Affordable choices in the social services

Ina Snyman (Editor)

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The publication consists mainly of the updated and edited contributions to an information seminar held on 24 September 1990 at which the results obtained from a number of research projects on the provision of health services and housing were discussed.

While I gratefully acknowledge the contribution of everybody participating in the seminar, I would like to express a special word of thanks to the researchers who had to start by submitting a proposal to one of the subprogrammes, undertake the research, read a paper at the seminar and subsequently prepare it for publication, and finally write a comprehensive research report to conclude their project.

All of these reports have been published under the authors' names.

However the HSRC, particularly the two committees, do not necessarily agree with the views expressed and the conclusions reached in this publication.

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PREFACE

Over the past few years a large number of research projects have been registered under the Co-operative HSRC Research Programme(s): Affordable Material Provision and Affordable Social Provision. Some of these projects related to health and housing, and since several of them were nearing completion, an information seminar was held on 24 September 1990 at which the researchers involved in these projects read papers on their research results.

Although superficially the subjects of health and housing might appear insufficiently related to be dealt with at the same seminar, they have common characteristics, and researchers were expected to pursue common objectives in their research on either topic.

As far as common characteristics are concerned, both are social services, traditionally heavily subsidized in favour of those people who operate in the formal market where medical aid and housing subsidies are occupational (welfare) perks. Consequently researchers had to discover or develop guidelines on ways and means of making health care or housing more affordable, available, accessible and cost-effective. Furthermore, network building and the maximization of resources were considered to be important in both fields.

The research in the health field revealed that some of the underutilized or unrecognized resources included self-care, traditional healers and paraprofessionals such as village health workers and health facilitators.

Similar findings were noted in the projects on housing, namely that providing conventional dwellings for all was an unrealistic expectation, that the construction of informal dwellings could contribute substantially to several of the objectives of the economy - growth, job creation and income sharing - and that several types of saving could be effected if people could live closer to their place of employment as well as to one another.

The contents of these proceedings comprise the papers read, as well as the introductions by the two chairmen. However very interesting points were made in the discussions, some of which were new while others summarized poignantly some of the researchers' findings or conclusions. These points are discussed in this preface.

In the discussion of the papers on affordable **health care** the following comments and suggestions were made:

- For the training of paraprofessionals, traditional healers, etc., existing resources such as the training programmes of the Department of National Health and Population Development, and those of Manpower, should be used.

- There should be a continuum of health practitioners; and members from complementary professions such as homeopaths, occupational therapists, etc., should be used as a bridging group between the sophisticated professionals and the traditional practitioners.

- Traditional healing or medicine should not be assumed to be rudimentary; a herbalist is capable of developing a sophisticated remedy (although possibly by trial and error).

- As far as the type of health practitioner used is concerned, people will often say - when asked in a formal or survey situation - that they do not "believe in" sorcery, etc., but may admit that they have been to a diviner recently.

- The picture of health is incomplete if it includes only a comparison of curative modern care with traditional care. Self-care also means a healthy life-style, including the use of clean water, correct feeding habits, sanitation, decent housing, etc. The very poor often have no access to the resources necessary for such a life-style, and networking is required so that the authorities responsible for providing some of these resources will be involved in the total health-care plan.

- Medical students should take cognizance of the research discussed.

The main points of the discussion on affordable **residential accommodation** can be summarized as follows:

- The state might, as anticipated, devote more resources to housing, but not a great deal more. The optimization of these resources was therefore essential: maximum income generation, income distribution and job creation should result from the state's investment in housing construction.

- The Group Areas Act remained a problem. People could move, travel and work everywhere, but they could not settle *legally* anywhere they wished. (Since the seminar legislation has been introduced to address this inconsistency.)

- Settling space was needed close to large centres of work. This would allow several economies of scale, *inter alia* mass transport over shorter distances.

- Residential accommodation should not be planned in isolation. Most of the residents would either attend educational facilities or go to work, would have to use

transport and would need a place to shop for essentials. The "basic needs" approach therefore had to be followed.

- The developers of residential accommodation and the policy makers concerned still had to find ways of developing for optimal use the other services in a residential area. Schools, clinics, etc., were too exclusive and expensive in terms of the limited time they were in use, and the limited number of categories of users or consumers they catered for.

- There should be more intermediary types of residential accommodation. A large number of possibilities could be developed ranging between the very large high-rise flat complex and the single-family occupancy unit.

- The resistance to high-rise residence, particularly among the blacks, most probably arose from the history of its being government-provided, rented and/or rent-controlled. A change to home ownership implied an owners' association in the immediate proximity - rather than a distant body - responsible for control, repairs and improvement.

- The economies of scale of high-density living should not be overlooked. For the same number of residential units the demand for infrastructure, protection, etc., was a fraction of that required for horizontal living. Where development was on a horizontal level, homes - and their residents - were moving away from the existing centres of economic activity, transport networks and the like.

- The system of housing subsidization prevailing in the country had to be reconsidered, and serious attention had to be given to the concept of the once-only "gift". This gift could be a plot of land, which would be an instant asset immediately available as collateral to obtain funds for starting a business, building a house, etc. The donor would save the cost of administering a subsidy over 20 odd years.

- In the final analysis, economic equity was the first priority for decision makers and planners, entailing equal opportunities for an education, a job, etc., for everybody - rather than the guarantee of a house.

It is anticipated that these proceedings will be useful to policy makers, policy shapers and programme administrators, not only in the fields of health and housing, but also wherever problems of affordability, accessibility and equity are experienced.

INA SNYMAN
Editor

AFFORDABLE HEALTH CARE:
Introduction to Parts I and II

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Secretary for Health
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Under the umbrella of the Co-operative HSRC Research Programmes: Affordable Material Provision and Affordable Social Provision it has been possible to identify "on the ground" projects worthy of research, such research being necessary for evaluating the efficiency, effectiveness and economic viability of these programmes. Apart from these factors the element of equity must also be seen as part of the equation.

It is encouraging to health planners and decision makers that such projects are being taken seriously by way of commitment to serious research in order that more affordable options in the provision of social services may be both identified and promoted as viable models. Economists in South Africa today speak of the need for an economic growth rate of some 5-6 % for adequate development of services. With a growth rate of zero per cent such services cannot be developed nor can the present services be maintained. Alternative models should be sought in the light of ever increasing backlogs in efforts to meet the health needs of the country.

In the search for such solutions to create an affordable health-care system, certain basic principles must be recognized. These are, amongst others, to provide essential health-related services for the people and to promote personal responsibility for health care. In response to the realization that governments - irrespective of whether they are First World or Third World ones - can no longer accept sole responsibility for the health-care delivery system the World Bank, in its report *Paying for health services in developing countries*, stated that the conclusions (to the problem of affording costly services) recommended that current policies be substantially reorientated in many countries. The conventional and still growing belief that health care should be totally paid for and administered by governments, needs to be vigorously challenged. Bringing the challenge closer to solutions the World Bank indicated that "the essential theme of new initiatives should be to have users bear a larger share of health care costs".

Adoption of such a theme does not and should not mean that governments renounce their responsibility for implementing strategies to ensure the ongoing improvement in the health status of their peoples and nations. In commending to you the findings

of research in the health field now being reported on under the Co-operative Programme: Affordable Social Provision, it becomes imperative that the recommendations be utilized when establishing innovative policy guidelines for making health provision equitable and cost-effective.

There is no doubt that evaluating programmes scientifically brings credibility to the process of searching for viable options. Thus the evaluation of the community-based health programme in KwaZulu, and the information now available from the University of the Orange Free State's research on alternatives to modern formal care and on self-care are most appropriate for setting the stage for this urgent and critical need to find the way to health care in the South Africa of tomorrow.

PART I: Paper 1

SELF-CARE IN THE CONTEXT OF AFFORDABLE HEALTH CARE

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1. INTRODUCTION: why the interest in self-care?

Self-care is the oldest, the most common, but, until quite recently, also the most unappreciated form of health care. However, since the 1960s policy makers and providers of health services came to view self-care in a new light. It was clear that it could no longer be discouraged and that it could indeed be beneficial to formal health-care delivery.

This change of attitude came about through

- the increase in chronic degenerative diseases, with an accompanying decrease in acute infective conditions. This implied a shift in medical intervention from cure to care, and self-care came to be seen as necessary to increase the coping skills of chronic patients (Dean 1981:673; Levin 1976b:71; Levin, Katz & Holst 1977:32; Pratt 1973:27; Segall & Goldstein 1989:154; Williamson & Danaher 1978:20).

- the increasing demand for formal health care, which put professional care under great pressure. Self-care could help to relieve this pressure (Bradshaw 1977:160; Elliot-Binns 1973:264; Juffermans 1983:226; Levin & Idler 1981:238; Pratt 1973:21; Quah 1977:21; Williamson & Danaher 1978:73, 173).

- the financial crisis experienced by all health-care systems. Authors argue that, while the spiralling cost of formal care has several different causes, increasing self-care behaviour in the population may contribute to lower costs in two ways. Firstly, more self-care, especially self-medication, will reduce the demand for professional care, and secondly, self-care in the form of preventive and health maintenance behaviour will contribute to a healthier population, which will reduce the need for professional care (Abel-Smith 1980:26; Maynard 1986:1164; Roemer 1980:187-188; Williamson & Danaher 1978:73).

The recent interest in self-care is especially visible in the USA and Europe, as manifested by symposia, conferences, special publications, journals, information centres and even self-care development programmes. The World Health Organization decided to promote self-care in all member states as one way of attaining "Health for all by the year 2000". The interest in self-care also spawned a great number of research studies abroad. However the existing knowledge of self-care is still regarded by social scientists as fragmentary and unsatisfactory. Experts emphasize that a descriptive data base on self-care is required to chart the dimensions of self-care behaviour and to determine the forces which shape illness responses (Bush & Osterweis 1978; Bush & Rabin 1976; Dean 1981; Dunnell & Cartwright 1972; Freer 1980; Jackson *et al.* 1982; Lader 1965; Litman 1971; Litman 1974; Mabry 1964; Rabin & Bush 1975).

South Africa's formal health-care system is facing the same financial crisis, and here too self-care is mentioned as a possible health resource which can reduce the costs of health-care provision. The Minister of National Health and Population Development expressed herself as follows in May, 1990: "The health service must be preventive and must promote self-care in the community, which has to take responsibility for its own health."

Very little research on self-care has been conducted in South Africa. Official programmes to develop self-care can, however, not be planned and executed without thorough knowledge of the extent and also the patterns of self-care actions which are currently being carried out in communities. It is furthermore to be expected that South Africa's different population groups will have different self-care patterns. In order to determine the extent and patterns of self-care in a South African community, a survey was conducted during 1989 in the white, black and coloured populations of Bloemfontein.

2. RESEARCH PROCEDURES

The following definition of self-care was used: self-care is the process through which a lay person functions on his own behalf in health promotion and prevention and in disease detection and treatment at the level of the primary health resource in the health-care system (Levin 1976a:206).

The main data-collection instrument was a questionnaire. Interviews were conducted by community members in a random sample of 149 white, 150 black and 137 coloured households in Bloemfontein. In almost all cases the respondent was the "woman of the house", because she is the one largely responsible for or involved with the health of the family.

It was decided to present the data for the three population groups separately because of the differences found in their self-care practices, as well as in their structural or enabling conditions, like income, education and the availability/accessibility of formal health care. These differences are relevant to policy formation and the identification of particularly problematic areas in health-care provision.

3. FINDINGS

The different forms of self-care studied, included preventive behaviour, "doing nothing" about symptoms, different forms of self- medication, non-medication, self-treatment and lay consultation.

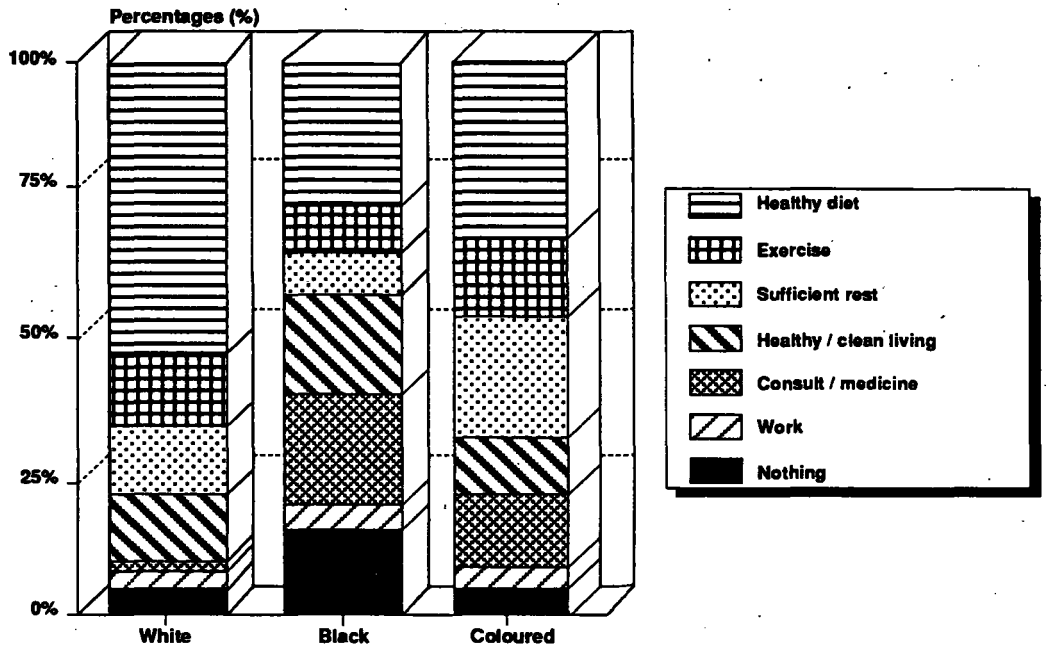
3.1 Preventive behaviour

In response to a question about the most important thing that respondents do to protect their health, all three groups emphasized a healthy diet. The whites and coloureds also emphasized exercise and rest, and the black respondents a "healthy or clean life-style". The largest number of respondents who reported that they did nothing to protect their health was found among the blacks (15 %) (cf. Figure 1).

FIGURE 1: HEALTH-PROTECTIVE ACTIVITIES

	White	Black	Coloured
Healthy diet	53,0	24,7	32,1
Exercise	13,4	8,7	13,9
Sufficient rest	12,8	8,0	21,9
Healthy/clean living	12,1	17,4	10,2
Consult/Take medicine	2,0	20,6	13,1
Work	2,7	5,3	4,4
Nothing	4,0	15,3	4,4

FIGURE 1: HEALTH-PROTECTIVE ACTIVITIES CARRIED OUT BY WHITES, BLACKS AND COLOUREDS, IN PERCENTAGES



In all three groups it was reported that certain foodstuffs were avoided but for different reasons: the white and coloured respondents did so mainly for health reasons and the black respondents due to personal dislike and allergies.

Regarding regular routine physical examinations, 54 % of the white, 86 % of the black and 39 % of the coloured respondents indicated that family members never underwent such medical examinations.

As to regular dental checkups 68 % of the white, 7 % of the black and 33 % of the coloured respondents reported that all family members underwent regular dental examinations.

The percentage of the females under 55 years of age who went for regular (yearly) pap tests was distressingly low: 60 % among the whites, 39 % among the coloureds and 7 % among the blacks.

Some disturbing responses were also found regarding the immunization of family members (cf. Table 1).

TABLE 1: PERCENTAGE OF PEOPLE IMMUNIZED IN THE WHITE, BLACK AND COLOURED GROUPS

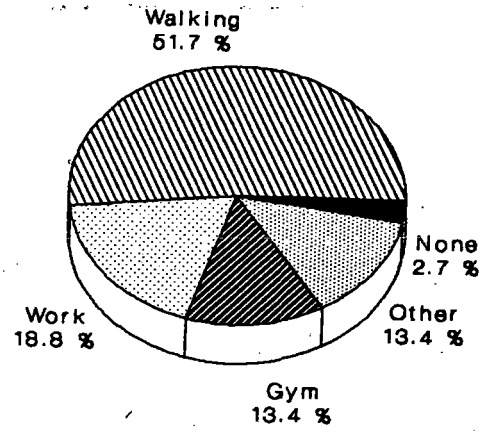
	White	Black	Coloured
Polio	94	37	85
Diphtheria	91	21	82
Whooping cough	89	24	80
Tuberculosis	86	41	84

In the black group many of the respondents had no knowledge of the immunization records of their families (as high as 25 % for diphtheria). This lack of knowledge is in itself meaningful.

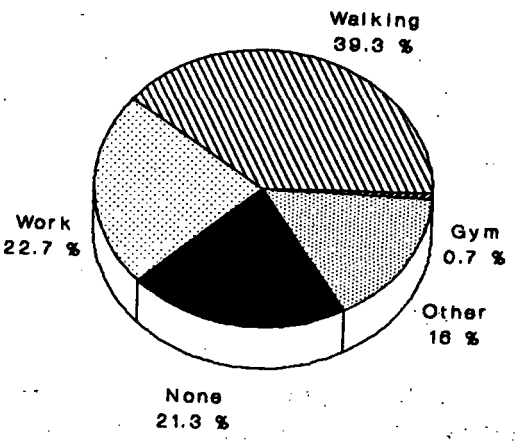
The most important exercise for all three groups was walking, but apart from this, the groups differed regarding their most important forms of exercise: the whites had more exercise options (cf. Figure 2) and participated in almost equal proportions in work[1], gym, and other activities. Only about 3 % of them did not participate in any exercise at all - compared with more than 20 % of the blacks and about 9 % of the coloureds who reported getting no exercise.

FIGURE 2: MOST IMPORTANT FORM OF EXERCISE REPORTED BY WHITES, BLACKS AND COLOUREDS, IN PERCENTAGES

White



Black



Coloured

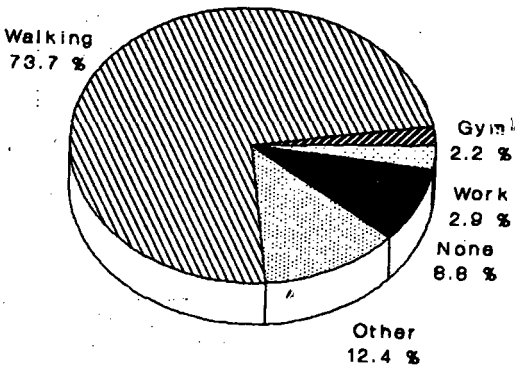


FIGURE 2: MOST IMPORTANT FORM OF EXERCISE

	White	Black	Coloured
Nothing	2,7	21,3	8,8
Walking	51,7	39,3	73,7
Work	18,8	22,7	2,9
Gym	13,4	0,7	2,2
Other	13,4	16,0	12,4

The black respondents seemed to sleep much less than the other two groups, on average only 6-7 hours a night, compared with 7-8 hours for the white and 8-9 hours for the coloured respondents (no table).

3.2 Doing nothing about symptoms

Twice as many white as coloured respondents (36 % as against 16 %) reported that they sometimes did nothing about symptoms. Twenty eight per cent of the black respondents reported sometimes doing nothing. In all cases the most important reason given was that the symptoms were not considered serious.

3.3 Self-medication

Regarding family medicine use during the two weeks preceding the interview, the following was reported regarding total medicine use, both prescribed and non-prescribed, in percentages.

TABLE 2: TOTAL NUMBER OF MEDICINE TYPES USED BY WHITE, BLACK AND COLOURED RESPONDENTS, IN PERCENTAGES

	White	Black	Coloured
None	6	4	28
1-3 types	26	18	42
4-6 types	20	31	17
7-11 types	22	26	9
12 and more	26	21	4
TOTAL	100	100	100

Regarding the use of non-prescribed/self-prescribed (over-the-counter) (OTC)) medicines the reported percentages are depicted in Table 3.

TABLE 3: USE OF NON-PRESCRIBED MEDICINES BY WHITE, BLACK AND COLOURED RESPONDENTS, IN PERCENTAGES

	White	Black	Coloured
None	38	22	57
1-3 types	42	37	33
4-6 types	18	26	6
7-11 types	2	13	3
12 and more	0	2	1
TOTAL	100	100	100

The black respondents showed the biggest volume of medicine use, but most of it non-prescribed medicine: 70,3 % of their total use is OTC compared with 46,8 % for the white and 58,5 % for the coloured respondents.

