review by at least reviewer, and disseminated widely for comment and information.

A drafting team consisting of three South Africans and a consultant funded by the Overseas Development Administration was responsible for the final report. This report was sent to twenty reviewers, including individuals in the national and provincial departments of health, several of the large local authorities, and the World Bank.

Final publication

The final report was presented to the Minister of Health in April 1995.

This publication represents the most comprehensive overview of national health expenditure yet compiled in South Africa.

2. A review of Private Sector Health Care Expenditure in South Africa

Grantee: Dept of Community Health, University of Cape Town
Programme Director: Di McIntyre
Grant amount: R12 738.00
Grant Period: 3 months

Researchers: Nicole Valentine and Di McIntyre

The only routinely available source of total private sector expenditure estimates are documented by the South African Reserve Bank (SARB). The figure published by the SARB is an estimate broken down into two expenditure categories: expenditure on medical services and expenditure on medical and pharmaceutical products.

A number of researchers had suggested that this source underestimated expenditure. The purpose of this research project was to determine whether this was the case and to obtain a more accurate estimate of total private sector expenditure.

The researchers succeeded in accomplishing their objective. The final estimate for total private sector expenditure at health care services was R15,430 million for the period April 1992 to March 1993 (This period was chosen to ensure comparability with the public sector financial year.). The SARB estimate for the same period was R10,659 million, R4,682 million below our final estimate. When insurance reserves and scheme/policy administration expenses were taken into account, the value for total private sector expenditure rose to R17,923, further emphasising the difference between the SARB estimate and the estimate generated from the research.

As a result of the increased estimates, the percentage of total private sector health care expenditure of Gross National and Gross Domestic Product (GNP and GDP) for 1992/93 rises from 3.10 and 3.02 percent to 5.22 and 5.08 percent respectively.

Other significant expenditure findings recorded were expenditure by schemes not reporting to the Registrar at R1,469 million, expenditure by the insurance industry of R180 million, expenditure by industry of R472.2 million, schemes-gap expenditure (i.e. the difference between the amount that schemes were billed and what they paid out) of 1,692 million, out-of-pocket expenditure at GPs of R688 million and expenditure on over-the-counter medicines of R1,514 million.

The breakdown in expenditure from public and private sources to public and private providers was also calculated. Public sources of expenditure identified were public servant medical schemes. Total expenditure by these schemes was calculated to be R1,782 million. Most of this sum was spent on services provided by the private sector. As this sum is contributed by government from general taxation revenue, they clearly have a stake in setting limits on the cost of this form of coverage.

The difference between total expenditure by civil servant and private schemes at public and private sector services is also significant. Expenditure from both public (civil servant schemes) and private sources at public sector providers was R450 million compared with the R14,701 million at private sector providers. If government would like this difference reduced, it would
need to consider what policies could be introduced and the implications of these policies for equity of access to public services.

The report highlighted another area of the public/private mix which requires further research: the amount of taxation paid by private sector providers. Taxation represents a source of revenue to central government and also has implications for costs in the private sector.

Given the magnitude of health care resources within the private sector in South Africa and the important input which expenditure data could contribute to policy formulation and monitoring, it is essential that more accurate documentation of total private health care expenditure be undertaken routinely.
1. **Introduction**

The Project for Health Information Dissemination aims to provide a reliable source of information about health and health policy in South Africa, and to serve as a channel through which health systems research results and recommendations can be shared.

**Publications**

**Project for Health Information: Project Outline**

This document was prepared in order to outline activities of the Project for Health Information Dissemination (PHID). The Editorial Board of the PHID adopted the Project Outline as an official document of PHID in October.

**Directory of Health Systems Research in South Africa**

The Directory is a yearly update of health systems research in South Africa, and provides profiles of research activities. Each profile includes a summary of the research, and is intended to provide a basis for networking and information exchange forum for researchers undertaking similar or related research. The first edition was published in August 1994. The Directory was disseminated to institutions, organisations and individuals that contributed to its compilation as well as others who have since sent requests for it. Although a questionnaire was sent out with the Directory to solicit information on research findings and recommendations, very little has been received from researchers.