The three groups showed similar consultation rates, but, compared with the other two groups, a much bigger proportion of white respondents' medicine had been prescribed. This points to different prescription patterns for different population groups.

With reference to the type of medicines used by the respondents during the preceding two weeks, the percentage use of some types was reported as shown in Table 4.

TABLE 4: SOME TYPES OF MEDICINE USED BY THE WHITE, BLACK AND COLOURED RESPONDENTS, IN PERCENTAGES

	White	Black	Coloured
Analgesics	50	51	42
Laxatives	11	33	19
Medicine for sore throat	19	17	11
Medicine for colds	15	42	19
Medicine for flu	7	34	7
Sinus medicine	11	0	0
Sedatives	13	6	3
Vitamins/minerals	22	11	5
Medicine for heart/blood pressure	15	19	11

It is clear that the three groups differed not only in respect of the amounts of medicine used, but also regarding the types of medicine most commonly used.

Apart from the use of non-prescribed (OTC) medicines, another form of self-medication is self-initiated changes in the use of prescribed medicines (which the formal health providers refer to as non-compliance).

The first of these concerns completing a course of prescribed medicine. Sixty-seven per cent of the white respondents reported always doing so, compared with 44 % of both the black and coloured respondents. The most important reason given by those not completing the course was that they "get well before the medicine is used up".

A second self-initiated change from prescribed medicine use involves using left-over medicine at a later stage for the same condition. Forty-four per cent of the white respondents claimed to do so, compared with 38 % in each of the other two groups.

The use of medicine prescribed for one person by other family members constitutes a third kind of deviation from prescribed medicine use. Almost half (45 %) of the white respondents followed this practice, but only 27 % in each of the other two groups did so. The black and coloured respondents seemed to have less confidence in their own ability to make correct diagnoses.

Taking more or less of a medicine than prescribed seemed to occur less frequently: about one-third of the black and coloured respondents admitted to doing so, compared with 21 % of the whites. The importance of following medical instructions in this regard was emphasized by all three groups.

The simultaneous consumption of non-prescribed medicine for the same condition that prescribed medicine is already being taken for, did not occur frequently: 18 % of the black respondents compared with 7 % of the whites and 8 % of the coloured patients admitted to doing so.

The expiry date of medicines does not seem to be important in the black and coloured communities. Thirty-eight per cent of the black and 35 % of the coloured respondents were unaware of such a date on medicines.

3.4 Non-medication self-treatment

The question that was put to respondents was: "Apart from taking medicine to get well, is there anything else that you do?" Two-thirds of the black respondents

answered affirmatively and specified "rest" and "sleep" as the most important forms of therapy. Fifty-six per cent of the white and coloured respondents used non-medication self-treatment. Among the whites "rest" and "exercise" were the most common responses and for the coloureds "rest".

3.5 Consultation

The lay reference network or the consultation of other lay people in the case of illness has been found to be of great importance in studies abroad. Similar findings emerged in this study, especially among the black and coloured respondents.

The spouse or relatives were consulted first during illness by 70 % of the black, 60% of the coloured and 43 % of the white respondents. Forty-two per cent of the whites reported a medical doctor as the first person consulted in the event of illness.

When asked from whom they learnt the most regarding self-treatment the responses were those given in Table 5.

TABLE 5: MOST IMPORTANT SOURCES OF SELF-TREATMENT KNOWLEDGE, BY POPULATION GROUP, IN PERCENTAGES

	White	Black	Coloured
Parents and relatives	40	32	58
Medical personnel	42	45	26
Mass media	13	17	5
Other	5	6	11
TOTAL	100	100	100

Consulting a pharmacist in case of illness was most common among the white respondents: 72 % of them reported doing so at times. Forty-three per cent of the black and 56 % of the coloured respondents said they never consulted a pharmacist (no table).

From the findings it is clear that the three groups differed regarding their self-care patterns. Cultural differences obviously played a role, but when a number of correlates of self-care were studied, it became clear that certain structural factors also differed quite dramatically in respect of the three groups.

3.6 Structural factors influencing health and illness behaviour

A person's level of education will obviously influence his knowledge of health and illness, and also his decisions in this field. It also has implications for the viability of health education programmes.

The educational level of the respondents is presented in Table 6.

TABLE 6: REPORTED EDUCATIONAL LEVEL OF WHITE, BLACK AND COLOURED RESPONDENTS, IN PERCENTAGES

	White	Black	Coloured
None - Std 3	0	18	14
Stds 4-7	8	53	45
Stds 8-10	48	19	34
Std 10+	44	10	7
TOTAL	100	100	100

The income of a family will have an impact on the affordability of formal health care in particular. The monthly incomes of the coloured and especially the black respondents were found to be significantly lower than those of the whites (cf.Table 7).

TABLE 7: TOTAL MONTHLY FAMILY INCOMES OF WHITE, BLACK AND COLOURED RESPONDENTS, IN PERCENTAGES

	White	Black	Coloured
Less than R400	0	35	23
R 401 - R 600	0	25	13
R 601 - R1 000	3	24	30
R1 001 - R2 000	21	11	23
R2 001 - R3 000	21	3	10
R3 000 +	55	2	1
TOTAL	100	100	100

Several different questions were used to ascertain the accessibility and availability of professional care to respondents.

The first of these was on the usual source of medical care for respondents. For most white respondents (89 %) it was reported to be a private practitioner and for most black respondents (57 %) the hospital (only 29 % blacks had a private practitioner as a usual source of care). For 23 % of the coloureds the hospital and, for 50 %, a private physician was the usual source of medical care.

The means of transportation to the usual source of care also differed significantly for the three groups: 94 % of the white as opposed to 12 % of the black and 17 % of the coloured respondents reported having the use of their own car for this purpose. Sixty nine per cent of the blacks and 23 % of the coloureds were dependent on taxis to reach medical care.

For payment of medical care 95 % of the white compared with 27 % of the coloured and 12 % of the black sample reported medical aid membership.

Considerably more black respondents reported experiencing problems in obtaining formal health care: 33 % compared with 10 % of the coloured and 3 % of the white respondents. The problems most frequently mentioned by the black sample were financial (67 %) and transportation (23 %) difficulties.

It is evident that the black and the coloured respondents were worse off regarding the availability and accessibility of formal health services. This will certainly explain some of the differences in self-care practices among the three groups.

4. DISCUSSION

It is clear that a great deal of self-care is taking place in the communities studied. Such self-care can certainly be developed and expanded, which raises the questions as to how, for what, by whom this can be done and what the possible problems involved are.

4.1 Self-care through education

Expanded self-care presupposes an active and educated public, active on their own behalf and educated through a variety of formal and informal channels, in the application of effective health-care practices. The greatest potential for self-care development seems to be in the education of children in schools.

Health education can also be provided to adults by the media, church groups,labour unions, clubs, women's groups, libraries and co-workers. Although the mass media are typically not overly interested in health education because of its lack of news value, these media could be of particular relevance in the self-care education of the black community.[2]

The content of this self-care education should include knowledge of

- the causes of diseases;
- recommended self-treatments for specific conditions;
- how long treatment should be continued;
- how to follow treatment properly;
- the interaction effects and direct toxic effects of medicines;
- when to stop self-treatment and seek professional advice;
- healthy life-styles, disease prevention and health maintenance, and
- self-monitoring of certain chronic diseases.

In addition the newly acquired health-care skills will require periodic review for validity (quality control), improvement through new technology and, for some, frequent practice.

Apart from the public, professional health-care givers will also have to be educated regarding self-care. The challenge lies in changing practitioner and client expectations of the roles of the practitioner as active healer and the client as passive recipient of health care. Health professionals can also assist practically in self-care education by

- assessing current self-care practices regarding their worth;
- establishing technical criteria for the selection of clinical skills appropriate for transfer to non-professionals, and
- redesigning (or inventing new) monitoring, diagnostic and treatment technology

in terms of its self-care application (Bush & Rabin 1976; Levin 1976a; Levin 1976b; Levin 1977; Levin, Katz & Holst 1977; Williamson & Danaher 1978).

4.2 Planning for self-care

Any self-care development programme also has far-reaching implications for health planning. In current planning only professional health care is taken into account. Existing health planning furthermore has an inadequate conceptual framework, based on assumptions like "health is life's highest goal". This ignores the fact that people involve themselves in voluntary risk taking, and that they make choices. Further erroneous assumptions are that professional intervention can produce health, that non-compliance necessarily constitutes destructive behaviour and that the role of the lay person is supplementary to professional care providers.

Planning for self-care will have to be based on the assumption that lay health care is the primary resource and that professional care is relevant only for some residual secondary but mostly tertiary care.

Resources will have to be allocated to public education in health, but also to the strengthening and expansion of lay competence in health care. In this regard the lay preference for additional skills must be taken into account.

Health administrators are then faced with certain tasks:

- estimating community needs for self-care education;
- deciding what additional lay education will be needed;
- deciding on incentives that might encourage the assumption of self-care responsibilities by the population;
- formulating criteria for lay training and eligibility;
- establishing self-care limits;
- designing ways and means for establishing lay-professional "partnerships" in health;
- deciding on the precise and cost-effective allocation of professional health services, and

- deciding who takes responsibility when "something goes wrong".

Research will accordingly be needed on specific self-care interventions and on designing, implementing and evaluating long-term self-care education programmes (Levin 1976b; Levin, Katz & Holst 1977).

4.3 Potential problems

There may well be a number of problems or dangers inherent in a self-care programme, which should also receive consideration during the planning phase:

a) Self-care may become a more sophisticated form of "blaming the victim", of accusing people who are too poor or too uneducated to participate in self-care of "causing" their own ill health. Furthermore, through self-care the individual may be made responsible for things which may not be preventable at the personal level: environmentally produced disease is unlikely to be dramatically affected by self-care.

b) There is a danger of creating a "second-class health service", as self-care may be used as a justification for decreasing the level of formal services provided. Self-care should not mean that the authorities abdicate some of their responsibility regarding health services. A related question is whether self-care can be "imposed" on society as a whole; some people may prefer to remain passive and dependent.

c) A problem that already has been hinted at is that of the resistance of the professions to relinquishing some of their dominance in health care. If they accept greater lay health care, there is the danger that self-care may be medicalized: that a skill hierarchy will be established, which would convert the lay resource into a new professional category. Professional people could try to enforce unilateral decisions on what skills should be transferred to lay people, and how this should occur.

d) Formal health services are not equally available and accessible to South Africa's different population groups. The different groups also do not have comparable enabling conditions, such as income or medical aid facilities, or even education and level of medical knowledge. In addition there are different cultural definitions of health and illness. A uniform self-care development programme for all groups would therefore not be viable. One should, however, take care that differential self-care development programmes do not perpetuate structural inequalities in health care.

e) A final problem is that it is by no means certain that a society that is well versed in self-care will result in an overall cost reduction in health-care provision. There is no solid base for predicting how economic benefits will be distributed among consumers or the components of the medical complex.

Self-care should not be looked at as a phenomenon benefiting health care only - it can also have intrinsic benefits for people in the sense of giving them increased autonomy and a feeling of having greater control over a part of their lives.

NOTES

1. Many respondents felt that they got "all the exercise needed" through work.
2. In the study 44 % of the black respondents cited the mass media (radio, TV, popular magazines)as their most important source of health information and knowledge.

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PART I: Paper 2

THE ROLE AND UTILIZATION OF TRADITIONAL HEALERS IN THE TOWNSHIP OF MANGAUNG

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1. BACKGROUND AND INTRODUCTION

During September 1987 the project *Community-based health care: sociological studies in Bloemfontein* became a project of the HSRC Co-operative Programme: Affordable Social Provision. In accordance with the co-operative programme, the point of departure of this project is that community health care - implying health care by the community for the community - often signifies a more inexpensive, more accessible, more effective form of health care. To ascertain the community potential/ resources in Bloemfontein, the most important facets of health-care delivery are addressed in five sub-projects. In the case under discussion the subject matter is that of traditional medicine.

The current interest in applied research on traditional healing systems is unparalleled in the history of public health and reflects a world-wide impetus towards making health care more accessible, affordable and culturally relevant for all people. The renewed interest in indigenous medicines is a response to the primary health-care movement initiated by the World Health Organization with the ultimate aim of "health for all".

The lack of health services to provide for the most basic health needs of Third World countries, despite the efforts of governments and international organizations, is well known. Contrary to this, traditional medicine is an ever present reality, both for rural and urban peoples - an indigenous system serving the health-care needs of the majority of Africans. The utilization of traditional medicine deserves consideration because of the approval of the WHO on the one hand, and the extent of acceptability of this type of medicine for a large proportion of the black population on the other.

The twofold objective of the study on which this paper is based, was to determine

- the role and utilization of traditional healers in Mangaung, a township near Bloemfontein, and

- the possibility/desirability of linking the modern and traditional healing systems, with a view to estimating whether or not traditional health care - alone or together with modern health care - provides an affordable alternative health-care option.

2. METHODS AND FIELD PROCEDURES

In order to obtain the necessary data, different methods were triangulated. A quantitative survey was conducted in Mangaung during May 1989 by means of an interview schedule. This township has a population of approximately 120 000.

In addition to biographical details, the following main dimensions were addressed in the interview schedule:

- Conceptions regarding disease etiology;
- The utilization of the services of the different types of medical facilities and practitioners;
- Choice of facility and/or medical practitioner for certain diseases/conditions, and
- Attitude towards connecting traditional and modern medicine.

Qualitative data were obtained by means of unstructured interviews with traditional healers, as well as by means of interviews with well-informed persons. The interviews with traditional healers were held over a period of three years on aspects such as their training, *modus operandi*, professional associations and the manpower situation. Three types of traditional healers are described in this paper: the herbalist, the diviner and the faith healer. Herbalists and diviners both treat patients with herbs and other traditional medicines, but diviners are distinguished from herbalists because of their "... specially cultivated relationship with spirits and their attributed divinatory power" (Green & Makhubu 1984:1072). The faith healer/prophet is in actual fact a neo-traditional healer who divines and cures within the framework of the African Independent Churches (AIC). This implies a syncretism. It should however be borne in mind that this analytical distinction does not always apply in practice, so that for example a diviner may also be a faith healer.

3. RESULTS

In respect of most of the variables, the sample (N = 207) corresponded to census data for the black population of Bloemfontein. This applied to the variables sex, age,

ethnic composition and religious denomination, while a bias occurred with regard to level of education and occupation. This could be attributed to the fact that respondents were not selected randomly in the selected households. Anyone over the age of 25 who was willing and able to participate was included in the sample. Under these circumstances the interviewers (students) could have opted for respondents with the highest level of education and accordingly the highest vocational categories.

The sample consisted of relatively young persons (54,1 % were 45 years and younger) with a relatively high educational level (36,6 % had Std 8 and higher). The majority of the respondents were of Sotho/Tswana descent (76,8 %), and 73,3 % had been living in Mangaung all their lives. More than half (65,2 %) belonged to European-oriented mission churches. Fifty-seven per cent described their life-style as the same extent traditional and Western, 29,5 % maintained a Western life-style and 13,5 % a traditional one.

In order to meet the objectives set out earlier, modern and traditional medicines were juxtaposed and evaluated in terms of Coe's (1978:413) scheme of five prerequisites for health-care systems:

- Availability
- Accessibility
- Affordability
- Acceptability
- Accountability

Given the particular theme of this study, the emphasis is on traditional medicine.

3.1 Availability of traditional health care

Owing to lack of official statistics, the manpower situation in the traditional sector can only be estimated: the national healer-population ratio at 1:200 and in Mangaung at 1:160 (Pretorius 1990:60-61). This is much more favourable than the doctor-population ratio in the modern sector.

3.2 Accessibility of traditional healers

It has often been stated that traditional healers are accessible because, compared with modern medical practitioners, they have the advantage of cultural, social, psychological and physical propinquity. Considering the healer-population ratio, physical

propinquity is indeed a reality, although distance does not seem to act as a deterrent when seeking the services of a traditional healer. As a matter of fact, a person often prefers to consult a healer in another area, on the one hand because the client expects the traditional healer to identify the problem without prior information, and on the other because the person (neighbour?) who wishes to harm him, might consult the same healer should he live nearby.

In Table 1 responses to the question as to the consultation of traditional healers not living in Mangaung are indicated.

TABLE 1: CONSULTATION OF TRADITIONAL HEALERS NOT LIVING IN MANGAUNG

Response categories	Yes	No	N
	%	%	
Consultation of diviners elsewhere	54,2	45,8	24
Consultation of herbalists elsewhere	45,0	55,0	20
Consultation of faith healers elsewhere	18,2	81,8	44

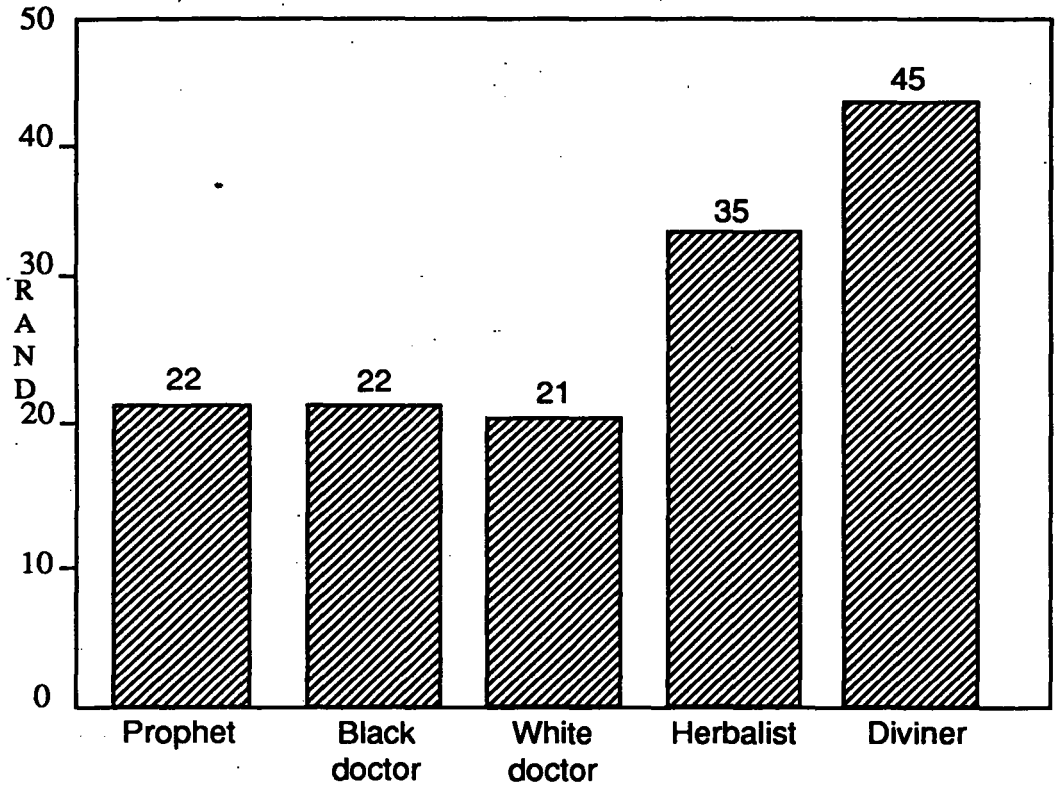
This finding confirms that patients prefer to consult healers (diviners and herbalists) elsewhere, but probably because faith healers are more acceptable, they do not have to visit them elsewhere.

3.3 Affordability of traditional medicine

It is often assumed that traditional medicine is inexpensive and affordable. This may have been the case some decades ago, but according to several studies conducted in the past decade and confirmed in this study, the cost of seeking treatment from the traditional medical sector in present-day Africa is often more expensive than modern health care.

The findings in respect of the fees of medical practitioners in Mangaung are reflected in Figure 1.

FIGURE 1: CONSULTATION FEES OF MEDICAL PRACTITIONERS



It should be noted that respondents were not restricted to a specific period of time before the survey. A consultation could therefore have taken place at a much earlier date. However the purpose of the question was not to ascertain the exact consultation fees of the different medical practitioners, but only to facilitate the drawing of comparisons between the various medical practitioners. Although the consultation fees of herbalists and diviners are considerably higher than those of modern medical practitioners and faith healers, utilization of the services of these healers by health-care consumers is not influenced negatively by this cost factor.

3.4 Acceptability of traditional healers

With regard to conceptions of disease etiology, it was found that in general a naturalistic etiology prevailed. This points to a change in respect of traditional etiologies where conceptions of disease etiologies are personalistic in nature (Foster 1976). In accordance with their etiological conceptions, the respondents preferred modern medical facilities and practitioners. This fact however does not serve as a disqualification for consulting traditional healers: 35,6 % of the respondents still

frequently turned to these practitioners in case of disease or misfortune. Of the respondents who utilized the services of traditional healers, 9,7 % consulted the herbalist, 11,6 % the diviner and 21,3 % the faith healer.[1] The higher utilization frequency of the latter may be ascribed to the faith healer being more acceptable through association with the church. As in other studies, it can be safely assumed that for several reasons there was a fair amount of underreporting regarding the question as to the consultation of traditional healers.

The data revealed a relation between the consultation of traditional healers and various variables, for example ethnicity, extent of westernization and age. As was to be expected older persons with traditional life styles and low education levels turned out to be the largest consumers of the services of all three types of healers.

The extent of acceptability of traditional healers can also be inferred from the extent of importance ascribed to each type of healer. In this regard respondents were asked to indicate the importance of the ancestors, God and the church in addition to that of the traditional healers. The following responses were received:

TABLE 2: THE IMPORTANCE TO RESPONDENTS OF TRADITIONAL HEALERS, ANCESTORS, GOD AND THE CHURCH

Response categories	Importance			
	Important	Uncertain	Not important	No response
	%	%	%	%
Church	96,6	1,4	2,0	-
God	92,8	1,0	2,9	1,4
Prophet	39,1	18,4	39,6	2,9
Ancestors	31,9	18,4	40,1	9,7
Herbalist	31,9	15,5	48,8	3,9
Diviner	16,4	22,7	56,0	4,8

These responses are in accordance with the typification of the research group as being predominantly Christian with a Western life-style. However, when the extent of importance is compared with the actual consultation of traditional healers, it becomes apparent that in each case importance is higher than utilization frequency: the herbalist was regarded as important by 31,9 % as against 9,7 % who consulted him/her, 39,1 % regarded the prophet as important, as against 21,3 % who consulted

him/her, while 16,4 % regarded the diviner as important, as against 11,6 % who consulted him/her. This leaves one with the impression of underreporting. Then again the need for health care was smaller because of the relatively young average age of the research group.

A last indicator of the acceptability of traditional medicine is the attitude of the research group towards these healers as it was reflected in responses to the two statements.

TABLE 3: RESPONSES TO THE STATEMENTS "TRADITIONAL HEALERS SHOULD BE BANNED" AND "MEDICAL DOCTORS SHOULD GET TO KNOW MORE ABOUT TRADITIONAL HEALERS"

Statements	Response categories					
	Agree strongly	Agree	Uncertain	Disagree	Disagree strongly	Row total
	%	%	%	%	%	%
Traditional healers should be banned	5,0	4,0	27,4	40,8	22,9-	100,0
Medical doctors should get to know more about traditional healers	29,3	47,3	17,6	4,4	1,5	100,0

Only 9 % agreed/agreed strongly that traditional healers should be banned, while 63,7 % disagreed/disagreed strongly. Almost 77 % were of the opinion that medical doctors should get to know more about traditional healers.

The above, together with the high traditional healer-population ratio, brings the researcher to the conclusion that this type of health care still enjoys a fair amount of acceptability in Mangaung.

3.5 Accountability of traditional medicine

The prerequisite of accountability specifies that "... providers are responsible for

assuring the quality of services rendered, both technically and organizationally, to monitor continually the scientific competence and the continuity of services provided" (Coe 1978:413). It is obvious that this prerequisite can only be realized when the traditional medical system obtains a different legal position from the one laid down in 1974.

3.6 Consultation of traditional healers in Mangaung

Because of the small number of respondents (N = 73) who consult one of the three types of healers, the findings are presented descriptively only. Identical questions with respect to each type of healer were put to all respondents in order to make comparisons.

An analysis of the data in Table 4 points to the following:

- Men and women consult traditional healers to the same extent.
- In the case of all types of traditional healers, they are consulted more frequently by people in the higher age category than those in the younger age category.
- The majority of those who consult traditional healers belong to the category "Low level of education".
- The faith healer is consulted to the same extent by both the Sotho/Tswana group and the Nguni group. The Nguni group seem to prefer to consult the diviner and the Sotho/Tswana group the herbalist.
- The majority of the respondents who consult traditional healers belong to the non-orthodox AIC (60 %). Next are members of the orthodox AIC with 56,5 %. Those of the European-oriented mission churches account for only 35,6 %.
- Those respondents with a traditional life-style consult all three types of traditional healers to a greater extent than those with a Western life-style or one which is to the same extent Western and traditional.

TABLE 4: CONSULTATION OF TRADITIONAL HEALERS ACCORDING TO SEVERAL VARIABLES

Variable	Traditional healers		
	Diviner (N = 24)	Herbalist (N = 20)	Faith healer (N = 44)
	%	%	%
Sex			
Male	12,4	10,3	19,8
Female	10,9	9,3	22,9
Age			
45 years and younger	8,0	5,5	18,9
Older than 45 years	15,8	14,9	24,5
Level of education			
Low *	15,1	11,2	22,2
High **	4,1	5,6	19,7
Ethnic group			
Sotho/Tswana	8,2	10,9	21,5
Nguni	23,3	7,0	21,4
Religious denomination			
European-oriented mission church	9,6	5,3	20,9
Orthodox AIC	17,8	17,8	24,4
Non-orthodox AIC	13,0	21,7	22,7
Extent of westernization			
Traditional life-style	21,4	14,8	28,6
Western life-style	1,6	5,1	11,5
To the same extent traditional and Western	14,4	11,0	25,0

* Std 8 and lower
** Higher than Std 8

The consultation frequency for respondents visiting traditional healers for the 12 months preceding the survey is set out in the following table and is self-explanatory.

TABLE 5: FREQUENCY OF CONSULTATIONS WITH TRADITIONAL HEALERS IN THE PREVIOUS 12 MONTHS

Consultations	Traditional healers		
	Diviner	Herbalist	Faith healer
	%	%	%
1-2 times	50,0	50,0	52,3
3-4 times	29,2	15,0	15,9
5-10 times	8,3	5,0	9,1
More than 10 times	12,5	10,0	15,9
Not once	-	20,0	6,8
TOTAL	100,0	100,0	100,0

3.7 The attitude of the inhabitants of Mangaung regarding a link between modern and traditional medicine

Not only was it important to ascertain the role and utilization of traditional healers in Mangaung, but in the light of the informal dual utilization patterns, it was necessary also to determine how the inhabitants actually viewed any kind of formal collaboration between the modern and traditional sectors. This was established from responses to six relevant statements, summarized in Table 6.

Although there is a reasonably positive attitude towards referral of patients to traditional healers (38,8 %), the response is much more positive regarding referral by a traditional healer to a medical practitioner. Nevertheless, the responses demonstrate clearly that linking these two systems is regarded as desirable by the inhabitants of Mangaung. In the light of these findings attention is next focused on the issue of a connection between the two medical sectors.

TABLE 6: RESPONSES TO STATEMENTS REGARDING LINKING MODERN AND TRADITIONAL MEDICINE

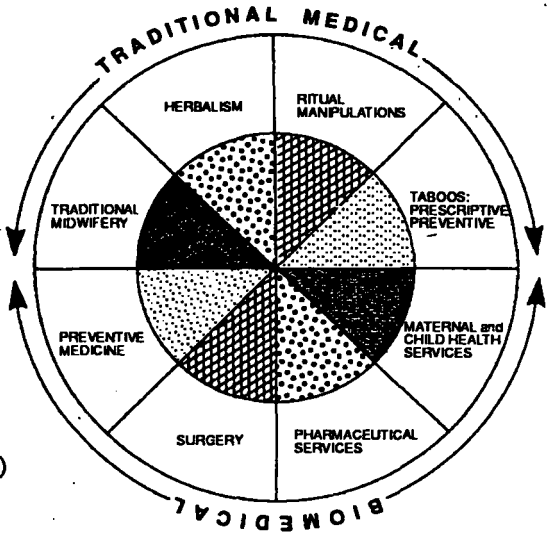
Statement	Response category					
	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree	Total
	%	%	%	%	%	%
1. Traditional healers should be allowed to work in the hospital like medical doctors	15,0	27,5	33,5	15,0	9,0	100,0
2. Medical doctors should refer patients to traditional healers in case of physical illness	10,4	28,4	30,8	15,9	14,4	100,0
3. Medical doctors should be more positive towards traditional healers	16,4	38,3	28,9	10,4	6,0	100,0
4. Traditional and medical healers should never work together	10,4	18,3	27,7	31,7	11,9	100,0
5. Traditional healers should refer patients to medical doctors in case of physical illness	26,6	44,8	24,1	3,4	1,0	100,0
6. Traditional healers should acquire some of the skills of medical doctors	24,1	45,3	22,7	4,9	3,0	100,0

4. CONNECTING TRADITIONAL AND MODERN MEDICINE

While anthropologists and professional health practitioners for many years were of the opinion that traditional and modern medical systems were rivals, there was, for the majority of patients, no inconsistency in the dual utilization of the systems (Jansen 1983; Mankazana 1979; Spring 1980; Yoder 1982). This was possible because Africans have a dualistic outlook on life which accommodates both the conspiracy theory of witchcraft and the "scientific" theory of modern medicine. The utilization of Western medical services by non-Westerners does not mean that their own traditional ideas have been abandoned. According to Foster and Anderson (in Jansen 1983:14) "... traditional peoples show great ingenuity in reconciling scientific medical practices with their own etiological systems". **This phenomenon of dual utilization is significant because it provides a basis for tying traditional and modern medicine.**

It was the WHO, especially after the Alma Ata Conference in 1978, who provided the necessary impetus towards liaison between traditional and modern medicine. It was their firm belief that there was sufficient commonality between the two systems not only to make linking possible, but also to integrate the two systems. In particular it is the collective, community-oriented activities of traditional medicine that correspond with the community-oriented primary health-care programme of modern medicine: "From the former there come health precepts such as balance, rhythm, coolness, purity, and plenitude, and from the latter essential prerequisites of these

FIGURE 2: ANALOGICAL MODEL OF THE BIOMEDICAL/TRADITIONAL MEDICAL RELATIONSHIP



Source: Spring (1980:59)

states such as adequate and clean water, infant care, sewage facilities, adequate nutrition, and good housing, all organized within local communities (Janzen quoted by GREEN 1988:1126).

The scheme in Figure 2 can be used to conceptualize the conditions that need to be met when the issue of co-operation between the two medical systems is raised.

From the above it is clear that each aspect of the traditional medical system can be linked to the modern medical system and *vice versa*. So the counterpart of herbalism is to be found in pharmaceutical services, while traditional midwifery corresponds to the area of maternal and child health. The surgical aspects of modern medicine correlate with ritual manipulation, examples being bone-setting, blood-letting and foreign object extraction. The final category, namely traditional taboos which aim at prescribing appropriate health behaviour and prohibiting actions which may threaten health, corresponds to preventive health measures in the modern medical system (Harrison & Ulin quoted by SPRING 1980:58-59).

In order to create a new syncretic type of national health-care delivery system, traditional medicine can be made relevant and its efficacy increased by means of either complementarity or integration.

4.1 Complementarity/Co-operation

When the relation between traditional and modern medicine takes on this form, it means that the two systems co-exist but that they are independent of each other, each respecting the unique character of the other. Co-operation implies a better working relationship between the two sectors: appropriate referrals between the sectors occur regularly, certain skills of the traditional healer are upgraded, while the cultural sensitivity of modern health-care practitioners is enhanced (Green & Makhubu 1984:1077). It is however imperative that the ultimate goal of co-operation between modern and traditional medicine should be improvement in the quality of patient care and should not merely be undertaken "... to increase the understanding of practitioners of the 'alternatives' available or to serve as a stop-gap measure until biomedical care can be expanded" (Yoder 1982:1856).

4.2 Integration

The WHO (1978:16) describes effective integration as a synthesis of the merits of traditional and modern medicine by implementing modern scientific knowledge and techniques. The underlying assumption is that the characteristic skills of certain traditional healers can be adapted effectively in order that these healers receive appropriate training to be able to cope with certain modern practices and to transmit

certain modern medical beliefs. The best example in this regard is the successful integration which has been accomplished with traditional midwives in various countries. The integration of herbalists has often also been suggested.

4.3 Problems relating to a successful linking of traditional and modern medicine

For any linking programme to be successful, it is necessary for four specific groups to co-operate, namely the authorities responsible for health-care delivery, the Western-trained health-care workers, the traditional healers and the clients. While all of these parties are faced with certain dilemmas, it is possible for these problems to be surmounted by co-operation to the mutual benefit of all concerned.

For many African governments such an endeavour could make it possible for them to extend health services in a relatively inexpensive way by utilizing existing community resources. By uniting the indigenous facilities (traditional healers) and the hospital system of Western practitioners it could become possible to provide a nation-wide service. Better and more frequent communication between Western-trained health practitioners and traditional healers could result in health-care delivery which is more culturally relevant and appropriate. In the event of successful linking of the two systems, the position of traditional healers who are a mixed group with no standardized training and no official *locus standi*, would be adjusted dramatically.

Despite the possible merits, certain problem areas cannot be ignored. Four such potential stumbling blocks will be dealt with.

4.3.1 Acceptance of traditional medicine by governments

The attitude of governments towards traditional medicine varies from *laissez-faire* to outright rejection, as was the case in Mozambique and Tanzania. Nevertheless, since the collapse of colonialism the African sociocultural identity has slowly been revived and with it traditional medicine as part of that cultural heritage. Notwithstanding the renewed interest, this has not resulted in concrete policy. Only four of the 25 countries in the African subregion for which data are available, have passed legislation in this regard.

4.3.2 Mutual acceptance of traditional and modern medical practitioners

While most modern medical practitioners appear to be indifferent to traditional

healers, there are those who ardently advocate their utilization. Modern medical practitioners are frequently suspicious, even apprehensive of the traditional healer because the latter does not possess "scientific" knowledge and skills. Those who are opposed to traditional medicine are those who come into contact with the failures of traditional healers and have to rectify such failures. Traditional healers often view any contact with either modern medical practitioners or officialdom in terms of legal proceedings, taxation, humiliation or loss of their cultural heritage. It is also true that traditional healers are anxious to change their image as "primitive witch-doctors". It would seem that prestige and recognition are the fundamental incentives underlying traditional healers' willingness to co-operate.

Research findings as to the attitudes of doctors, nurses, pharmacists and other paramedic personnel regarding co-operation are extremely fragmentary and mostly dated. Research done by Ngubane (1981:362) led her to conclude that practitioners of Western medicine in South Africa are generally antagonistic towards traditional healers, while the latter regard Western medicine as complementary to their own medicine, and even as an alternative under certain circumstances.

The degree of acceptability of traditional medicine by modern medical practitioners has a bearing on the quantifiable, rational aspects of traditional practice. For this reason herbalists are more acceptable than diviners or faith healers. Sometimes co-operation is viewed by modern medical practitioners as referral to them by traditional healers and not the other way round.

It is obvious that such an evaluation of the present attitude and intellectual position of Western medical practitioners *vis-à-vis* traditional medicine is imperative because no government would consider co-operation or integration if doctors still disparage traditional medicine.

4.3.3 Legitimizing the non-rational aspects of traditional medicine

As traditional medicine is governed by a tradition of secrecy, it is to be expected that healers will be hesitant to divulge secret practices, recipes of extracts from medicinal plants and mystic formulae. In addition even the biomedically acceptable part of traditional medicines and practices is sometimes based on a belief in the supernatural. The issue of whether such healing methods should obtain official recognition or be incorporated into health-care delivery comprises many unique and difficult problems (Stepan 1983:311-312). In some cultures supernatural forces are considered to be of such immense importance in the general conceptions of health and illness that religious rites, invocations, magical methods and all forms of sorcery constitute integral parts of traditional medicine and are indeed applied to the advantage of

patients. On the other hand, the possibilities of fraud and of the abuse of such methods are apparent.

Health administrators should make clear distinctions between harmless and harmful practices, rites and beliefs when they are to determine which healing methods should be incorporated within a proposed synthesis framework.

4.3.4 The demystification of the traditional healer role

Although the meaningful utilization of the traditional healer in a national health-care system implies that this role should be demystified, certain negative implications cannot be ignored. According to Rappaport (1980:92) demystification entails a process by means of which the critical elements which project the traditional healer's image, are broken down "...: if the 'props' upon which his image rests have been neutralized or destroyed". Staugard (1986:67) is even more emphatic stating that while to modern medicine an integration of itself with traditional medicine might imply short-term advantages, in the case of traditional medicine it would most probably act as a kiss of death. Green and Makhubu (1984:1077) fear that traditional healers will only become second-rate paramedical workers and that they will not be able to fulfil their important societal function which comprises social, psychological, mental and somatic health dimensions.

5. CONCLUSIONS OF THE STUDY

5.1 The future role of traditional healers

"Het idee dat hekserij of toverij iets archaïsch is dat vanzelf zal verdwijnen met de modernisering en de 'Entzauberung der Welt' is immers bijzonder hardnekkig in het Westen" (Geschiere & Van Wetering 1989:150).

It is a widely held conception that an increase in the level of education, the creation of a scientific climate, as well as the provision of the necessary health-care services will result in the elimination of traditional medicine.

Several questions however immediately come to mind:

- How long will it take to provide sufficient quality health care for all in South Africa?
- Can traditional beliefs be destroyed, or will they survive in a modified form?

- To what extent are people able to dissociate themselves from the traditional cosmic model?

I have no doubt that as long as traditional beliefs survive/persist, Africans will need traditional medicine in the case of illnesses that are defined and explained in a personalistic way. All indications are that there is a significant number of black people who still adhere to these beliefs and who still turn to traditional healers. As indicated in paragraph 3, 29,5 % of the respondents in Manguang indicated that they had a Western life-style, and 13,5 % that they had a traditional life-style. The significant number, however, is the 57 % who regarded their life-style as being to the same extent both traditional and Western. Given the perceptions they had regarding their life-style and the critical problems relating to education facilities, it is doubtful that even they will be able to disengage themselves from their traditional connectedness in the foreseeable future. Many of them still regard the ancestors as important, or think that traditional healers should be permitted to work in hospitals.

If the principle is accepted that what the therapy patients receive, should be in accordance with their culture and world view, traditional medicine cannot be phased out in the near future. As a matter of fact, should this occur, an essentially psychological vacuum would be created for those who believe in and benefit from it (Glasser 1988:1463).

5.2 The necessity for data regarding linking modern and traditional medicine

According to Pedersen & Baruffati (1989:493) "... the proposals for the 'integration' of medical systems have been launched from a very precarious platform based on unproven premises, in often contradictory language about the efficacy of the different medical systems, or simply without sufficient information at all".

As early as 1976 one of the main recommendations made by the WHO in Kampala was that more research should be undertaken regarding traditional medicine before integration and/or co-operation could be meaningfully discussed. After 15 years the study of connecting traditional with modern medicine is still in its infancy. There are very few examples on the basis of which the success or failure of future co-operation can be predicted. More information is necessary about the attitudes of traditional and modern medical practitioners towards each other. More research needs to be done on traditional beliefs, practices and therapeutic agencies, as well as patient consultation patterns to be able to guide the planning and effective co-operation between the divergent systems (Ulin 1980:9). Information is required also on the efficacy of individual programmes, the costs, benefits and disadvantages relating to liaison in

both the short and the long term. Potential sources of conflict should also be identified (Oppong 1989:611). If we fail to become as well informed as possible with regard to the above matters, then, according to Ngubane (1981:365) "... yet another disaster of development could all too easily result".

It was therefore firmly established by this study that

- a significant proportion of the African population adhere to traditional beliefs regarding health, illness and care;
- these people consult traditional healers irrespective of the relatively high cost factor;
- they are positive towards collaboration between modern and traditional medical sectors, and
- urgent attention should be given to ways of incorporating traditional medicine in a national health-care delivery system.