**H S T Update**

The newsletter has been published monthly as from November 1994. It describes significant research results, recommendations, policy debates and decisions. Articles focus on a specific theme for each edition. The following themes were featured: *Health sector developments, Integrating public and private health care, and Informatics support to health care*. Update is circulated to approximately 400 readers.

**South African Annual Health Review**

The publication is the major output of PHID, intended to provide an annual review of health policy developments and implementation in South Africa. An editorial board consisting of six members was constituted in August, to review and approve the final draft of the Review, and ensure that all PHID publications address the objectives of the Project.

The board members consist of Dr. Sedick Isaacs (Chairperson) - Head of Department of Medical Informatics Groote Schuur Hospital, Ms Francie Lund - Senior Researcher, Centre for Social and Development Studies University of Natal, Dr. Dan Ncayiyana - Editor of South African Medical Journal, Mrs Mary Reynolds - Publisher, Oxford University Press (Cape Town), Ms Laetitia Rispel - Senior Researcher Centre for Health Policy University of Witwatersand, Ms Bessie Tugwana - Editor True Love Magazine.

The editorial board provided guidance on the content of, and time frames for the Review. Authors for the Review were identified and commissioned, with the first detailed outline of the chapter/section expected by mid-December. The anticipated date for the publication of the Review is June 1995.

**Other Activities**

**HST Resource Centre**

Activities included organising periodicals with the assistance of two interns from ML Sultan technikon, for our small but growing resource centre. An index of newspaper articles on health care received from the Cooperative for Research and Education was initiated.

**HealthLink**

PHID was involved in the initiation of the E-mail communication and information network, through visits to HealthNet sites in Zambia and Kenya and pilot areas in South Africa. Consultations and meetings were held with various organisations and Steering Committees of the pilot regions to create awareness about HealthLink and facilitate the development of regional HealthLink plans. PHID's major support to HealthLink continues to be the identification and the coordination of health information databases to be disseminated through the network.
STRATEGIC MANAGEMENT TEAMS

Overview

The Health Ministry of the Government of National Unity is undergoing a process of transformation in order to implement the constitution, address the reconstruction and development priorities and focus on a representative public service. To achieve this, necessitated the amalgamation of all administrative structures and the creation of new Departments together with forming a team of dedicated people from within and outside the Government.

To this end, a Strategic Management Team was established in each Province of South Africa to engage in the creation of the Department of Health. The need for the SMT’s stemmed from the fact that although the Department had new political leadership, it inherited the bureaucracy of the previous Government. This situation meant that the new political leadership had to formulate perspectives on how the new Government programmes and priorities were to be achieved, and this function could not be left only to a civil service of the previous Government.

Composition of SMT’s

The SMT’s are made up of the provincial Minister of Health, the MEC responsible for health in the provinces and the accountable officers or their representatives in the former administrations of the TBVCs, homelands, provincial administrators and the Department of National Health and Population Development. In addition, certain individuals are drawn from NGOs which work in the health sector.

Their work was complemented by the following national committees:

1. Health Care Finance Committee
2. Human Resource Commission
3. Maternal and Child-Health Committee
4. Legislation Committee
5. Drug Policy Committee
6. Academic Health Centre Committee
7. Nutrition Surveillance Committee
8. Oral Health Committee

Objectives

It is expected that by the end of this exercise each province should have a fully functioning health care system and will include:

- agreed upon RDP priorities of the Department at national and provincial levels
- new functions of the Department
- the new departmental organogram
- implementation strategy

Activities

A grant from the Henry J. Kaiser Family Foundation, through the Health Systems Trust, is being utilised as follows:

- A series of strategic planning meetings are being held at the Department of Health in Pretoria, to work towards achieving the above-mentioned objectives;
- Work in the different provinces is being undertaken including
  1. Rationalisation of the former TBVC homelands, former Department of National Health and Population Development and former provincial administration budgets, personnel, facilities and equipment.
  2. Rationalisation of legislation to remove apartheid laws.
  3. Development of RDP priorities for Health and strategies to implement the same.
  4. Development of a new organisational structure of the Department at both National and Provincial levels.
  5. Development of new policies for Health jointly by the National Minister and the MECs
  6. Development of a National Health System.

Conclusion

To date, various meetings, workshops and conferences have been held at both National and Provincial levels - in pursuance of the objectives set by the Department of Health. It seems likely that by the conclusion of this project a new organisational structure of the Department at national and provincial levels will be implemented, each Province will have a fully functioning Health Care System and strategies for the development of a national health system will be in place.
HEALTHLINK

Introduction

The last few years have seen the beginning of the so-called information revolution. It is now possible for people across the globe to exchange messages, participate in discussion groups or get access to information. However, the infrastructure required for this technology is expensive and is at present largely limited to developed countries.

In South Africa the use of this technology has been confined to the larger urban centres. Recently within the Department of Health it has been recognised that the extension of Information Technology is a priority in the restructuring of health services. Discussions are already underway to implement a national health information and communication system. However, it is still uncertain which of the available technologies will be used. One priority will be the extension of existing on-line services. However, this type of system is expensive and will take a long time to implement. For the next few years at least it will probably not extend beyond the major administrative centres. Alternative types of technology need to be investigated, particularly for use in remote areas.

Objectives of HealthLink

Major objectives of the pilot project are:

1. Introduce health workers to Information Technology
2. Establish a basic E-mail communication system for health services
3. Improve management of health services.
4. Provide isolated health workers with access to information resources.
5. Contribute to planning of a national health information and communication system.

Description of project

HealthLink is a pilot project to evaluate an E-mail communication system and its impact on the management of health services. Some funding has been made available from the Henry J. Kaiser Family Foundation and the pilot project is being co-ordinated by the Health Systems Trust. Three of the most disadvantaged provinces have been selected for the pilot phase; the Northern Transvaal, the Eastern Cape and the Orange Free State.

Planning for the HealthLink project was completed during the period August to December 1994. In each of the pilot province, representatives from the Provincial Health Department, the health sector NGOs and the academic institutions formed a planning group which has identified the points to be linked up in each province and how HealthLink will be used in the management of the provincial health service. The proposals have been developed with the following principles in mind:

1. To promote equity in health care.
2. To be supportive of the provincial administration’s plans for restructuring of the health services.
3. To promote local development.

The proposals developed provide for the linking up of about 10 - 50 points in each of the three regions. The majority of these points are in rural or peri-urban areas. The points have been selected primarily to examine the use of the communication system in the management of district level services. In the Eastern Cape, the 20 clinics in the Umtata district and the 18 clinics in the Mdantsane district will be connected as well as the hospitals in the former Ciskei. The Northern Transvaal proposal has a broader coverage of the province. In each of the 6 new health districts the district hospital and the 4 or 5 clinics will be connected. The OPS will focus on health facilities in the Thaba Nchu and Botshabelo areas.

Computers and modems will be provided at the majority of points selected. At each point the software will be installed and the health workers at that point trained in the use of the system. Training sessions will be also held with groups of users in a particular area. Messages will be sent and received through a regional node which will be established in each province. A national gateway to
link the system to the Internet will be established in Johannesburg.

Once the technology is installed and running, the emphasis will be on the utilisation of the system in the management of district health services. Other priorities will be the distribution of appropriate newsletters and enabling the users to access information and databases resources.

The technology used will depend on the available infrastructure. Mostly we will be using systems such as Fido or UUCP which have been used successfully in other developing countries. Fido or UUCP are store-and-forward email systems which do not provide all of the tools which more sophisticated technologies can provide, but are much cheaper to install and maintain and have proved particularly appropriate in developing countries.

In each province, personnel will be trained in the management of the regional node. A regional manager will be appointed to oversee the functioning of the system and to provide user support at a local level. The National Manager will coordinate the three pilot projects and be responsible for the financial administration of the project.