Given the possible options for connecting traditional to modern medicine, the researcher is of the opinion that integration of the two systems would be potentially detrimental to both. Such a syncretism is also not likely to develop because of the irreconcilability of the fundamental points of departure of the two systems. Conversely, co-operation, characterized by mutual respect and a willingness to learn from each other, could facilitate the transfer of important values to both systems and eventually the universal goal of "health for all" could be realized. Because the new course upon which health care was set since the Alma Ata Conference on primary health care in 1978 is community-based, it has the potential to be more affordable, more accessible and more efficient.

"But nothing will change unless or until those who control resources have the wisdom to venture off the beaten path of exclusive reliance on biomedicine as the only approach to health care ... . In a free society, outcome will depend upon those who have the courage to try new paths and the wisdom to provide the necessary support" (Engel 1977:135).

NOTE

1. These percentages do not add to 35,6. Although 73 of the respondents consulted traditional healers, overlapping occurs in that six consulted both a diviner and a herbalist, four consulted both a diviner and a faith healer, two consulted both a herbalist and a faith healer and one respondent consulted all three types.

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PART II: PAPER 1

PROCESS EVALUATION: PERSONNEL DIRECTLY INVOLVED IN THE CBHP IN KWAZULU

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1. INTRODUCTION

The Community-Based Health Programme (CBHP) run by the KwaZulu Department of Health forms part of the national population development policy and is adapted to local needs and resources. Each branch of the CBHP functions within an established health ward and is an extension of the Primary Health Care service which the hospital offers. The Amatikulu Centre of the Department of Health is responsible for the training of CBHP staff. The community served by a branch of the CBHP falls under the jurisdiction of a tribal authority. The community, which shares a common language and culture, together with the *indunas* is involved in decision making on health and other matters.

The Department of Health requested the Committee of the Co-operative Research Programme: Affordable Social Provision at the Human Sciences Research Council to evaluate the CBHP. The committee commissioned two teams of researchers from the HSRC, namely one from the Institute for Communication Research and one from the Institute for Sociological and Demographic Research to do the research (both currently part of the Group: Social Dynamics). A research committee consisting of the researchers, a representative of the Department of Health, and an advisor from the University of Natal Medical School defined the scope of the research.

Four health wards were selected for the main study, and these comprised an older, larger branch of the CBHP; an older, smaller one; a newer, larger one and a newer, smaller one.

The research was divided into four substudies, namely:

- Process evaluation: personnel directly involved in the CBHP in KwaZulu (Paper 1);
- Process evaluation: members of the formal health teams in KwaZulu (Paper 2);

- An evaluation of the Community Health Workers (CHWs) at the local level interface (Paper 3);
- An evaluation of a flip chart used in health education in the CBHP (Paper 5).

Although recommendations will be made in all the papers, the combined recommendations for the improvement of the CBHP (resulting from the first three substudies) will be presented in Paper 4. The fourth substudy then becomes Paper 5.

The aim of the first part of the research (Paper 1) was to study the effectiveness of the programme by interviewing members of those categories of workers who were directly involved in the execution of the programme in the community: supervisors of the Community Health Facilitators (CHFs), CHFs themselves, CHWs and Community Health Committee (CHC) members.

2. SAMPLES

In each of the four health wards the samples were drawn in this way: Each health ward had only one registered nurse who supervised the CHFs and who was included in the survey. In one of the wards the supervisor had been fulfilling the function for only two months. It was therefore decided to have an interview with the previous supervisor as well.

The CHFs, who are enrolled nurses with additional training, supervise the CHWs. Two of the wards had only one CHF each; another had two of whom one had not been working there for very long and was therefore excluded, and in the fourth ward one of two CHFs was selected at random.

In each health ward five CHWs were randomly selected.

CHCs whose members are selected from and by the community, supervise and support the CHWs. Five CHC members were randomly selected in each health ward. In two of the wards one of the selected members was prevented from participating in the project by bad weather conditions and transport problems.

3. DATA COLLECTION

The data was collected by means of individual interviews in English, with the supervisors of CHFs and with the CHFs themselves. Individual and small-group

interviews with the CHWs and CHC members were conducted by trained interviewers in Zulu.

Since the data collected were of a qualitative nature a basic interview schedule which allowed for probing was developed and adapted for each category. The schedule was based on the WHO strategies for the improvement of CBHPs (World Health Organization (WHO) 1989: 5-43).

4. FINDINGS

The findings will be discussed under the following headings:

- The CBHP and the community
- The CBHP and the tribal authority
- Role of the supervisors of the CHFs
- Role of the CHFs
- Role of the CHWs
- Role of the CHCs
- Role of the formal health-care personnel
- Role of the Amatikulu Centre
- Conclusion

4.1 The CBHP and the community

The respondents described the CBHP as a mainly preventive and promotive service with a strong emphasis on community involvement. Continuity of the service is largely ensured by the fact that as yet there is a low turnover of CHWs and no turnover of CHFs. The CBHP also co-operates with various other individuals and institutions concerned with population development and health.

There is still a great need for the community to take responsibility for health-related matters. Preventive and promotive actions are increasing owing to the presence of the CHWs and the willingness of the community to co-operate, but the community to a large extent still considers authorities, for example the hospital, to be responsible for their health. The community expects the CHWs to play an extensive supportive role, for instance accompanying them to the hospital. The members of the community in general tend to be poor attenders of meetings and are not always well informed of the CBHP and can therefore not contribute sufficiently to its effective functioning. The community also needs constant motivation and reinforcement of new health concepts.

The general community needs as perceived by the members of the CBHP and the expressed needs of the community as reported by respondents included:

- Development of a more effective infrastructure, for example better roads;

- Safe water supply and sanitation;

- Improvement of living standards by means of better education and adult education, job creation and better nutrition;

- Forests for fuel. It would seem that the people are becoming aware of the danger of the total elimination of fuel and the need to provide for this in good time.

Health-related needs included:

- An improved curative service as expressed by the need for more residential and mobile clinics, and greater availability of ambulances. This need could be partially addressed by an improved infrastructure. Another need was the provision of medication by the CHWs (shops do not always stock the basic medicines);

- A youth centre for recreation and education, for instance to educate teenagers on sexual matters as well as on the prevention of drug and alcohol abuse. This need was mentioned in one health ward;

- The solving of the problems of alcohol and drug abuse.

Although the community is trying to improve its health conditions it has more pressing survival needs which take precedence, such as the provision of food for the family and money for daily provisions and education of the children.

According to the respondents there is a good relationship between the community and the CBHP. The communities are said to be proud of having CBHPs and CHWs - in some areas the CHWs are also approached by members of communities where there is no CBHP.

The CBHP is adapted to local standards; people are taught to use materials and substances available in the home. Initially the community was somewhat wary of the programme, but it is now well accepted and the acceptance is enhanced by

the fact that the CHWs identify with the community, for instance by not wearing a uniform. Most of the CHWs and the CHC members felt that it would be a good idea for the CHWs to wear uniforms for reasons such as identification and protection of clothes. This issue is a subject on which the community could be asked for an opinion.

In general communication channels are open from the community to the formal health structure and the Amatikulu Centre. There are more or less established paths of communication which are reasonably flexible. The poor infrastructure in the communities hampers communication but the members of the CBHP show initiative in using existing channels, for instance sending messages via the schools, clinics and hospital visitors.

The contact between the CBHP and the community mainly takes place during daily visits to homes by the CHWs. The CHC members are also in daily contact with the community and can lend their support to the CHWs and can follow up the community's problems with the CBHP. It seems that there is ample opportunity for contact at grass-roots level.

The CBHP is fairly well integrated with the established structure of both the formal health service and the community. However the following are some matters mentioned by the respondents which should receive attention:

- There is no real co-operation with the CBHP - although schools provide health education.

- Private doctors providing a health service in the community are not involved in the CBHP.

- The co-operation of the traditional healers with the CBHP is not well established.

4.2 The CBHP and the tribal authority

The tribal authority employs the CHWs. Contact between the CBHP personnel and the tribal authority occurs mainly through the supervisor and the CHF. Before a branch of the CBHP is implemented the tribal authority is approached. Subsequent contact can be initiated by either party or the CHC members without any difficulty and occurs mainly during the community meetings. Although communication and co-operation in general are satisfactory it was mentioned that *indunas* who wanted to be selected as members of a committee and who

wanted their children to be CHWs, did not give their co-operation.

In one health ward the *indunas* seemed to resent the CHWs taking over the social welfare of the community which they considered to be their responsibility. Care should be taken to provide the *indunas* with adequate information on the programme and to emphasize the important role that they play in their capacity as tribal authority in community development.

4.3 Role of the supervisors of the CHFs

Selection of the supervisors of the CHFs occurred on the basis of their qualifications and experience. All were registered nurses and midwives and three were registered community health nurses. It was mentioned that the latter qualification was really essential to perform this supervisory role.

All of them felt that they were not adequately trained for their role as supervisor. Three supervisors said that they had not received any formal training while the others had attended a three-day workshop. They relied to a large extent on the CHFs for practical information on the programme.

The supervisors' functions include the supervision and support of the CHFs, negotiations with the tribal authority concerning the implementation of the CBHP and developmental projects and keeping the hospital authorities informed of developments in the programme.

There is daily contact between the supervisor and the CHFs in each health ward. Meetings take place once a week/month.

Although the CHFs in general were satisfied with the performance of the supervisors it seems that there were some obstacles to supervision. One CHF said that the supervisor was not really completely knowledgeable of the CHF's role; lack of time seemed to hamper the supervisors' performance, and meetings were not held as regularly as they should be.

Contact between the supervisor and the CHWs usually occurs through the CHFs and during monthly meetings. Some CHWs mentioned that the supervisor visited them in the community to assist in training and for discussions. One supervisor thought that the CHWs should really make contact with the CHFs only. This view should be discouraged since the contact with members higher up in the hierarchy and their interest in the CHWs' activities are valued and serve as important support.

Contact between the supervisors and the CHC members seems to be limited to occasional discussions. Some CHC members said that they had no contact with the supervisor and some said that they did not know the supervisor. It is important that the CHC members should be acquainted with the supervisor and be assured of the interest of the formal health-care system in their work. This apparent lack of interest may be a contributing factor in the inactivity of the CHC members.

The supervisors rely mainly on the hospital and CBHP staff for support. The supervisors' support to and supervision of the CBHP and the CHFs are handicapped by the lack of transport and time.

4.4 Role of the CHFs

Suitable applicants are approached by the matron of the hospital to apply for a vacant post. A good CHF should *inter alia* be community-oriented, have good interpersonal skills, have leadership qualities, be a long-time resident and have experience in community work. Suggestions for the improvement of the selection process included that vacant posts should be more widely advertised, prospective CHFs should work a trial period in the community, and more information should be made available to prospective applicants for instance by means of discussions with personnel from the Amatikulu Centre and other CHFs.

Training of the CHFs takes place over a period of approximately 18 months. Short periods of theoretical training at the Amatikulu Centre were alternated by longer periods of practical work in the community. The curriculum included the elements of primary health-care (PHC) as set out by the WHO, the particular health problems of rural KwaZulu, a good grounding in the nature and interactions of the community and communication and organization skills.

The CHFs had been taught by means of adult education methods and felt that their active participation in the learning process led to feelings of greater self-worth. They were satisfied with the method of examination which included the Objective Structured Clinical Evaluation (OSCE) which they had not encountered before. All of the CHFs felt that there was a need for continuing training.

The most important functions of the CHFs are:

- the orientation of the tribal authorities and the communities regarding the CBHP;

- the training of the tribal authorities, the CHWs and the CHC members;

- supervision of the CHWs;

- needs assessment and implementation of developmental projects with the assistance of the community, and

- the execution of administrative tasks relating to the employment of the CHWs.

Monthly meetings which include an education session ensure regular contact between the CHFs and the CHWs and more contact is arranged as needed. Some of the CHWs mentioned that they would like to see the CHFs more often; however a lack of transport appeared to be the obstacle.

During the survey the presentation of a health education session by one CHF in each health ward was qualitatively evaluated by the researchers. In general these sessions were seen as successful and as answering the requirements of adult education, such as being learner-centred, problem-posing, self-realizing and action-oriented.

Contact between the CHFs and the CHC members occurs mainly at the monthly community meetings and sometimes at CHC meetings. Lack of transport is an obstacle to regular contact. In one health ward this problem causes the CHF to limit contact largely to new and inactive committees while in another some of the CHC members said that they had had no contact with the CHF since the introduction of the programme.

The CHFs are primarily supported and supervised by the supervisor although other hospital staff and CBHP staff also support them. However in one health ward support was not sufficient owing to the lack of understanding by the supervisor and hospital staff of the programme and in another support was lacking owing to clinical demands which took precedence.

The CHFs enjoyed their work but mentioned some dissatisfactions: their workload and qualifications justified higher salaries, and lack of transport confined them to the office which led to frustration and boredom. The newly introduced bridging course for enrolled nurses which leads to their becoming registered nurses, was seen by one supervisor as a threat to the future training of CHFs.

4.5 Role of the community CHWs

When the CBHP is implemented the CHWs are chosen by the community according to certain criteria. For instance, they must have good interpersonal skills, be of high moral standard, be well known to the community, have dedication and perseverance, and preferably be female and literate.

Training of the CHWs takes place in their communities over variable periods to overcome obstacles such as transport for the CHFs. Training is mainly conducted by the CHFs and their supervisors. Subjects taught include the elements of PHC as identified by the WHO as well as communication, practical and administrative skills. Adult education methods are used and the CHWs felt that the knowledge and skills gained enabled them to teach the community about the prevention of illness and the promotion of health. They were satisfied with the form of the examination which consisted of a written and a practical part, as well as with the continuing education which they received on a regular basis.

The CHWs' main functions concern preventive and promotive health-care, and are to: assess the community's needs on a continual basis during home visits; provide health education; encourage and monitor developmental projects, and act as a link between the community and the formal health structure for instance by means of referral.

The CHWs maintain flexibility in the performance of their tasks, adapting health education to the needs of the households and visiting those in need of care more often.

As was done with the CHFs, a health education session by one CHW in each health ward was qualitatively evaluated and found generally to accord with the principles of adult education.

The other respondents were satisfied with the CHWs' performance in general - in one health ward some CHC members mentioned that the CHWs had brought about noticeable improvements. However, one CHF said that when the committees were inactive the CHWs tended not to work well.

Although the CHWs were satisfied with the support which they mainly received from the CHFs and CHC members, they felt that they were not receiving adequate material support, for instance in regard to stationery supplies and travel allowances. They experience some problems with the support of the community

since they cannot provide basic medicines and dressings or bandages.

The CHWs were enthusiastic about their work. However some factors causing discontent were discussed: difficult working conditions such as walking long distances over difficult terrain in all-weather conditions, salaries were too low and experience was not taken into consideration, and clothing (uniforms) was not supplied.

4.6 Role of the CHCs

Basically the same procedure as for the CHWs is used to select the CHC members. Criteria that the CHC members considered to be important include the following: having good communication and supervisory skills, being a neutral link between the community and the CHWs, being trustworthy and preferably literate. Not all of the communities understood the criteria and therefore selection was not always effective. One chairperson of a committee reported that he had been selected in absentia, received no training and was unwilling and inactive.

The committee's functions are to supervise and support the CHWs, encourage the community to follow the advice of the CHWs, act as mediators between the community and the local authorities and arrange community meetings. Some CHC members were not sure of their functions and would like to receive a written job description.

Contact between the members of the CHCs and the CHWs takes place about once a month. One member of the CHC supervises the CHWs and has daily contact with them. In one health ward some of the CHWs and CHC members said that they had never had discussions together. This situation could be attributed *inter alia* to uncertainty about their duties and to inadequate support and encouragement from the CHF.

The large turnover of the CHC members as well as the inactivity of some members was a problem. Reasons mentioned include that they were not being paid for their work, that they were unsure of their duties and that they were not sufficiently supervised and motivated due to the lack of transport.

Most of the CHC members mentioned that they had received some training from the CHF on the functions of a committee. In two health wards some of the CHC members said that they had not received any training. A need for continuing training was also expressed, for instance in first aid and the treatment of certain

illnesses. According to one CHF training is adversely affected by the high incidence of illiteracy and the lack of proper venues. Inadequate training could lead to a lack of motivation and ultimately inactivity.

The CHC members are supervised mainly by the CHF, the chairperson of the committee and the local authority.

Although reasonably satisfied with their working conditions the CHC members in general were dissatisfied because they were not being paid. One supervisor coped with these complaints by hinting that future payment was a possibility. It is recommended that the community should be made aware, even before the selection, that CHC membership is an important community-oriented function which is performed voluntarily. Expectations of future payment should not be created.

4.7 Role of the formal health-care personnel

Most of the contact of the CBHP with other personnel in the formal health-care system is with the superintendent, matron, school nurses and clinic nurses and some of the doctors. Other health-care workers mentioned include the malaria team in two of the health wards and social workers, physiotherapists and occupational therapists. There seems to be a well-developed referral system between the community and the health personnel.

Meetings of the supervisor and the CHFs with the PHC team occur regularly in two health wards while in another the CHF said that meetings were irregular and should occur more often. One supervisor said that in two months there had been no meetings with the PHC team. In one health ward even the CHWs had formal contact with the community doctor once a month and he was also involved in their evaluation. The doctor's interest in their work was greatly valued.

The moral and practical support of a doctor that the CBHP could rely on in this health ward was not evident in the other health wards. It was mentioned that owing to the shortage and rapid turnover of doctors, they often lacked knowledge of the CBHP and were not really involved.

4.8 Role of the Amatikulu Centre

The supervisors and the CHFs have personal contact with the Amatikulu personnel about once a month in two health wards and once in every two to three months in the other two. It was mentioned that these meetings did not take place as

often as they should and a plea was made for more regular contact.

Both the supervisors and the CHFs said that the staff of the Amatikulu Centre were very supportive and one CHF felt that most moral and practical support came from Amatikulu and that they played an important role in the evaluation of the CHFs' work. In order to prevent the CBHP from being seen as a vertical programme bypassing the formal health structure, it could be considered involving hospital staff such as the community doctor in the training of CHFs and in the meetings between Amatikulu personnel and CBHP personnel.

The supervisors and the CHFs would also like more contact with their colleagues in other health wards. Such contact could counteract isolation, improve motivation and assist in the distribution of information and in the solving of problems.

4.9 Monitoring and evaluation of the CBHP

The respondents stated that initial as well as continuous needs assessments of health and developmental projects were performed with the assistance of the community. The programme is monitored on the basis of the implementation and progress of developmental projects and health status (for example disease incidence, hospital admissions and referrals by CHWs) of the community and general impressions of environmental improvements. The factors impeding or aiding progress are continually evaluated.

The CHWs keep records of their daily activities and members of all the categories submit reports which are fundamental to the monitoring of progress against set goals. **However the respondents seemed to be uncertain of the formal criteria for monitoring and evaluation. It is recommended that a set of guidelines be clearly defined for each level of the hierarchy.** This should be done in co-operation with all parties concerned.

Monitoring and evaluation of the respondents' own work is mainly performed by using self-assessment and group discussions with their colleagues and supervisors. Although monitoring and evaluation seem to be performed continuously, the respondents were rather uncertain of the extent to which they fulfilled expectations - there was not always adequate feedback. It is absolutely essential that regular feedback be given to all those whose work is being monitored and evaluated.

Attention should also be paid to suggestions offered by the respondents for the improvement of the CBHP *inter alia*:

- training more CHFs and CHWs;
- extending the training of CHFs and CHWs to include more local health problems such as malaria;
- allocation of transport specifically to the CBHP;
- more interaction with other branches of the CBHP on all levels;
- increasing the salaries of the CHFs and the CHWs;
- greater co-operation with schools;
- more contact between the community, the CBHP and the hospital staff;
- conducting research into the effectiveness of the CBHP.

5. CONCLUSION

In general the respondents were enthusiastic about the CBHP and their work. Within the constraints in which they functioned they showed flexibility, and especially the CHWs adapted their work according to the needs of the community. However it should be pointed out that it is of vital importance for effective functioning that everybody in the CBHP and the formal health system be well informed of the participants' roles and the services they can offer, and that communication between all levels should be of a supportive nature.

REFERENCE

WHO. 1989. *Report of a WHO Study Group on Community Health Workers*: 5-43.