A national committee has been established to direct the national planning and implementation of HealthLink. This comprises representatives from the pilot provinces, the Department of National Health and the Health Systems Trust. As the project develops, provincial and national users councils will be formed to take over this task. An evaluation group is being established to oversee the evaluation of the project. A number of technical consultants are involved in the planning and implementation of the project. The implementation of these proposals will begin in February 1995.
SKILLS DEVELOPMENT PROGRAMME (SDP)

Introduction

In addition to the capacity-building which we regard as integral to every research project, HST runs a programme aimed at developing new skills in health systems management, planning and research. The Skills Development Programme (SDP) now in its second year of operation has targeted people who have been disadvantaged and discriminated against in the past (though not exclusively). The programme is presently managed by the Assistant Director in the HST. Specifically, HST has supported management training programmes in KwaZulu-Natal, Eastern Transvaal and Free State. In line with efforts to foster a health team approach, groups of health workers from remote and rural areas such as northern KwaZulu-Natal, Kimberley and Botshabelo have been assisted to participate in training courses in health planning, research and evaluation.

Also, the Board of Trustees of the Health Systems Trust has a particular concern about the quality of health systems research being undertaken in South Africa. In recognition of this fact, HST has commissioned organisations such as the Medical Research Council and Centre for Health and Social Studies (CHESS) to develop appropriate initiatives to address these concerns.

A final component of the Skills Development Programme is enabling black researchers and health managers to participate in training activities in other developing countries.

Profile of beneficiaries of the programme

A total of 177 people have been assisted since the inception of the programme. The majority of these people were women, that is, 73%. Africans constituted the largest proportion of beneficiaries (79%) followed by Coloureds (12%), Whites (8%) and Indians (1%). In terms of occupation, nurses comprised the largest proportion (42%), followed by Community Health Workers (17%) and Researchers (10%). All the geographical areas (new provinces of South Africa) were represented with varying degrees. The majority of people assisted came from KwaZulu Natal, Western Cape and Free State.

Major Categories of Skills Development

The following constitute the 4 major categories of skills development for which the beneficiaries were supported and the sources of funding. The categories are not mutually exclusive.

Management Training

Attendance at courses

All the beneficiaries who received support in management training came from non-governmental organisations (NGOs) and they constituted 13% of the total number of people who were supported.

Training of PHC and district managers and administrators - KwaZulu Natal

This programme is targeted at managers and administrators of PHC centres and clinics in KwaZulu Natal. The overall aim of the programme is to improve health care services in the PHC centres and clinics by equipping and enabling PHC managers and administrators to identify and appropriately respond to the health needs and management problems encountered in the health centres.

The main specific objectives that will be addressed by the programme are: analysing in greater detail the nature and extent of the problems that prevent health workers from providing a quality PHC service in the province; equipping area managers and clinic supervisors with skills to enable them to provide appropriate management training to clinic workers; providing staff development for the training personnel. The programme will emphasize health team-building and district health systems management approaches.

The programme is being managed by the Centre for Health and Social Studies (CHESS), University of Natal. A training team comprising members of CHESS and seconded health professionals from the provincial Department of Health, has been assembled. Training will occur in the districts and clinics.
SKILLS DEVELOPMENT
LOCATION OF PARTICIPANTS

Training of PHC and district managers and administrators Eastern Transvaal

Similar to the programme mentioned here-above, the programme will be targeted at PHC centres and clinics. Support will also be offered to district and sub-regional programmes. Management training materials and evaluation tools will be developed.

The overall aim of the programme is to expand on existing management training programmes in the north and eastern Transvaal region. The specific objectives of the programme are to: produce appropriate teaching materials on the existing management training; develop an expanded management training programme, both a broader curriculum and an extended target audience; support other district and sub-regional programmes; develop appropriate evaluation tools that will be used to evaluate the programme. The programme is being managed by the Health Services Development Unit (HSDU).

(Health Systems) Research

Fifteen (48%) of beneficiaries received training in Health Systems Research, including qualitative and participatory research methodologies. The bulk of these people were research interns attached to research projects that are funded by HST. A special programme on research protocol development has been organised for the interns and is managed by the Medical Research Council (MRC).

Team-building

This represents a new approach adopted by HST which emphasizes developing various but interlinked skills of a team of people than individuals. A team of 7 people from a community-based women’s health organisation in the Western Cape was trained with assistance from the Department of Community Health, University of Cape Town in research (including qualitative techniques) and evaluation methodologies. Similarly, a team of 23 people from a community-based programme in Botshabelo were assisted.

Health planning, promotion and epidemiology

Out of the 6 people who were assisted, 4 received in-house training organised by the Medical Research Council (MRC), one attended a course on Nutrition Planning and Management in Indonesia and the other one a course on Planning for the economic, demographic and manpower implications of HIV/AIDS in developing countries.
SKILLS DEVELOPMENT
RECIPIENTS BY PROFESSION

SKILLS DEVELOPMENT
BY GENDER AND RACE

Women 73%
Men 27%

African 77%
Indian 1%
Coloured 12%
White 8%
AUDITED FINANCIAL STATEMENTS

REPORT OF THE INDEPENDENT AUDITORS

To the trustees of the

TRUST FOR HEALTH SYSTEMS PLANNING AND DEVELOPMENT

We have audited the following financial statements. These financial statements are the responsibility of the trustees whilst our responsibility is to report thereon.

We conducted our audit in accordance with generally accepted auditing standards which require that we plan and carry out the audit to obtain reasonable assurance that fair presentation is achieved in the financial statements in all material respects. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting policies used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We consider that our audit procedures were appropriate in the circumstances to express the opinion presented below.

In our opinion these financial statements fairly present the financial position of the Trust at 30 June 1994 and the results of its operations and cash flow information for the year ended in conformity with generally accepted accounting practice.

Price Waterhouse Meyernel

30 August 1994
**INCOME AND EXPENDITURE STATEMENT**

FOR THE YEAR ENDED 30 JUNE 1994

<table>
<thead>
<tr>
<th>Note</th>
<th>1994</th>
<th>23 April 1992 to 30 June 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td>2</td>
<td>6,307,106</td>
</tr>
</tbody>
</table>

**SURPLUS FOR THE PERIOD**

2,116,111 | 4,621,965

After charging/(crediting) the following items:

Auditors’ remuneration

- current year provision | 10,000 | 4,000 |
- prior year underprovision | 424 | - |
- other services | 1,710 | - |

Depreciation | 10,719 | 5,397 |

Operating lease charges

- premises | 41,561 | 32,080 |
- equipment | 3,036 | - |

**SURPLUS FOR THE YEAR TRANSFERRED TO ACCUMULATED FUNDS**

3 | 2,116,111 | 4,621,965 |
**BALANCE SHEET**

**AT 30 JUNE 1994**

<table>
<thead>
<tr>
<th>Note</th>
<th>1994</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>

**CAPITAL EMPLOYED**

**ACCUMULATED FUNDS**

<table>
<thead>
<tr>
<th></th>
<th>6 738 076</th>
<th>4 621 965</th>
</tr>
</thead>
</table>

**EMPLOYMENT OF CAPITAL**

**FIXED ASSETS**

<table>
<thead>
<tr>
<th></th>
<th>66 989</th>
<th>30 582</th>
</tr>
</thead>
</table>

**CURRENT ASSETS**

- Accounts receivable: 35 165
- Cash on deposit and at bank: 6 682 020
- Cash on hand: 648

<table>
<thead>
<tr>
<th></th>
<th>6 717 833</th>
<th>4 615 340</th>
</tr>
</thead>
</table>

**CURRENT LIABILITIES**

- Accounts payable: 46 746

<table>
<thead>
<tr>
<th></th>
<th>46 746</th>
<th>23 957</th>
</tr>
</thead>
</table>

**NET CURRENT ASSETS**

- 6 738 076
- 4 621 965
# CASH FLOW STATEMENT

FOR THE YEAR ENDED TO 30 JUNE 1994

<table>
<thead>
<tr>
<th>Note</th>
<th>1994</th>
<th>23 April 1992 to 30 June 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>