PART II: Paper 2

PROCESS EVALUATION: HEALTH WARD MANAGEMENT TEAM

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1. INTRODUCTION

In this part of the research the members of the health ward management teams in the four areas were examined to find out what their perceptions were of the Community-Based Health Programme (CBHP) operating in their health wards.

2. METHOD

2.1 The questionnaire

The survey was conducted by means of a questionnaire that was mailed to key personnel of the hospital management and also to members of the broader primary health-care (PHC) team in the four survey areas and included questions on their:

- awareness of the CBHP;
- knowledge of the aims, objectives and organization of the CBHP;
- involvement in and support of the CBHP;
- views on ways to improve the programme.

As far as was practicable the questions were open-ended so that the respondents could supply as much information as possible.

2.2 The samples

Questionnaires were mailed to 42 members of the medical, nursing and administrative personnel as well as to social workers in the four health wards selected for study. For the sake of anonymity the wards are indicated as A, B, C and D, except where using the symbols would facilitate "connecting" a symbol to a specific health

ward. A period of four weeks was allowed for the questionnaires to be returned after which a second questionnaire was mailed to those persons who had not yet responded. A further period of two months was allowed for responses. The numbers of questionnaires mailed and returned were as follows:

Ward	Mailed	Returned
A	11	6
B	11	7
C	11	7
D	9	7
TOTAL	42	27

TABLE 1.1: POSITION IN THE HEALTH WARD MANAGEMENT TEAM

Position in team	A*		B		C		D		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Matron	1	16,7	1	14,3	1	14,3	1	14,3	4	14,8
Hospital administrator	•	•	•	•	1	14,3	1	14,3	2	7,4
Medical superintendent	1	16,7	1	14,3	1	14,3	1	14,3	4	14,8
Community medical officer	1	16,7	1	14,3	1	14,3	•	•	3	11,1
Community health nurse	•	•	1	14,3	2	28,6	•	•	3	11,1
Primary health-care nurse	1	16,7	1	14,3	•	•	1	14,3	3	11,1
Clinic nurse	1	16,7	1	14,3	1	14,3	2	28,6	5	18,5
Tutor	•	•	1	14,3	•	•	1	14,3	2	7,4
Psychiatric nurse	1	16,7	•	•	•	•	•	•	1	3,7
TOTAL	6	100,0	7	100,0	7	100,0	7	100,0	27	100,0

* The symbols A, B, C and D have been assigned to the four health wards independently and do not necessarily match the pattern followed in the report *An assessment of the Community-Based Health Programme (CBHP) in KwaZulu.*

TABLE 1.2: DURATION OF EMPLOYMENT

Duration in years	A		B		C		D		TOTAL	
	N	%	N	%	N	%	N	%	N	%
3 years or less	3	50,0	2	28,6	4	57,1	2	28,6	11	40,7
4 - 6 years	1	16,7	•	•	•	•	•	•	1	3,7
7 - 9 years	1	16,7	•	•	2	28,6	1	14,3	4	14,8
10 - 12 years	•	•	1	14,3	•	•	1	14,3	2	7,4
13 years or more	1	16,7	4	57,1	1	14,3	3	42,9	9	33,3
TOTAL	6	100,0	7	100,0	7	100,0	7	100,0	27	100,0

There was a response rate of just more than 64 %. For a postal survey this can be considered an adequate response rate on which to base reliable conclusions. Descriptions of the samples in terms of the positions of the respondents in the health ward management team are shown in Table 1.1 and those in terms of the duration of employment in the health ward, in Table 1.2. It should be noted that all medical superintendents, community medical officers and matrons returned their questionnaires while only some of the administrators, tutors and other nursing personnel did so. None of the social workers responded. This might indicate that the non-respondents were not aware of or really involved in the CBHP. Where the duration of employment is concerned it seemed that about 41 % of the respondents had been employed for less than three years in their respective areas although some 33 % of the respondents had been employed for 13 years or longer.

2.3 Analysis and presentation of the data

Since this survey is of a qualitative nature and a relatively small number of respondents was involved, a description of the data will be given, but no inferential statistical analyses will be performed. Frequencies and percentages will be shown in tables where appropriate.

3. FINDINGS

3.1 Awareness of the CBHP

The respondents were asked whether they were aware of the CBHP in their health

wards and how long they had known about it. Responses to the first question revealed that all the respondents were aware of the existence of the CBHP in their areas.

TABLE 1.3: DURATION OF AWARENESS OF THE CBHP

Duration in years	A		B		C		D		TOTAL	
	N	%	N	%	N	%	N	%	N	%
less than 3year	2	33	2	29	1	14	3	43	8	30
3 years	1	17	•	•	3	43	2	29	6	22
4 years	•	•	1	14	•	•	•	•	1	4
5 years	1	17	3	43	2	29	•	•	6	22
6 years or	1	17	•	•	•	•	1	14	2	7
7 or more year	1	17	1	14	1	14	1	14	4	15
TOTAL	6	100	7	100	7	100	7	100	27	100

The duration of the respondents' awareness of the programme in their health ward varied greatly (Table 1.3). (It should be borne in mind that some of the respondents had been working in the health ward for a relatively short time before the survey took place - see Table 1.2.)

3.2 Objectives of the CBHP

The respondents were asked what they thought the objectives of the CBHP in their health ward were and whether they believed that the aims were being achieved.

The majority of the respondents in all four health wards (Table 1.4) viewed the objectives comprehensively, namely the improvement of primary health care; the involvement of the community in its own health care and the provision of health education.

Some defined the objectives more narrowly, concentrating on specific points such as the provision of curative, preventive/promotive or rehabilitative services. Others referred to even more specific points, such as discouraging home deliveries; rendering first aid; malnutrition follow-up; and co-ordinating health workers and traditional healers.

A small proportion (15 % of the total sample) perceived that the CHWs provided curative services only.

TABLE 1.4: OBJECTIVES OF THE CBHP IN THE HEALTH WARD

Objectives	A		B		C		D		TOTAL*	
	N	%	N	%	N	%	N	%	N	%
Improve primary health care	2	33	5	71	4	57	3	43	14	52
Involve community in own health care	3	50	5	71	3	43	2	29	13	48
Provide health education	3	50	4	57	3	43	3	43	13	48
Provide curative service only	1	17	1	14	2	29	•	•	4	15
Provide preventive/promotive service only	1	17	•	•	3	43	•	•	4	15
Provide rehabilitative service only	1	17	•	•	1	14	•	•	2	7
Mentioned specific aspects**	5	83	4	57	2	29	2	29	13	48

* Some respondents gave more than one response, therefore the percentages do not total 100.

** Discouraging home deliveries; rendering first aid; malnutrition follow-up; medication follow-up; co-ordinating health workers and traditional healers.

The objectives of the CBHP were felt to be met in varying degrees in the four health wards (Table 1.5). Fifty-seven per cent of the respondents in both Wards C and D felt that the objectives of the CBHP were being met although a further 29 % in Ward C and 14 % in Ward D had some reservations. The situation differed in Ward A, where only 33 % (and a further 17 % with reservations) and Ward B, where only 14 % (and 43 % with reservations) felt that the objectives were being reached.

TABLE 1.5: ARE THE OBJECTIVES OF THE CBHP IN THE HEALTH WARD BEING MET?

Objective being met?	A		B		C		D		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Yes	2	33	1	14	4	57	4	57	11	41
Yes, with reservations	1	17	3	43	2	29	1	14	7	26
No	3	50	2	29	1	14	1	14	7	26
Unsure	•	•	1	14	•	•	1	14	2	7
TOTAL	6	100	7	100	7	100	7	99	27	100

The reasons respondents gave for thinking that the objectives of the CBHP were being reached, could be summarized as follows:

- The CBHP rendered health services to the community. Examples of these services included oral rehydration, immunization, supervision of TB patients, referral of patients and treatment of mild illnesses.

- The CBHP was responsible for the implementation of worthwhile projects such as community gardening, the building of toilets and water protection.

- The community was more aware of and used the health services in its area more effectively and was better able to take care of its members than previously.

Some of the reasons respondents gave for feeling that the objectives were not being met, were:

- There were not enough CHFs and CHWs to serve the large communities - in some communities there were no CHWs.

- There was a shortage of health personnel in general.

- Unsatisfactory practices continued; for instance, home deliveries still occurred, compliance with immunization schedules was poor, toilets were not being built, the water supply was still poor and there were still defaulters in the TB treatment programmes.

- CHWs worked in isolation from other professional people and the community leaders. Some CHWs still had an "oppressive" attitude.

- Health centres were still at a great distance from the people.

- The programme was not evaluated annually.

Finally those respondents who felt that the objectives were being met, but who had certain reservations, gave the following reasons:

- Illiteracy in the community and the consequent poor communication, obstructed the CBHP.

- Lack of such resources as transport prevented progress in the programme and made supervision difficult.

- More CHWs and CHFs were needed.

- The CHWs had not been sufficiently incorporated into the health-care plans of patients, for example in TB follow-up.

3.3 Involvement in the CBHP

Respondents were asked whether they had been involved with the CHFs, CHWs or any of the other components of the CBHP, what their involvement in the CBHP had been and in what way they thought they could support the programme in future.

Most of the respondents (Table 1.6), ranging from 71 % in Wards B and C to 100% in Ward D, had been involved in some or other aspect of the CBHP.

TABLE 1.6: INVOLVEMENT IN THE CBHP

Involved?	A		B		C		D		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Yes	5	83	5	71	5	71	7	100	22	82
No	1	17	2	29	2	29	•	•	5	19
TOTAL	6	100	7	100	7	100	7	100	27	100

This involvement focussed on activities such as teaching, examining and supporting the CHWs and supervising and supporting the CHFs (Table 1.7). A few respondents mentioned that they involved the CHWs in patient follow-up, for example in conditions such as tuberculosis or malnutrition.

TABLE 1.7: TYPE OF INVOLVEMENT IN THE CBHP

Type of involvement	A		B		C		D		TOTAL*	
	N	%	N	%	N	%	N	%	N	%
Support of CHWs and CHFs	1	17	2	29	3	43	3	43	9	33
Transport management	1	17	1	14	2	29	3	43	7	26
Teach CHWs	1	17	2	29	2	29	•	•	5	19
Health education: community	1	17	2	29	1	14	1	14	5	19
Motivation for programme	1	17	1	14	2	29	1	14	5	19
Examination of CHWs	1	17	2	29	•	•	1	14	4	15
Supervise CHFs	1	17	1	14	1	14	1	14	4	15
Involve CHWs in follow-up of patients	1	17	1	14	•	•	1	14	3	11
Other**	1	17	1	14	1	14	2	29	5	19

* Some respondents gave more than one response, therefore the percentages do not total 100.
** Other mentioned: community development, member of the community development committee, and evaluation of the programme.

The respondents mentioned being involved in obtaining transport for the CBHP (26%) and in motivating for a CBHP (19 %) as ways in which they had supported the programme. Joint organization with the CBHP for special community health efforts such as health days, AIDS day and breast-feeding week was also mentioned by 19% of the respondents. A few mentioned being involved with community development (such as organizing spring protection and community gardening, encouraging toilet building and protecting the water supply).

An encouraging response was the willing support offered for the CBHP for the future by all but two respondents who were soon to leave the area (Table 1.8). The support

offered included training of the CHWs in general and specific subjects as well as their continuing education. Supporting, supervising and encouraging both CHWs and CHFs were also mentioned by a number of respondents in each area.

Involvement with the community was another area in which respondents in all four health wards felt that they could play a role, for instance by providing health education, by motivating and advising the community (assist during meetings, make suggestions, support the community and help with problem solving) and generally assisting with the programme (e.g. home visiting and immunization).

In three of the areas respondents mentioned that they could be involved in fund raising for assistance with transport.

Although the evaluation of the programme was mentioned in only one area this would seem to be another important aspect of the programme in which members of the health team could be involved.

TABLE 1.8: WAYS OF SUPPORTING THE PROGRAMME

Possible types of support	A		B		C		D		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Support of CHWs and CHFs	3	50	2	29	4	57	2	29	11	41
Advise community	1	17	4	57	1	14	3	43	9	33
Seek private funding	•	•	1	14	3	43	2	29	6	22
Health education: Community	3	50	1	14	1	14	•	•	5	19
Generally assist PHC programme	2	33	•	•	1	14	2	29	5	19
Training CHWs:general	1	17	•	•	2	29	•	•	3	11
Training CHWs: specific	2	33	1	14	•	•	•	•	3	11
Continuing education: CHWs	1	17	1	14	1	14	•	•	3	11
Evaluation of programme	3	50	•	•	•	•	•	•	3	11
Other*	•	•	1	14	1	14	2	29	4	15

* Other includes motivating the community; or the respondent would be leaving soon.

3.4 The place of the CBHP in the health system

To determine perceptions of the role the CBHP plays in the health system, two statements were offered to the respondents with the request that they indicate with supporting arguments which of the two statements they thought were the most applicable to the CBHP in their health ward:

(A) Some people say that the CBHP in KwaZulu is essentially a vertical programme under the control of a head office that bypasses the existing structures in the health ward.

(B) Others say that it is part of a well-integrated health system in the true spirit of health care.

TABLE 1.9: ROLE OF THE CBHP

Type of integration	A		B		C		D		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Vertical programme	2	33	•	•	•	•	•	•	2	7
Integrated part	4	67	7	100	7	100	7	100	25	93
TOTAL	6	100	7	100	7	100	7	100	27	100

The majority of the respondents in all four areas held the opinion that the CBHP was part of a well-integrated health-care system (Table 1.9.) However the fact that there were two respondents who did not share this view cannot be ignored. The latter felt that: there seemed to be more allegiance in the CBHP to the Amatikulu Centre than to the hospital; and the CBHP was an autonomous unit without accountability to the other structures within the hospital and community. (The latter reason was regarded as possibly being expedient since medical staff in the hospital often changed.)

The explanations of those respondents who felt that the CBHP formed part of a well-integrated health system can be summarized as follows:

- The CBHP is part of a system involving the community, the local authorities, the agricultural services, the schools, social workers and the hospital. All these institutions and individuals are well informed about the programme and work hand in hand with the programme.

- The CBHP has strong links with the hospital and clinics - the CHWs are being taught by and are under the guidance of the CHFs who in turn are under the supervision of and are receiving the support of the nursing and medical staff of the hospital.

- The CBHP is part of a comprehensive health-care scheme, involving different professional categories, aiming at the improvement of health-related status, encouraging everybody's active participation and incorporating an adequate referral system.

- The CBHP changes the traditional pyramidal structure of health care in which all authority resides in the apex to a more constructive system with improved attitudes and communication.

- Since there are not and never will be enough health personnel, particularly nurses, to perform the all-important task of assisting the people of the rural areas in their own homes (which should really be done by community health nurses), the CHWs are doing this. They are the people who have the best understanding of their people and therefore are best able to help them. "They are acting as our feet to walk in the community."

3.5 Knowledge of the CHWs and CHFs

Some questions were included about the number of CHFs and CHWs in the health wards, the remuneration of the CHWs and the supervision of the CHFs and CHWs.

The respondents in Mosvold and Nkandla knew the number of CHFs working in their area, and two-thirds of the respondents in Manguzi knew the number of respondents in their area.

TABLE 1.10: NUMBER OF CHFs IN THE HEALTH WARD

Respondents' estimate	Charles Johnson (1)*		Mosvold (2)		Nkandla (1)		Manguzi (2)	
	N	%	N	%	N	%	N	%
One	3	43	•	•	7	100	1	17
Two	3	43	7	100	•	•	4	67
Four	1	14	•	•	•	•	•	•
Six	•	•	•	•	•	•	1	17
TOTAL	7	100	7	100	7	100	6	100

* The numbers in brackets refer to the actual number of CHFs in each health ward.

In Nkandla 86 % of the respondents recorded the correct number of CHWs (Table 1.11). None of the others came close to the correct number; and in Manguzi no respondents answered correctly.

TABLE 1.11: RESPONDENTS' KNOWLEDGE OF THE NUMBER OF CHWs IN THE HEALTH WARD

Respondents' estimate	Charles Johnson (23)*		Mosvold (56)		Nkandla (14)		Manguzi (57)	
	N	%	N	%	N	%	N	%
1 to 9	2	29	•	•	1	14	2	33
10 to 19	2	29	1	14	6	86	1	17
20 to 29	3	43	•	•	•	•	•	•
30 to 39	•	•	•	•	•	•	•	•
40 to 49	•	•	•	•	•	•	3	50
50 to 59	•	•	3	43	•	•	•	•
60 to 69	•	•	1	14	•	•	•	•
70 to 79	•	•	•	•	•	•	•	•
80 to 89	•	•	2	29	•	•	•	•
TOTAL	7	100	7	100	7	100	6	100

* The numbers in brackets refer to the actual number of CHWs in each ward.

Almost half of the respondents indicated that they did not know what the CHWs earned an hour (Table 1.12). Some thought that the CHWs did voluntary work or earned less than R1 an hour. The percentages of respondents who knew the approximate amount of their earnings (R1-R2) varied between 14 % (Ward D) and 43 % (Ward C).

TABLE 1.12: RESPONDENTS' KNOWLEDGE OF THE CHWs' REMUNERATION AN HOUR*

Respondents' estimate	A		B		C		D		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Nothing	•	•	1	14	•	•	•	•	1	4
Less than R1	1	17	•	•	2	29	2	29	5	19
R1-R2	2	33	2	29	3	43	1	14	8	30
Do not know	3	50	4	57	2	29	4	57	13	48
TOTAL	6	100	7	100	7	100	7	100	27	100

* Real earnings R1-R2 an hour.

Twenty-nine per cent of the respondents in Wards B, C and D and 50 % in Ward A thought that the CHFs were responsible to and were supervised by personnel from the Amatikulu Centre (Table 1.13). (Some respondents in Wards A (33 %) and B (29%) thought that the CHFs were only supervised by the Amatikulu staff (respondents could give more than one response), and others mentioned Amatikulu staff as well as hospital staff).

In two wards, namely B and D, reference was also made to a CHF's supervisor. Most of the respondents from Ward C (86 %) and Ward A (50 %) mentioned that the CHFs were responsible to senior nursing staff, such as a matron or a community health nurse.

TABLE 1.13: RESPONDENTS' KNOWLEDGE OF THE CHFs' SUPERVISOR

Respondents' perception	A		B		C		D		TOTAL*	
	N	%	N	%	N	%	N	%	N	%
Senior nurses	3	50	4	57	6	86	4	57	17	63
Amatikulu staff	3	50	2	29	2	29	2	29	9	33
CHFs' supervisor	•	•	2	29	•	•	2	29	4	15
Med. superintendent	•	•	1	14	2	29	1	14	4	15
Administrator	•	•	•	•	1	14	•	•	1	4
Community leaders	•	•	1	14	•	•	•	•	1	4
Do not know	1	17	•	•	•	•	•	•	1	4

* Some of the respondents gave more than one response; consequently percentages do not total 100.

More than 85 % of the respondents in each area mentioned that the CHWs were responsible to and supervised by the CHFs (Table 1.14.) It is interesting to note that reference was also made in three of the health wards (B, C and D) to their supervision by the community, the community authorities, the CHC or the supervisor (who is a member of the CHC).

TABLE 1.14: RESPONDENTS' KNOWLEDGE OF THE CHWs' SUPERVISOR

Respondents' perception	A		B		C		D		TOTAL*	
	N	%	N	%	N	%	N	%	N	%
CHFs	6	100	6	86	6	86	6	86	24	89
Community authorities	•	•	1	14	1	14	1	14	3	11
Matron	•	•	•	•	•	•	2	29	2	7
Supervisor	•	•	1	14	•	•	1	14	2	7
CHC	•	•	1	14	1	14	•	•	2	7
Clinic sisters	1	17	•	•	•	•	•	•	1	4
Community	•	•	•	•	•	•	1	14	1	4

* Some of the respondents gave more than one response with the result that percentages under TOTAL do not sum to 100.

3.6 Suggestions for the improvement of the CBHP

Finally respondents were asked to suggest ways to improve the CBHP. A number of ways were suggested and are summarized in Table 1.15.

The shortage of vehicles for use in the CBHP causes concern in most of the health wards and it was suggested that vehicles should be allocated specifically to the CBHP.