## CASH GENERATED BY OPERATING ACTIVITIES

- Cash generated by operations: 5 1,565,174 4,378,385
- Investment income: 561,656 248,977
- Generated by increase in working capital: 11,452 129
- Cash generated by operating activities: 2,138,282 4,627,491

## CASH UTILISED IN INVESTING ACTIVITIES

- Investment to expand operations
  - additions to fixed assets: (47,126) (35,979)
  - Total: 2,091,156 4,591,512

## CASH EFFECTS OF FINANCING ACTIVITIES

- Increase in cash balances: (2,091,156) (4,591,512)
NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 1994

1 ACCOUNTING POLICIES

The financial statements have been prepared on the historical cost basis and incorporate the following principal accounting policy:

Fixed Assets

Fixed assets are depreciated on a straight line basis at rates considered appropriate to reduce book values over the useful lives of the assets to estimated residual values. The rate used is 15% for furniture and fittings and 25% for computer equipment.

Funded projects

Funds granted to approved projects are expensed as and when payments are made, even if projects are of an ongoing nature.

2 GRANTS RECEIVED

<table>
<thead>
<tr>
<th></th>
<th>General fund</th>
<th>Health and Information Dissemination</th>
<th>Skills Development Programme</th>
<th>District Systems Support and Management Training</th>
<th>Health Expenditure (R000)</th>
<th>1994</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser Family Foundation</td>
<td>397 378</td>
<td>842 775</td>
<td>338 900</td>
<td>-</td>
<td>-</td>
<td>1 579 053</td>
<td>2 371 52</td>
</tr>
<tr>
<td>Kagiso Trust</td>
<td>1 117 975</td>
<td>-</td>
<td>-</td>
<td>1 083 581</td>
<td>574 497</td>
<td>2 776 053</td>
<td>1 080 000</td>
</tr>
<tr>
<td>Rockefeller Foundation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>315 263</td>
</tr>
<tr>
<td>Department of Health</td>
<td>1 952 000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1 952 000</td>
<td>976 000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3 467 353</strong></td>
<td><strong>842 775</strong></td>
<td><strong>338 900</strong></td>
<td><strong>1 083 581</strong></td>
<td><strong>574 497</strong></td>
<td><strong>6 307 106</strong></td>
<td><strong>4 742 789</strong></td>
</tr>
</tbody>
</table>

3 ACCUMULATED FUNDS

General fund balance at beginning of year    4 621 965
(Deficit)/surplus for the year               (166 935) 4 621 965
Project for Public Health and Information Dissemination surplus for the year 817 424
Skills Development Programme surplus for the year 200 139
Management Training surplus for the year 960 634
Project for Health expenditure preview 304 849
Surplus for the year 2 116 111 4 621 965

6 738 076 4 621 965
NOTES TO THE FINANCIAL STATEMENTS

4 FIXED ASSETS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer equipment</td>
<td>53 717</td>
<td>9 667</td>
<td>44 050</td>
<td>13 904</td>
</tr>
<tr>
<td>Furniture and fittings</td>
<td>29 388</td>
<td>6 449</td>
<td>22 939</td>
<td>16 678</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83 105</strong></td>
<td><strong>16 116</strong></td>
<td><strong>66 989</strong></td>
<td><strong>30 582</strong></td>
</tr>
</tbody>
</table>

5 CASH GENERATED BY OPERATIONS

Operating income before interest and taxation | 2 116 111 | 4 621 965 |

Adjustment for:
- depreciation |
  - investment income |

<table>
<thead>
<tr>
<th></th>
<th>(561 656)</th>
<th>(248 977)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td><strong>1 565 174</strong></td>
<td><strong>4 378 385</strong></td>
</tr>
</tbody>
</table>

6 GENERATED BY INCREASE IN WORKING CAPITAL

Increase in accounts receivable | (11 337) | (23 828) |
Increase in accounts payable    | 22 789    | 23 957    |
| **Total**                    | 11 452    | 129       |