Suggestions concerning the CHWs focus on the need to employ more CHWs who are better trained. Other matters, for example a more substantial course including a greater number of practical procedures such as first aid, also received attention. Moreover a plea was made for the appointment of more CHFs. Closer liaison between the nursing, medical and clinic staff of the health team and the CBHP was suggested.

Furthermore, more effective motivation of the community, including the tribal authorities and the magistrate, to take greater responsibility in the planning and implementation of the programme, was suggested. The community should be better informed of the role of the CHWs.

TABLE 1.15: SUGGESTIONS FOR IMPROVEMENT OF THE CBHP

Respondents' perception	A		B		C		D		TOTAL*	
	N	%	N	%	N	%	N	%	N	%
More vehicles	•	•	2	29	7	100	2	29	11	41
Informing and motivating the community	•	•	4	57	1	14	•	•	5	19
More CHWs	1	17	2	29	1	14	1	14	5	19
More CHFs	•	•	•	•	3	43	1	14	4	15
Better training for CHWs	1	17	1	14	2	29	•	•	4	15
Better representation for CHWs in team	3	50	•	•	•	•	•	•	3	11
Medical personnel to be more involved	•	•	•	•	1	14	2	29	3	11
Nursing staff to be more involved	1	17	1	14	•	•	1	14	3	11
Improvement of health education facilities	1	17	2	29	•	•	•	•	3	11
Other**	2	34	2	28	1	14	3	42	8	30

* Some of the respondents gave more than one response thus percentages do not total 100.

** Other suggestions included: Team better informed of CHWs' functions; research on CHWs' work; clinic sisters to work more closely with CHWs; fundraising for CHWs' salaries; better roads and better budgeting.

4. CONCLUSION

From the above findings it appears that all the respondents in all four health wards were aware of the existence of the CBHP in their areas. It is possible that the non-respondents were unaware of the programme and therefore did not respond.

The objectives of the programme were understood by most of the respondents as being of a comprehensive nature with responses focussing on the improvement of primary health care, community involvement in health care and the provision of health education. Other responses referred to specific services such as pre-

ventive and promotive services while others referred to specific action such as mal-nutrition follow-up.

More than half of the respondents in Wards C and D felt that the objectives of the CBHP had been achieved in general while 29% (Ward C) and 14% (Ward D) thought with some reservations that they had been achieved (Table 1.5). Most of the respondents in Wards A and B felt that they had not been achieved (50% and 29% respectively) or that they had been reached but not unequivocally (17% and 43% respectively). It could be speculated that respondents in the health wards where the programmes had been established for a longer period, were more aware of some of the obstacles in the way of success than were the respondents in the other areas.

Respondents who felt that the objectives were being reached, mentioned that the CBHP rendered health services to the community, was responsible for the implementation of worthwhile projects, and had increased the community's awareness and use of the health services. Respondents who felt that the objectives were not being met adequately, indicated as their reasons that there were not enough CHWs and CHFs, there was a shortage of health personnel in general, unsatisfactory health practices persisted (e.g. immunization practices were poor), CHWs did not work in co-operation with professional workers, the health centres were located far from the people, illiteracy in the community with consequent poor communication was rife and there were transport problems also.

Most of the respondents mentioned that they had been involved with the CBHP in some or other way, mostly in respect of the training of CHWs and the support of the CHFs and CHWs, and to a lesser extent in various aspects of community work, such as health education. Motivation for the programme and transport management were also mentioned.

All the respondents were willing to support the programme in the future. Areas in which they envisaged their involvement included the training of the CHWs and support of the CHWs and CHFs, involvement in the community (for instance by helping with problem solving), and evaluation of the CBHP. The fact that respondents in three areas mentioned that they could support the programme by seeking funding for transport seems to accentuate the transport problems that were repeatedly mentioned during this survey.

Most of the respondents viewed the CBHP as part of a well-integrated health system in the true spirit of health care. Opinions in this regard can be summarized

as follows: The CBHP is part of a comprehensive health-care scheme, involving different professional categories, encouraging everybody's participation and incorporating an adequate referral system. It is part of a system involving the community, the local authorities, and formal developmental departments. It has strong links with the hospitals and clinics which support and supervise the CHWs and CHFs. The CBHP has brought about a health-care system more constructive than the traditional pyramidal structure and has also improved attitudes and communication. Since there are insufficient health personnel and the CHWs understand the community, they are best equipped to assist with primary health care in the community.

Respondents who expressed the view that the CBHP was a vertical programme under the control of the head office which bypassed the existing structures in the health ward gave the following responses: There seemed to be more allegiance in the CBHP to the Amatikulu Centre than to the hospital; and the CBHP was an autonomous unit without accountability to the other structures within the hospital and community. However the latter reason was regarded as possibly being expedient since medical staff in the hospital often change.

In general respondents in Mosvold and Nkandla seemed to be reasonably well informed about the number of CHFs and CHWs employed in their wards.

The respondents in all the areas mentioned that the CHFs were supervised by senior nursing staff - the supervisor was only mentioned specifically in two areas (Table 1.13). A number of other people were also mentioned as supervisors such as administrators, medical superintendents and community leaders. The staff of the Amatikulu Centre was mentioned by at least 29 % of respondents in each area. (Some respondents mentioned only the Amatikulu staff.) It can therefore be deduced that they were not aware of any local supervision of the CHFs. This may also account for the view held by some of the respondents that the CBHP was a vertical structure controlled by the head office and which bypassed the existing structures in the health wards.

The majority of respondents in each health ward mentioned that the CHWs were supervised by the CHFs (Table 1.14). A number of respondents also referred to their supervision by the community, for instance by tribal authorities and members of the CHCs. Where remuneration is concerned, it seems that although some respondents had an idea of what the CHWs earned an hour, this was not generally known.

A number of suggestions for the improvement of the CBHP were offered by

the respondents in all four health wards which further illustrates the needs of the health-care system:

- Lack of transport is a recurring problem throughout the study and transport needs to be more available to improve efficiency in the CBHP.

- More CHWs should be employed and the need for more substantial training, including a greater number of practical procedures such as first aid, should be investigated.

- More CHFs should be employed. Although the number of CHFs may need to be increased this will not increase efficiency in the CBHP unless the transport problem is resolved.

- The community should be better informed of the role of the CHWs and more efffectively motivated to participate.

- The hospital management and PHC team should be better informed of the role of the CHWs and should be more involved in the CBHP. Although these suggestions were rather vague, they should not be ignored. They seem to point to a general awareness that members of the PHC team might not be as actively involved as they could be. As one respondent put it: "... the CBHP is the most exciting development in health care in the RSA but the CHWs need to educate us on how to make better use of them and we need to address ourselves to this same question."

- CHWs should be better represented in the PHC team - on health boards and committees. This view may have something to do with the fact that in the days of voluntary CHWs, some areas had a steering committee on which CHWs served.

- Health education facilities should be improved.

PART II: Paper 3

AN ASSESSMENT OF THE CBHP IN KWAZULU: THE IMPACT OF THE COMMUNITY HEALTH WORKERS ON HEALTH KNOWLEDGE AT LOCAL LEVEL

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1. INTRODUCTION

The poor socio-economic conditions prevalent in South Africa's "Bantustans" (and KwaZulu is no exception) have been well documented. Land is limited and jobs are scarce, resulting in a structured process of marginalization, entangling many of the peoples of the homelands. This situation is perpetuated through the fact that people's participation in the political system of the homeland is limited and is further exacerbated by the fact that while homeland governments make decisions that affect the daily lives of the people, they often lack the authority to redress fundamental problems of unequal access to resources and power.

These conditions often evidence themselves in the prevalence of poverty-related diseases, including typhoid, tuberculosis and malnutrition. Frequently the response of authorities is to blame the victims for the situation by suggesting that the sufferers' ignorance contributes to the incidence of these maladies. Education rather than resource reallocation is advocated as the answer.

It is within this context that the Community-Based Health Programme (CBHP) faces its greatest challenge, namely to provide a credible service that promotes the well-being of the community it serves but without becoming a second-rate substitute for a health service that should be a fundamental right. Thus the research carried out among the 80 households in the four health wards attempted to evaluate the extent to which the CBHP meets its basic educational aims, particularly the extent of the impact which the community health workers (CHWs) have upon the local health knowledge of the communities with which they are involved.

2. METHODOLOGY

The research fieldwork was carried out in March/April of 1990. The research covered households drawn from the Nkandla, Charles Johnson (Nqutu), Mosvold, and Manguzi health wards of KwaZulu. In selecting the respondent, preference was always given to adult female respondents. Four areas were chosen from each health ward. Two were areas in which a CHW was currently working and the other two were areas without a CHW.

Given the small size of the sample, extreme care was exercised in ensuring as random a sample of households in the selected areas as possible. Six households in each area with a CHW were interviewed, and four households in each area without a CHW.

As each health ward had two research areas with and without CHWs respectively, this meant that a total of 12 households were interviewed in areas with a CHW and a further eight households were interviewed in areas without CHWs. This totalled 20 households that were interviewed in each health region; and the sum total for the four health wards amounted to 80 households interviewed.

In all but four of the cases the respondents were female. The ages ranged from 18 to 84 with an average age of 42,5.

On average the respondents had completed 4,1 years of formal education.

Although no real distinction between the socio-economic status of areas with and without CHWs was noticed by the researchers, it is worth bearing in mind that rural households in KwaZulu do not form a homogeneous entity. In fact quite large degrees of differentiation were noticed and this almost certainly formed an important variable in many of the response patterns.

3. LOCAL HEALTH KNOWLEDGE IN THE AREAS

A number of health topics on the CHWs' syllabus were selected for inclusion in the questionnaire. By administering the questionnaire to areas with CHWs and then to areas without CHWs it was hoped to obtain some idea of the differential in health knowledge between the areas. This would then be used as an indicator of the impact made by the CHWs.

Topics covered in the interviews (which lasted for approximately two hours each) covered aspects of knowledge of sanitation, the weaning of children, nutrition, family planning, antenatal clinics, the treatment of diarrhoea, the recognition of

symptoms of tuberculosis and AIDS. In addition respondents were asked about health as an aspect of their lives and about their views on various aspects of health infrastructure.

We will not present here the results of all of the health knowledge areas that we investigated, but will merely highlight some of the aspects of knowledge that we found particularly interesting and hope that these will illustrate some of the advantages of the more qualitative methodology that we employed.

3.1 Sanitation

Respondents were asked for example if they had a pit latrine in their yard. A total of 50 respondents or 62,5 % reported that they did. In areas with CHWs 62,5 % of the households said they had pit toilets, while in areas without CHWs the same percentage (62,5 %) reported having built pit toilets for their household's use. In fact **the most significant variable in terms of presence or absence of pit toilets was "health ward".** The results are presented in Table 1.

TABLE 1: HOUSEHOLDS WITH AND WITHOUT PIT TOILETS BY HEALTH WARD

	With pit toilets		Without pit toilets	
Area/Ward	N	%	N	%
Nkandla	20	100,0	0	0,0
Charles Johnson	19	95,0	1	5,0
Mosvold	4	20,0	16	80,0
Manguzi	7	35,0	13	65,0

People in both Mosvold and Manguzi did not appear to the researchers to be any less informed about pit toilets but they complained about the difficulty of digging toilet pits in the terrain where they lived. In Mosvold most people complained about the difficulty of digging in much of the rocky ground that appears to characterize large parts of the area. In Manguzi people complained that the sandy ground made it virtually impossible to dig pits as they collapsed during building.

3.2 Weaning of children

Another dimension that proved to be of interest was the question of weaning children. The researchers gained the impression that in the cases where the respondent was a young mother, almost invariably she had a very good idea of how to go about weaning children - whether there was a CHW in her area or not. The marginal status of many of the households also became apparent with this question. On more than one occasion mothers, when asked how they would wean their children (what milk substitutes they would use), replied "with anything we can afford" or "with all that we have available". It was also striking that some of the facilitators mentioned that it did little good to hospitalize malnourished children since when they were returned to their mothers the malnutrition recurred. These facilitators agreed unanimously that the problem lay not with the ignorance of the mother but with the poverty of the household. The research findings tend to concur with the facilitators' assessment.

3.3 AIDS

Respondents were asked if they had heard of AIDS and then if they knew how it was spread. Figures reflecting their knowledge about the existence of AIDS revealed the following: In areas without CHWs, 31 or about 97 % of the respondents had heard of AIDS. In areas with CHWs, 46 or about 96 % of the respondents had heard of AIDS. Furthermore 24 (75 %) of the respondents in areas without CHWs had a good idea of how the disease was spread. In areas with CHWs, 35 (73 %) of the respondents knew how the disease was spread.

Respondents were then asked about methods of preventing AIDS and it was found that 62,5 % of all respondents had a good idea of how AIDS could be prevented, with no real difference in knowledge about the prevention of AIDS between the areas. This is not really surprising as AIDS is a relatively new topic for the CHWs. In order to probe for the source of knowledge about AIDS, respondents were asked where they had first heard about AIDS, or alternatively if they could remember where they had obtained most of their information on AIDS.

TABLE 2: SOURCE OF KNOWLEDGE OF AIDS BY AREAS WITH/ WITHOUT CHWs

Source of knowledge of AIDS	Areas with CHWs		Areas without CHWs	
	N	%	N	%
Nil knowledge/ Could not answer	9	**18,8**	1	**3,1**
Radio/Other media	19	**39,6**	20	**62,5**
Clinic	12	25,0	7	21,9
CHW	4	8,3	0	0,0
General knowledge/Community members	4	8,3	4	12,5
TOTAL	48	100,0	32	100,0

Of particular note in the above table is the relative importance of the radio as an informational medium. Almost 50 % of all the respondents considered the radio to be their primary source of information.

Also significant here was the issue raised by many of the respondents regarding their vulnerability to acquiring AIDS. Particularly striking was the number of married women who raised the issue of fearing their absent migrant husband's infidelity and the consequential risk they ran of becoming infected with AIDS. Most of the women inquired how they could recognize signs of the disease in their husbands when they returned home from their places of employment. The researchers gained a strong impression of fear and uncertainty among many of the women left behind in the rural areas.

3.4 Fertility control

One of the questions respondents were asked was how many children they thought someone in their position should have. The average figure given here was 3,39. Respondents were then asked how many years apart these children should be spaced. The range of figures given here was one to eight years with an average figure of 3,2 years.

Respondents were then asked what they thought the best method was of restricting the number of children they had or of achieving the desired spacing between children. The answers to this question are presented in Table 3.

TABLE 3: CONTROL OF FERTILITY BY AREA WITH/WITHOUT CHWs

Methods of controlling fertility	Areas with CHWs		Areas without CHWs	
	N	%	N	%
Don't know/Refuse to answer	10	20,8	6	18,8
Family planning	32	66,7	24	75,0
Traditional methods	5	10,4	1	3,1
Abstinence	1	2,1	1	3,1
TOTAL	48	100,0	32	100,0

Respondents were then asked what they thought about family planning and family planning clinics. Almost 70 % of the respondents expressed a positive attitude to family planning.

The negative issues raised around the idea of family planning by the respondents mirrored those prevalent in the white communities to some extent. Respondents who opposed family planning either had religious objections, felt it promoted promiscuity or felt that the health of the user suffered. In order to get a broader idea of some of the negative perceptions of family planning, respondents were asked why they felt some people in the community opposed family planning. The responses are presented in Table 4.

TABLE 4: RESPONDENTS' VIEWS ON REJECTION OF FAMILY PLANNING

Reasons for rejecting family planning	Areas with CHWs		Areas without CHWs	
	N	%	N	%
Do not know	9	18,8	3	9,4
Health of user at risk	12	25,0	13	40,6
Fear of sterility	7	14,6	7	21,9
Husband/boyfriend/*gogo* objects	2	4,2	1	3,1
Moral objections	8	16,7	5	15,6
Political reasons	3	6,3	3	9,4
Other reasons	7	14,6	0	0,0
TOTAL	48	100,0	32	100,0

4. RESPONDENTS' PERCEPTIONS OF THE CHWs

One of the major findings of the survey was that there might not be as great a difference as might be supposed between the health knowledge in the areas with and those without CHWs. However this should not necessarily be seen as a negative reflection of the impact of the programme but rather as an indication of the relatively high level of health knowledge in the KwaZulu area as a whole and consequently of the **importance of other channels of knowledge.** In this respect it was found that the role of the clinics and of the radio as brokers of knowledge may be quite substantial (Table 2).

However the CBHP was found to be crucial when the role of the CHW as a community resource was considered. In the areas with CHWs the respondents were asked a series of questions pertaining to their perceptions of the CHWs. Respondents were asked to name the CHW in their area. In this instance it was found that only three or about 6 % of the respondents were unable to name the CHW. In two of these cases the homestead had been very recently established in the area.

Respondents were then asked if they felt that the CHW could be considered a member of their community. In this instance, 44 (92 %) of the respondents answered affirmatively, two (4 %) said they did not know, while the remaining two felt that the CHW was not really a member of the community.

A final question probed the respondents' perception of the CHW's links to the tribal authority. The question attempted to ascertain if the respondents felt that only people closely linked to the tribal authorities were likely to be selected as CHWs. It was found that 36 (75 %) of respondents felt that there was no favouritism shown in the selection of CHWs. Four respondents (8 %) said that they did not know enough to form an opinion, while eight respondents (17 %) felt that there was a link.

Perhaps the most crucial indicator with regard to the advantages of the CHWs was the response to a question on whom the respondents generally went to for advice on health matters. The responses are given in Table 5.

TABLE 5: SOURCE OF ADVICE ON HEALTH MATTERS BY AREAS WITH/WITHOUT CHWs

Source of advice	Areas with CHWs		Areas without CHWs	
	N	%	N	%
CHW	31	64,6	0	0,0
Clinic	10	20,8	14	43,8
Hospital	0	0,0	2	6,2
A community member/Neighbour	5	10,4	11	34,4
Inyanga	1	2,1	0	0,0
No one	1	2,1	5	15,6
TOTAL	48	100,0	32	100,0

A follow-up question to the one above then asked how easy it was to obtain the necessary advice when it was needed. In areas with CHWs, 45 (94 %) of the respondents stated that advice was easy to obtain, while the figure fell to 50 % (16 respondents) in the areas without CHWs. **While many of the respondents in areas with and without CHWs were relatively close to clinics and felt that advice was easily obtainable there, an analysis of the response patterns shows that the presence of the CHWs accounted for the greater percentage of positive responses in the areas with CHWs.**

5. CONCLUSION

The impressions formed by the researchers through their daily contact with the CHFs, CHWs and community members are given below. The impressions are not quantifiable and are necessarily rather subjective, but in keeping with the "pilot study" nature of the research, it was decided to include them. They should be taken as broad indicators at best.

Poorly developed formal health infrastructure makes a programme that seeks to enhance access to health services highly relevant to the circumstances of many of the peoples in KwaZulu. As such the researchers felt that the programme fulfilled many of its initial aims. Furthermore the presence of the CHWs in communities creates a link between the local people and the formal health services that can serve as a two-way communication channel. However the researchers felt that the potential for enhancing the inherent "bottom-up" communication channel had not been fully explored. Since the programme is designed to be flexible, it should have little difficulty, at an educational level, in adapting to changing circumstances.

Perhaps the best indication of the project's relevance was the respondents' articulation of the desirability of the programme. Thus people in areas without CHWs frequently inquired from the researchers about the possibility of "CHWs" being instituted in their areas.

The project may be regarded as effective in that it meets many of its primary aims and also appears to enjoy a degree of credibility among those it seeks to serve. The credibility is further enhanced by the fact that there does not seem to be any bias in the allocation of the CHW resource within the areas where the CHW operates. Where a perception of "favouritism" in the selection of CHWs was articulated, it was not expressed in a way that indicated that the respondents felt that the situation compromised the effectiveness of the programme. In so far as the programme makes optimal use of the available resources it appears to be relatively effective.

Researchers did however feel that the local *inyangas* are a source of health knowledge who have not been as thoroughly incorporated into the programme as they could have been. None of the respondents were heard to complain about the quality of the service they received from the CHWs but some complaints were heard about the inadequacy of the service.

The CBHP operates within a specific political context beyond the control of the implementing agent. While the macropolitical context has a direct bearing on the operation of the CBHP, the constraining factors are fully realized by the implementing agent and it would be superfluous to comment further here. Likewise the environmental constraints, particularly that of the acute incidence of poverty and isolation, are appreciated by the implementing agent.

An analysis of the survey data shows that except in a few instances, the health knowledge was not much greater in areas with CHWs than in areas without CHWs. In fact there were instances in which people in areas without CHWs had a better knowledge of certain health-related issues, for example the spreading of AIDS.

While the educational role of CHWs should not be neglected, the findings of this part of the research indicate that the health-educational needs of the people of KwaZulu may not be the health issue of cardinal importance. As such the concentration of the CBHP as it is currently configured does not really address the fundamental needs of the people it serves. Implicit in the data is a recognition by the respondents of the central causality of poverty (both personal and infrastructural) in poor health.

Provision for the infrastructural needs of the people should be regarded therefore as the primary task of health officials, while the training of the CHWs should be directed toward infrastructural extension.

PART II: Paper 4

EVALUATION OF TB FLIP CHART

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1. INTRODUCTION

The KwaZulu Department of Health developed a number of flip charts as teaching aids for community health facilitators (CHFs) and community health workers (CHWs). At the time of the study nine flip charts had been completed, covering *inter alia* the following themes: diarrhoea, smoking, tuberculosis (TB), weaning and oral rehydration. More would have been developed but it was decided first to evaluate one flip chart in the field in order to determine its effectiveness.

The flip charts were designed as an integral part of the comprehensive Community-Based Health Programme (CBHP). Normally they are used in conjunction with group discussions and the presentation itself is therefore not to be ignored. However it was decided to focus in this study on the pictures in the flip charts to determine to what extent they were understood by the viewers. The aim was to suggest guidelines mainly for the improvement of the visual aspects of flip charts.

2. NATURE OF THE FLIP CHART

The flip chart "The Story of Shandu and Mbambo" (APPENDIX), which covered the subject of tuberculosis was selected for evaluation. It consisted of a series of 16 photographs in a story format. In the first part (five pictures) the problem is introduced. The second part (11 pictures) provides the answers to the questions posed in the first part - a solution to the problem. The captions which support the various pictures serve as a brief description of the story.

3. METHODOLOGY

A qualitative approach was followed in the execution of this part of the study.

An interview schedule was designed in which primary questions were posed, and where necessary additional probing questions were asked in the field.

The respondents were drawn from available adult members of the public in the four areas of study. Focus-group interviews were conducted with nine groups of approximately eight respondents each. The method of group interviews was used rather than individual interviews which would be unnatural for group-oriented rural people. A further benefit of focus-group interviews is that it generates more information as a result of the group interaction.

Apart from the group interviews (conducted with the assistance of a translator), some elements of participant observation were introduced.

4. THEORETICAL BASIS

As far as the theoretical framework was concerned, it was decided to base the interview schedule on the various functions of pictorial communication. In this regard the model of Jakobson (intended originally for the analysis of language and adapted by Peters (1977) for pictorial communication) served as a framework for evaluating the visual material. The following functions can be differentiated and will be discussed briefly: the referential, phatic, conative, expressive, metalinguistic, poetic and bardic (functions).

The *referential* function refers to the objects in the representation, and the primary question is whether the objects can be easily and clearly identified by the viewer.

The *phatic* function is concerned with the ability of the representation to capture the viewer's attention. It refers therefore to those visual elements that aim at establishing contact with the viewer.

The *conative* function involves aspects of the representation that lead the viewer to interpret the message in a particular way. The main concern is whether the intended message has been conveyed to the receiver.

The *expressive* function refers to the way in which the communicator conveys the intended attitudes and actions. It is necessary to determine in this case whether the message made an impression on the receiver and whether its representation appealed to him.

The *metalinguistic* function involves any sign or symbol fulfilling an additional

interpretative function. This concerns the question whether the symbolic or metaphoric 'codes' (visual or verbal) are clearly understood and functional.

The *poetic* function refers to the aesthetic features of the representation and concerns the question as to whether the viewer found the representation aesthetically acceptable. (Previous research in this regard, however, showed that black rural people tended to view the idea of aesthetica in terms of the acceptability of the message, rather than in terms of aestetical elements such as colour, composition, etc.)

Since the different functions overlap to a large extent and should not be seen as separate entities, they were treated as a unit and will be reported on in an overall fashion.

5. FINDINGS

In the discussion that follows the findings concerning each picture will be presented separately after which the findings in respect of the flip chart as a whole will be considered.

5.1 Picture 1: Shandu and his coughing friend, Mbambo

Most of the respondents realized that illness was portrayed in this picture. They were able to grasp the idea of discomfort, unhappiness, suffering and pain. The condition of the person was recognized by some of the groups as tuberculosis on the basis of signs such as coughing, chest pain and leanness. However some of the groups attached connotations to the picture which were not intended by the communicator. For instance, the man coughing was interpreted as a man smoking a cigarette and sniffing benzine. Some of the respondents were further confused about the nature of the illness, since they focussed on the condition of the man's skin, interpreting it as either a rash, spots or sores.

It was noticeable that in all the groups a strong aversion was expressed towards the idea of illness and frequent references were made to the unhappiness of the people portrayed. In this regard, the picture made a successful appeal.

5.2 Picture 2: Shandu's loss of appetite

The gesture of the man indicating that he did not want the food was understood by all the respondents. However different reasons were offered for his loss of appetite: some mentioned that loss of appetite was a sign of tuberculosis but there were

also references to illness in general, use of alcohol and stomach-ache.

The representation seemed to appeal to the respondents. They appreciated the cleanliness of the house and of the surroundings. It was also possible for them to identify with the situation of a woman serving food indicating the traditional caring role of women. However they were unhappy about the man's refusal of the food because of his illness, and concern was even expressed that he would lose weight.

5.3 Picture 3: Shandu's loss of weight

The respondents observed that the man had in fact lost weight. In one of the groups they analytically connected his illness with the illness of his friend. His feelings of worry and unhappiness as well as his loss of weight seemed to convince the viewers that there was cause for concern.

However certain aspects of the picture seemed to mar its general effectiveness; for instance, mention was again made of the man's skin condition. It was also interesting that the pair of shoes was sometimes (incorrectly) viewed as high-heeled and therefore not suitable for a man - it could be that the camera perspective caused this impression. Moreover, for the first time some respondents were confused as to the identity of the male model actor and thought that he was Mbambo.

5.4 Picture 4: Coughing up sputum

In general the groups agreed that the man was coughing into his handkerchief (tissue, cloth, cottonwool) and that he realized that something was wrong. However some respondents were of the opinion that he was blowing his nose. Some perceived the spot on the handkerchief as yellow sputum, but mostly it was perceived as blood. The connection between his illness and his sputum was clear to some, while others did not know what caused the sputum. One should also take note of the comment heard in one group that the cause of the man's illness was bewitchment.

5.5 Picture 5: Shandu at the grave

All the respondents recognized the grave and most of them connected the grave with a death due to tuberculosis. They were, however, not clear on who the deceased person was, for instance a father, friend, brother or an uncle. There was again confusion regarding the two male models: some thought that the man standing at the grave was Shandu, while others thought it was Mbambo. The people who realized that it was Shandu generally thought that Mbambo was the deceased.

In one group the respondents stated (correctly) that Shandu was visiting his uncle's grave, indicating that they had read the caption.

The emotional appeal implicit in the picture (loneliness, fear, sadness) was successful. However one person mentioned that it was not typical for people of their culture to visit graves. Some respondents identified the cross on the grave as a symbol of Christianity.

5.6 Picture 6: Doctor examining Shandu

The objects such as the screen, bed and the stethoscope were effective in conveying the concept of a hospital, and the respondents realized that it was a doctor examining the person's chest with a stethoscope. Although some of the respondents recognized the person as Shandu, many thought that it was Mbambo, the man who was coughing in the first picture.

5.7 Picture 7: Shandu's sputum specimen

In one group some of the respondents thought that the man had been drinking alcohol and was holding an empty glass. However in general they realized that he was coughing/spitting into a bottle. Some of them said that it was better to cough into a bottle than into your hand. Only in one group did the respondents refer directly to the examination of the sputum, indicating that they had read the caption.

It is important to take note of the comment that the man's forehead was too big which indicates that the camera perspective might cause problems for some viewers.

5.8 Picture 8: Doctor discussing X-ray with Shandu

It is interesting to note that all the groups recognized the X-ray and realized that the doctor was explaining about the illness. However the message of early diagnosis and treatment which was emphasized in the caption, was not fully understood. Although some of the respondents perceived the man's condition as improving, many of them also said that he was seriously ill and was going to die - the opposite of what was indicated by the picture (and the caption).

5.9 Picture 9: Nurse explaining Shandu's treatment to him

All the groups agreed that a nurse was explaining to the man how to take his

medicine. The non-verbal cue of the nurse holding up three fingers was very effective in attracting the attention. There was nevertheless some difference of opinion regarding the message of the three fingers. Some respondents said that the medicine had to be taken three times a day, while others thought it had to be taken three times a week. Since no reference was made to the nurse's instructions regarding regular visits to the clinic, it can be concluded that the caption had not been read.

The respondents showed understanding of the sequence of the man's visit to the doctor and the nurse's explanation of his treatment. The idea that the man would be treated and feel better, appealed to them. They seemed to identify with the patient - even indicating that they would dislike it if the man did not take his medicine and became severely ill.

5.10 Picture 10: Shandu's visit to the clinic

The representation in this picture seemed to create uncertainty and confusion. Since there were not enough signs or signals showing that the building portrayed was a clinic, it was not surprising that the respondents described the destination of the man as a shop, his place of work or his home. However some of the respondents identified the building as a hospital on the basis of the government car parked in front of the building or the people sitting on the bench.

5.11 Picture 11: Shandu at work

All the groups agreed that the two men were at work in a garage or "machine shop". They realized that the man was back at work, but their perception of the situation varied. Some were adamant that they were working and not talking. Others said that they were talking about the man's recovery from his illness ("he is better", "he is well"), while others thought that they were talking about the work. The comment was made in only one group that the employer must give the man permission to fetch his medicine. This was the only indication that the respondents took notice of the caption. There was no mention of the nurse visiting the employer - which could be gleaned from the captions but not the picture.

5.12 Picture 12: Shandu's family at the clinic

The responses indicate that there was some confusion as to WHO and WHERE the people were. In general the people were seen as a family (the two women were sometimes described as the man's mother and the *ugogo*). Some of the respondents thought that the people were at home, while others said that they were at the clinic/

hospital. It seems that there were no clear cues for the identification of the clinic. However further probing revealed that the respondents realized that the double doors and the steps were not typically part of a house, and therefore had to be part of a hospital/clinic.

Reasons mentioned for the visit to the hospital included that the man's family was going for a check-up; they were taking an ill baby to the hospital; and, they were going to the hospital for TB treatment because "they already have TB, because if one person in the family has TB everyone gets it".

5.13 Picture 13: The early diagnosis of Shandu's daughter

It was generally agreed that the daughter (some thought it was a boy) of the man who took his family to the clinic was being examined by the nurse. Most of the respondents thought that the child was ill, but some thought that the nurse was examining her to **determine** whether she was ill. It would seem that the caption did not attract the attention, since none of the respondents mentioned that the child was in fact receiving treatment and consequently did not become seriously ill.

5.14 Picture 14: Shandu's visit to Mbambo and the *inyanga*

All the respondents recognized the traditional healer as either an *inyangă* or an *isangoma*. They also recognized the objects in front of the *inyanga* as representative of the place where he keeps his medicine and where his patients consult him. The main reason for the two men's presence at the *inyanga's* place, according to the respondents, was that either one or both of them came to fetch medicine. In one group the respondents thought that the man in the middle (Shandu) was the *inyanga's* assistant.

The actual message that Shandu convinced Mbambo and the inyanga that Mbambo had TB and should go to the hospital, **was fully understood by only one group.**

Although most of the respondents recognized Shandu and Mbambo, they were not always able to distinguish between them.

Some of the groups expressed unhappiness because of the men's visit to the *inyanga*. The comment was made that perhaps the *inyanga* can treat some illnesses, but not TB.

5.15 Picture 15: Mbambo's visit to the hospital

Many of the respondents realized that the man who was ill (the coughing man/the man who had "died") was at the hospital. All the respondents understood that the man was being examined by the nurse - some even mentioned that his blood pressure was being taken but they did not know why.

It seems that there were certain factors in the picture which interfered with the interpretation of the message. Firstly the taking of blood pressure is not directly relevant for TB since it is not a technique used specifically for the diagnosis of tuberculosis. Furthermore, the admission procedure as portrayed was not typical of this kind of situation. (It is unlikely that registration and examination of the patient would take place at the same time and place.) It was also noticeable that none of the respondents referred to the admission situation and it can be deduced that the background distracted the respondents' attention from the nurse and patient who were the focal point of this picture.

5.16 Picture 16: Mbambo is feeling better

Most of the groups agreed that the man in the picture had been ill, that he was better and showing with his hands that he was better. These respondents were able to identify fully with the situation, and their involvement with the story, which had been noticeable throughout the discussion, was particularly evident in respect of this picture. They expressed their happiness with Mbambo's recovery by miming his thumbs-up sign and generally showing their joy.

However a few of the respondents persisted in their original view of the story, i.e. that the man was sniffing benzine. Some of them associated the benzine sniffing with illness and suffering, while others interpreted the man's happiness in this picture as an effect of the benzine. It is therefore clear that these people did not follow the story.

6. SUMMARY AND GUIDELINES FOR VISUAL MATERIAL

The respondents liked the story very much. The images were largely understood within the context of their society, and the potential problem that the images would be seen as separate entities, therefore did not materialize. Even in cases where the story was not fully understood, or where the exact relation between certain images was not clear, the respondents did understand that a story was being told.

In the main they followed the story of tuberculosis and felt that the line of

suspense was maintained and ended in a climax. Although certain aspects of the story were felt to be obscure or confusing, matters that had not been clear initially (such as uncertainty about the nature of the man's illness in the first picture) were in most cases explained later on: thus the story became clearer as the narrative developed. In a few cases respondents did not understand that TB was the theme of the story. For example a few of them maintained, from beginning to end, that the story dealt with the problem of sniffing benzine, while others said that alcohol abuse was the theme.

There was general confusion about the main models/actors, Shandu and Mbambo. It is important that such problems be eliminated by clearly distinguishing the characters from one another, for example by making them wear contrasting clothing or by selecting persons with clearly distinguishable facial features.

In spite of certain problems, it is clear that the narrative format can be used to good effect when conveying a message. **It is recommended that the narrative structure be kept as simple as possible and that leaps in terms of time and space be made with care.** There should be clear connections and linkages between the images, although it is also important that every image should work on its own and convey its part of the message clearly.

The visual image was felt to be very attractive, and the respondents said that it was a pleasant and friendly medium. Particularly because the photographs were true to life, the visual image proved to be a credible and convincing medium of communication.

Various facets of the image will now be discussed in terms of the functions of the image.

Although the respondents were not specifically asked to identify the objects in the image, they had to recognize the objects in order to interpret the message of the picture. Sometimes they were not quite correct or clear about an object, but it seldom hampered the interpretation of the message. The only image that can really be indicated as a problem is the building in Picture 10 which many of the respondents did not identify as a hospital. In this case the image does not contain clear clues informing the viewer that the building is a hospital. **When compiling the visual images it is important for the objects in the image to be clearly recognizable and for the target community to be familiar with them.**

It appears from the reaction of the respondents that the images generally attracted attention and that they had the ability to establish and maintain contact with the

viewer. They were considered to be attractive, and they served as stimuli for encouraging discussion. With a few exceptions the respondents understood the message of tuberculosis.

However although the concept of disease and treatment was clear to most of the respondents, it is to be doubted whether the idea of early diagnosis was fully understood. This can on the one hand be ascribed to the fact that the target community mainly focussed on treatment, and on the other hand that the written text highlighting the importance of early diagnosis and treatment was not taken into account by the respondents when they interpreted the message. Although the image in the case of the flip chart is the primary carrier of the message, certain matters can be expressed only with difficulty and consequently the written text has to be relied on to a great extent. (See for example Pictures 8 and 13 in this regard.)

The various images are generally concrete and direct and do not require a high level of visual literacy. The clues and symbols that were used to facilitate the interpretation of a message were generally understood. However a few of the images were more complex and required a higher level of interpretation; for example Picture 10 where many of the respondents could not identify the building as a hospital. One had to follow the narration and **infer** that the building should be a hospital. As far as the interpretation of the work situation was concerned (Picture 11), many respondents did not understand that Shandu's medical treatment was being discussed with his employer.

Therefore, although the images are connected to render a clear story line, it is recommended that every individual image be so depicted that it can be understood independently of the others.

The indicators are used in such a way in the image that the receiver will arrive at a particular interpretation of the image. However it is also important to bear in mind that people observe selectively and that they tend to interpret things from their own frame of reference. When the respondents' observation of the visual material is noted from an intercultural perspective, it is hardly surprising that they projected their cultural background and own life world into the image. The following serve as examples:

- The view that the sick man (Picture 4) had been bewitched;

- The view that the two friends in Picture 14 had gone to fetch medicine from the *inyanga*.

It is therefore recommended that the image message be formulated and depicted in a simple, clear and explicit manner. Abstract, indirect and hidden messages place too high demands on the interpreting ability.

The way in which the images were depicted appealed to the target group. They were generally felt to be credible, which made it possible for the respondents to identify with them. The concept of discomfort, unhappiness, pain, suffering, worry, anxiety, loneliness and heartache created in respect of the condition of ill-health, appeared to have made a strong emotional appeal to the respondents. The fact that the story ends positively also makes it possible for the viewer to share in the happiness and joy of the character, Shandu.

The approach which takes the target's life world into account, is successful and is strongly recommended. A nationally or even internationally oriented media product is often too general and in an attempt to reach "everybody" it runs the risk of reaching nobody.

Although the approach in which models act as spokesmen to propose "ideal action" appeared to be successful in this investigation, it should be stressed that the situation which is depicted should be practicable and realistic from the target groups's point of view.

In order to reach the target group, one should therefore take account of their culture and experience: what is acceptable to one group and appeals to them, may not at all appeal to a second group. It should also be borne in mind that traditions change all the time and that the degree of acculturation should be heeded. It was for example interesting that many of the respondents felt that the supposed visit to the *inyanga* was unacceptable since they held the view that he was unable to treat TB.

It is also interesting that the image was assessed in terms of the acceptability of the message and not in terms of aesthetic matters such as colour, composition, etc. The concept of disease and matters associated with it was regarded as "ugly" and as something that should be rejected, while the idea of rendering assistance elicited positive reactions and was regarded as "beautiful".

Another matter about which appreciation was expressed, was the wife fulfilling women's traditional caretaking role, while dissatisfaction arose from the apparently unhealthy skin, as well as the man's "large" forehead (Picture 4). The latter two perceptions indicate a lack of comprehension of the images concerned.

As far as the poetic function is concerned, specific guidelines can be laid down only with difficulty. **It is recommended that acceptability to the target population and effectiveness should be borne in mind in this regard.** Although the respondents for example found the idea of disease "ugly" (unacceptable), the message was effective and struck home.

It was evident that the captions were not very functional. Although they have a strongly supportive function and are in certain cases essential for fully understanding the message, they were seldom read by the respondents. This may on the one hand be ascribed to the fact that some of the respondents were illiterate; and on the other hand to the fact that the captions are not placed prominently and the letter size and letter type are inadequate. In certain cases the content of the text was divorced from the image and consequently did not complement or explain the image. For example, in Picture 11 - depicting the job situation - the text states that the nurse visits the employer, but there is no indication of this in the image. It is therefore recommended that captions should be written with great care and expertise.

Symbols or signs can also be used to allow certain aspects of a message to emerge more clearly. Symbols can have a metacommunicative function by elucidating certain aspects of a message, for example a red cross at a building can indicate that it is a hospital. An emblem that is unique to a programme such as the CBHP, can also be included in every image.

7. CONCLUDING REMARKS

The flip charts can generally be regarded as effective. People can identify with them and follow the message in the main. The manner in which the message is presented also catches the attention.

On the whole the respondents understand the non-verbal clues and they can identify strongly with the feelings of concern, loneliness, fear, heartache, unhappiness and happiness. In this way they become involved with the message. The importance of pretesting is once again demonstrated - the target community was involved in the development of the media product and this increased its chances of being effective.