6 TAXATION

No provision for taxation has been made as the Trust has applied for exemption from income tax in terms of Section 10(1)(f) of the Income Tax Act.
### AGGREGATED INCOME AND EXPENDITURE STATEMENT

FOR THE YEAR ENDED 30 JUNE 1994

#### INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>1994 R</th>
<th>30 June 1993 R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grants</td>
<td>6 307 106</td>
<td>4 742 789</td>
</tr>
<tr>
<td>Less: funded projects</td>
<td>4 138 249</td>
<td>50 805</td>
</tr>
<tr>
<td>Contributions after funded projects</td>
<td>2 168 857</td>
<td>4 691 984</td>
</tr>
<tr>
<td>Interest received</td>
<td>561 656</td>
<td>248 977</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>300</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>2 730 513</td>
<td>4 941 261</td>
</tr>
</tbody>
</table>

#### ADMINISTRATION EXPENSES

<table>
<thead>
<tr>
<th>Description</th>
<th>1994 R</th>
<th>1993 R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td>7 561</td>
<td>7 364</td>
</tr>
<tr>
<td>Advertising</td>
<td>11 404</td>
<td>13 059</td>
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<tr>
<td>Audits' remuneration</td>
<td>12 134</td>
<td>4 000</td>
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<tr>
<td>Bank charges</td>
<td>2 560</td>
<td>1 570</td>
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<tr>
<td>Beverages</td>
<td>740</td>
<td>434</td>
</tr>
<tr>
<td>Catering</td>
<td>1 183</td>
<td>2 729</td>
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<tr>
<td>Conferences</td>
<td>1 584</td>
<td>-</td>
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<tr>
<td>Depreciation</td>
<td>10 719</td>
<td>5 397</td>
</tr>
<tr>
<td>Electricity</td>
<td>4 783</td>
<td>7 067</td>
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<tr>
<td>External visitors</td>
<td>3 341</td>
<td>-</td>
</tr>
<tr>
<td>Insurance</td>
<td>729</td>
<td>663</td>
</tr>
<tr>
<td>Operating lease charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- premises</td>
<td>41 561</td>
<td>32 080</td>
</tr>
<tr>
<td>- equipment</td>
<td>3 036</td>
<td>-</td>
</tr>
<tr>
<td>Legal fees</td>
<td>570</td>
<td>517</td>
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<tr>
<td>Parking</td>
<td>3 229</td>
<td>1 976</td>
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<tr>
<td>Pension</td>
<td>37 737</td>
<td>13 200</td>
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<tr>
<td>Postage</td>
<td>3 446</td>
<td>1 524</td>
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<tr>
<td>Publications</td>
<td>1 012</td>
<td>379</td>
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<tr>
<td>Repairs and maintenance</td>
<td>220</td>
<td>-</td>
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<tr>
<td>Salaries</td>
<td>258 316</td>
<td>130 711</td>
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<tr>
<td>Sundries</td>
<td>7 546</td>
<td>616</td>
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<tr>
<td>Stationery / printing</td>
<td>50 712</td>
<td>9 444</td>
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<tr>
<td>Telephone / fax</td>
<td>25 228</td>
<td>11 133</td>
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<tr>
<td>Training</td>
<td>870</td>
<td>2 824</td>
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<tr>
<td>Unemployment Insurance Fund</td>
<td>706</td>
<td>926</td>
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<tr>
<td>Workman's compensation</td>
<td>-</td>
<td>170</td>
</tr>
<tr>
<td>Workshops</td>
<td>-</td>
<td>4 258</td>
</tr>
<tr>
<td>Travelling</td>
<td>123 475</td>
<td>67 255</td>
</tr>
<tr>
<td><strong>Total Administration Expenses</strong></td>
<td>614 402</td>
<td>319 296</td>
</tr>
</tbody>
</table>

#### RETAINED SURPLUS FOR THE PERIOD

<table>
<thead>
<tr>
<th>Description</th>
<th>1994</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 116 111</td>
<td>4 621 965</td>
</tr>
</tbody>
</table>