Although the focus in this investigation was on the comprehensibility and effectiveness of the visual image, the evaluation of the flip charts cannot be divorced from the group interaction which forms part of the representation of the flip charts. Therefore expertise in leading a group discussion is also required.

Communication should also be seen within the context of the total programme

and social environment. A multimedia approach using various media in different combinations to supplement one another, is recommended. It is also recommended that any effort at communication should be supported by a broader development plan aimed at increasing man's quality of life as a whole.

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of poverty. According to the Independent Development Trust the number of the very poor in South Africa is in the region of 10 million. Unless poverty levels are reduced, the housing problem will remain endemic.

Fighting poverty has gone through a number of shifts in emphasis. In the postwar years the accent was on economic growth, in order to repair the damages of the war. Such growth strategies worked in countries with a high skills base, but did little to erase inequalities in developing nations; wealth did not "trickle down" as expected. In the 1970s the emphasis shifted to the provision of better health services, nutrition and, above all, education. In the 1980s, in addition to the basic social services, the mobilization of the capacity for work of the poor received attention. In the 1990s, it seems, deregulation, decentralization of power, and the promotion of the informal sector are seen to be the tools best suited to eradicating poverty.

South Africa has to come to grips with the housing crisis of the black and coloured citizens, otherwise the country's problems will worsen considerably. South Africa also has to deal with embracing a future economic theory. The opposing economic theories of communism *versus* capitalism seem now settled in favour of a free market approach. It remains to be seen whether capitalism and free market policies are identical. In the eyes of many black citizens of South Africa, capitalism is identified with oppression. The search is for a "third alternative", to which the coming constitutional indaba could pay some attention.

The ability of the poor to help themselves even under extreme adverse circumstances is remarkable. Social infrastructure and support networks in the most appalling slum conditions are intricate, though not easily detectable by outsiders. There is room, however, for much improvement in the form of logistic and skilled support. In the final analysis beating the housing crisis is not just a matter of finance and the allocation of land, important as these factors are. We suggest that multidisciplinary teams should approach the challenge of poverty in a professional manner by applying and testing their skills on a Third World situation and then reconciling these skills with the highest bidder in the First World. This is an education process which will take a few generations to complete.

other high-density accommodation.

However the contention that AIDS will turn a housing shortage in a housing surplus by the turn of the century cannot be supported by the presently known trends; only the type of housing needed, may change.

5. BREAKING THE POVERTY TRAP

The World Development Report (1990) on poverty published by the World Bank indicates that there are at present some 1,16 billion poor in the world, i.e. people with an annual income of less than $350. While the bank believes that this global number can be reduced to 800 million by the year 2000, such a reduction of poverty is not foreseen for Sub-Saharan Africa. In fact the incidence of poverty in this region is expected to rise from 175m in 1985 to 270m by the year 2000. Thus, by the turn of the century, 33 % of the world's poor would live in Sub-Saharan Africa. This trend is reflected in the development of the real per capita GDP for the region, which declined from 3,2 % between 1965 and 1973 to -2,2 % between 1980 and 1989.

The World Bank forecasts on poverty for the next ten years exclude the AIDS factor, the potential deep recession in the United States, the expected collapse of the Japanese real estate market, and the rising cost of energy in the wake of the Gulf crisis. (For example, this rise in costs adds $210m to the annual oil bill of a poor country like Bangladesh.) These factors, together with the immense repair bill for Eastern Europe at the expense of investments elsewhere, could cause a strong escalation of poverty in many developing nations, and could bring the African continent to its knees. In our assessment the present incidence of poverty of 20 % of the global population could rise to 30 % over the next ten years.

A new democratic order in South Africa will not make poverty disappear. Neither will the granting of universal franchise. The promises contained in the Freedom Charter carry a price tag which cannot be met by any government in power. Once this is grasped by the black community the current wave of violence could be followed by an even worse one. A good illustration is provided by events in Eastern Europe after the demise of Marxist economic theory. Communist dictatorship, among other things, provided full employment (without profitability), free social services, low inflation and affordable prices for essentials. After its collapse, unemployment is rife, food prices have trebled, and inflation is on the rise. The transition to western standards based on a free market economy will prove to be a painful process.

The low-cost housing shortage in South Africa is inextricably linked to the incidence

AIDS is an infectious disease with - at present - well-understood limits to its transmission. Each of these transmission modes has an individual S curve for specific target groups. The final S curve is the compounded effect of these sets of S curves. What we do not know at this stage is what factors ultimately dictate the lengthening of doubling times, which at present hover around eight to ten months. We are still on the steep part of the curve, but do not know for certain when the curve will inflect.

The middle ground is held by the epidemiologists and by the actuaries, who apply their professional skills to forecasting the epidemic. According to these forecasters AIDS in South Africa is quickly catching up with the epidemiological characteristics found in countries to our north, where the epidemic is four to five years ahead of South Africa. Epidemiologists like Padayachee and Schall expect some 500 000 HIV-infected persons by the end of 1991, and a doubling time of eight and a half months, showing signs of lengthening. OLD MUTUAL actuaries calculate an incidence of five to ten million HIV positives by the turn of the century, and some 320 000 dying of AIDS in that year.

The AIDS Policy Research Group, of which I am a director and which consists of doctors, an economist, an anthropologist, a legal expert and a policy analyst, does not take a firm position on actual forecasts but reports these with the best comment it can make. It does however subscribe to the policy of being prepared for a worst-case scenario in the light of informed, but not of sensational analysis.

Finally, AIDS is an unprecedented disease for which we have data only over the past ten years. To take a definitive position on its future course is neither scientific nor responsible from any point of view, particularly since its course is so influenceable by human action. Recent evidence indicates that the epidemic is still growing and will be prevalent well into the next century. There is no cure in sight, and some virologists contend that the nature of the virus renders the finding of a vaccine or a cure highly unlikely. In the event of a cure being found, it could be financially unaffordable to those countries where the incidence of AIDS is the highest and growing fastest.

AIDS will affect housing and community development in a number of ways. Financial institutions with a high exposure in small loans to black borrowers (one institution is exposed for R2 billion) will see a steep increase in defaults on bond payments after 1995. Since the majority of AIDS casualties will be in the 15 to 49 years age bracket, a high percentage of these will be breadwinners. Their deaths will leave their dependants unable to meet current commitments. The number of orphans and single-parent families will increase, which will create a rising demand for flats and

seldom accommodate innovative approaches. How the present crisis in black local government will affect this project remains to be seen.

One basic problem of an integrated local-level development project seems to be that such integration of a large number of diverse basic community functions does not exist on other levels, least of all with the central authorities. The accommodation of schools and health facilities in such a development project has to satisfy the requirements of vast bureaucracies, each with a separate hierarchical structure. A further complicating factor is that the policies on education and health care, as in any other area, are fluid and subject to future change resulting from the negotiation processes. To maintain continuity in the basic functioning of society, the government rejected the concept of an "interim" government until a new constitution is accepted.

Decisions of a fundamental nature, such as on privatization or the devolution of power, are clearly hampered, since such decisions could be seen as pre-empting negotiated solutions. For these reasons, health and educational services in the Emaphupheni context will initially have to be of a provisional and experimental nature, in order to get the process started.

4. AIDS, HOUSING AND URBAN DEVELOPMENT

Before turning our attention to the main issue - the alleviation of poverty as the root solution to the housing and community development crisis - first a word on how the AIDS pandemic may affect housing and urban development. The forecasts on how the AIDS pandemic will unfold in South Africa vary widely.

On the "conservative" side some eminent demographers, among whom a global authority such as John Bongaarts of the Population Council in New York, maintain that AIDS in Africa will have no significant impact on demographics in the short to medium term (five to ten years) and possibly not even in the long term. Bongaarts contends that in spite of a high incidence in certain countries in Africa - the so-called "AIDS belt" - these populations are still growing, since fertility rates still overcompensate for AIDS-related mortality rates. Also age distribution will not be seriously affected by AIDS.

On the "sensationalist" side certain forecasters spell doom and the "wiping out" of up to 70 % of African populations. The basic mistake made by these forecasters is that they do not understand the nature of exponential growth in a natural environment, in which various variables determine the final shape of the S curve. If AIDS were a contagious disease like the common cold, such a wipe-out is conceivable. But

of financing housing and community development. In this experimental project aspects of education, primary health care, job creation and other community services are to become part and parcel of the development process. In the words of a representative of the PERM:

> "Emaphupheni is an attempt to integrate HOUSING DEVELOPMENT into the totality of a community's needs. It focuses on the basic needs of HOUSING, SERVICING, HEALTH, EDUCATION AND EMPLOYMENT. The community is involved in the planning, implementation and ongoing management of the development. Formal housing at the lowest possible cost will form the basis of the development. It is intended to contribute to finding solutions to the mismatch between affordability levels and the housing supply."

Financial viability of such an integrated development is a key concept, because without it a project of this nature is neither sustainable nor replicable on a nationwide basis. Innovative financing mechanisms are explored, such as group loans through rotating credit clubs like "Stokvels", or through ratepayers' associations. The main target market is low-income earners, and people with incomes from as low as R350 a month will be able to participate. Services will include water-borne sewage, reticulated water to each site, electricity and hard-surfaced roads. Innovative and labour-intensive methods are applied. A new concept is the "courtyard", a shared space between dwellings for a variety of communal but undetermined uses. This replaces some 60 % of the formal streets and leads to substantial cost savings.

Stands will vary in size, and owners will obtain full 99-year leasehold rights to individually determined stands. A range of houses will be offered, from a basic 30 square meter "starter" house up to houses of 55 square meters; add-on options are available. The township design for the first phase of 550 housing units includes provision for two schools, a primary clinic, a church, two parks and a community centre. An industrial hive complex for some 70 small industrialists is planned on a site adjacent to Emaphupheni.

Apart from recent unrest and violence on the East Rand, this innovative project, not surprisingly, had to deal with a number of stumbling blocks. As can be expected powerful interest groups and constituencies within the community, as in most townships, do not always see eye to eye. There is much squatting in and around Daveyton and the need for new dwellings and services is as acute as anywhere else. It was almost pathetic to see how, in the early stages, squatters demarcated plots for themselves with cotton threads, forming a random pattern of sizes and shapes. Then there is the multiplicity of regulations and municipal laws and ordinances which

development bank for the ANC with an initial funding of some $5 billion (R12,5b). This initiative could complicate the development of a unified strategy, since it can hardly be expected that the two development banks would subscribe to compatible development philosophies. More substantive information on the proposed ANC bank is required in order to assess the impact of such an initiative on the future development of the new South Africa.

The DBSA, it seems, is shifting its attention more and more to the urban areas. According to its latest annual report, the bank has made the alleviation of poverty its key focus for the future. While to be applauded, this shift in policy direction is not yet reflected in the bank's actual spending pattern. Of the present programmes valued at R1 203m - R1 214m, 99,1 % is spent in the "homelands" and a mere 0,9% (R11m) in the RSA. Of the total investment, R959m (79 %) was directed at bulk infrastructure (R371m on road projects alone) and R255m (21 %) at people-related projects, such as training and education. It would probably not be far off the mark to assume that an ANC development agency would favour a complete reversal of the above spending patterns. With sizable sums at its disposal such a bank would become a major player in development.

In the HSRC housing report it was strongly recommended that the state housing subsidy system in all its forms should be gradually phased out, and that state funds in future be mainly allocated to the provision of serviced plots to eligible indigent families. An annual allocation of R2 billion would create between 200 000 and 320 000 new serviced plots. This would go a long way towards resolving the land shortages. There are indications that this approach has found acceptance at cabinet level. The SA Housing Trust, or alternatively the RSCs, could act as a land bank, administering the allocation of plots and supervising their servicing. The actual work should be contracted out to private local operators.

Owners of serviced plots in planned settlements would have a collateral against which to borrow funds for the construction of a shelter. There would be no restriction on the type and nature of the initial dwelling erected upon occupation, provided a scheme of upgrading within a certain time limit is provided by the owner. Such a policy would accept and accommodate the inevitable squatting process in a manner which does not prevent its future upgrading to viable urban communities. There seems to be a wide range of consensus among developers on this point.

3. PROGRESS AND PROBLEMS IN A COMMUNITY DEVELOPMENT PROJECT

In Daveyton on the East Rand the PERM developed and implemented a novel way

South Africa and the homelands, much of the urbanization dynamics could work itself out within these new geographies, instead of being predominantly directed to the present metropolitan areas. These are in my estimation important considerations in terms of arriving at a viable urbanization and community development strategy.

Next to finance, lack of suitable and serviced land is the most serious bottle-neck in new housing and community development. The timely allocation of such land on the required scale may at present be complicated by the fluid constitutional processes. As long as the future regional and local boundaries are not demarcated, a long range land allocation plan may not be possible. In this context one must welcome the Urban Foundation's R3 billion rural land redistribution plan, requiring the repeal of the Group Areas Act, the Land Act and the Prevention of Illegal Squatting Act. It clearly spells out that a new deal in terms of land allocation is required, if the legitimate space requirements of a doubling and urbanizing black population are to be met.

Failing such a pro-active strategy, it should not be surprising if illegitimate occupations become more widespread and common than we have witnessed to date. Land is, of course, not only needed for residential purposes, but also for grazing and small-scale agriculture. Land redistribution is high on the agenda of the ANC, and its rather ambiguous terms have given rise to some anxiety among present landowners. It would be regrettable if no decisive steps were taken during the negotiations (which could take a few years) regarding the allocation of an adequate supply of residential urban land. This would cause delays in black urban development which we can ill afford.

The accommodation of an influx of 10 to 14 million people requires considerable co-ordination between a large number of local, regional and central authorities. Such co-ordination, irrespective of its constitutional timing, requires a broad but integrated urbanization strategy. In such a strategy, all aspects of community development in the widest sense, the provision of essential bulk services such as electricity, transport, water and telecommunications, and their reticulation, are drawn together within one overall co-ordination agency. We perceive this to be a role for the Development Bank of Southern Africa.

This call for co-ordination is not intended to be a plea for central planning or the creation of detailed "guideplans". **What is required is rather the provision of clear guidelines for urbanization based on a comprehensive development philosophy. The implementation would be decentralized and should have the creation of skills, work and income for the urbanizing millions as a central focus.** Certain overseas bankers recently declared their intention to establish a

1989/90 and R3 billion in 1990/91, most of it for the benefit of middle class and elite groups. The government's contribution to black housing mostly takes the form of subsidies and loans to institutions like the South African Housing Trust and the Independent Development Trust. Therefore, it must be assumed that the backlog in black housing will increase in the years to come. Recent unrest and incidental boycotts of rent and bond payments had a negative effect on the provision of new housing by private providers.

Urbanization is the main reason why the housing shortage will increase over the next two decades. Over the next ten years some 10 to 11 million black people are expected to migrate to an urban environment, leaving behind whatever shelter they have occupied previously and requiring a new habitat. The "homeland" system is not likely to survive the coming constitutional debate, and with its demise the present financial subsidy systems may fall away, since they are seen to be part of the "cost" of maintaining apartheid. In addition the external debt of the TBVC countries of $2 billion would shift to the central coffers.

Such a development is bound to increase unemployment and poverty in the dominantly rural homelands and, in turn, will accelerate the rate of urbanization. The implications for housing are obvious. According to the Urban Foundation there are at present 80 informal settlements in the RSA, where some 7 million people live in shacks. If we assume, following the above argument, that some 14 million people will "urbanize" over the next ten years, and that only some 5 million will be housed in incremental units (R3 500 - R15 000) and 2 million in starter units (R15 000 - R35 000), then the squatter population in slum settlements in and around the present urban areas will double to 14 million. This figure represents almost 30 % of the total population of the year 2000.

Accelerated urbanization is, however, not an inevitable development. The instabilities created by large informal settlements without basic services, and other grave deficiencies in black urban communities, are exerting a strong influence on the drafting of a future constitutional dispensation. There are indications that the government's constitutional thinking is directed to the devolution of power to regional structures, as well as to the strengthening of local government. The ANC, for its own reasons, seems to favour strong metropolitan government which would treat cities as single entities.

If city management were to become integrated, Regional Services Councils (RSCs) would also lose their racial base. **If such regional entities, either as parts of a future federation or as semi-autonomous new provinces in a unitary state, were to become more economically viable units than the present split in "white"**

PART V: Paper 1

BEATING THE HOUSING CRISIS

André Spier
SYNCOM
McGregor

1. INTRODUCTION

The purpose of this progress report is not to repeat in detail the findings and recommendations contained in the HSRC Report ASS/BSS-11 of 1989: *Beating the housing crisis: Strategic options for the next two decades.* Those interested in these details should refer to that report itself. This paper will

- summarize the key aspects of the report, and update some of its data and findings and discuss some of the more recent social and political developments and their relationship to the housing problem;
- report on progress and barriers experienced in a community-based and inclusive housing programme;
- raise some implications of the AIDS pandemic for housing and urban development;
- propose a new approach to outmanoeuvre the poverty trap.

2. KEY ASPECTS AND SOCIO-POLITICAL UPDATE OF HSRC HOUSING REPORT

The need for housing in South Africa (RSA, the self-governing territories and the TBVC countries) is calculated through the backlog and future natural increase. The backlog is estimated at 1,8 million units and new demand for the next ten years at 2,9 million units. These figures tell us that in order to "beat" the housing crisis some 400 000 units need to be built annually. At a moderate estimate of R20 000 for a basic house of 50 square meters on a serviced plot, this represents an annual investment of R8 billion.

Nothing near this amount is being spent at present. The private sector's contribution towards the provision of housing to black people was estimated at R2 billion in

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consequently the potential value of an awareness programme for the local population.

d) The incorporation (as far as possible) of the prospective occupants' general needs and preferences in the design.

e) The education of the population through concerted promotional programmes.

f) The development of the complex in stages to allow for design adjustments, if certain initial concepts prove to be unpopular or dysfunctional.

g) The necessity of feedback from the occupants/population from time to time.

NOTES

1. Each index was calculated as a positive or a negative shift in attitude or as no shift at all, and the index values were +1, nil or -1. An answer to the question on, for example, maximum height in Questionnaire 1 would be compared with that in Questionnaire 2 to determine the change. An **increase** in height (also population size) would be regarded as positive, and *vice versa*.

2. Only 99 respondents were available for the completion of the third questionnaire. The effects of the worsening unrest situation in Soweto during 1990 seemed to have been responsible for this reluctance.

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	% positive	% uncertain	% negative
Questionnaire 1	47	24	29
Questionnaire 2	58	23	19
Questionnaire 3	59	22	19

The percentage of respondents who were uncertain in their responses remained virtually constant, namely 24 %, 23 % and 22 %, and can be ignored in the search for trends.

From Questionnaires 1 to 2, a significant positive change, namely 47-29 to 58-19 is found. But from Questionnaires 2 to 3 there is no significant change, namely 58-19 to 59-19.

Although there were significant positive and negative changes in the ten individual indicators, these have balanced out for the composite index difference between Questionnaires 2 and 3.

It can thus be argued that the use of the third questionnaire two months after the first two and the presentation, was useful for detecting individual indicator variations, but not as far as a composite index is concerned. More importantly, it seems as if the effect of the presentation and information session by the architectural team had not been neutralized by the effect of the two-months' outside influence.

CONCLUSION

There are successful international high-rise high-density residential projects and the lessons learnt from both successes and failures should be incorporated in the overall design of the Soweto complex. However for the purpose of this report the following matters are of importance:

a) The nature of the perceptions of the respondents.

b) The fears that developed during the two-month period before the last questionnaire that the complex would be unsafe, would lead to loneliness and neighbourhood conflict, and would not provide excitement or social enrichment.

c) The general positive swing in perceptions after the presentation -

presentation, which means a negative attitude. After the presentation, the positive as opposed to the negative percentages changed to 57 % as against 20 %. Therefore, a positive swing was noticed and this was maintained (56 % as against 20 %) in the final questionnaire.

7.4.6 Summary

In summary the changes in the indicators between the various questionnaires can be indicated as follows:

TABLE 2: TRENDS IN PERCEPTIONS

Indicator	Nature of changes between questionnaires		
	1 & 2	2 & 3	1 & 3
Socially enriching	+	-	same
Provide	-	+	slightly +
Lead to loneliness	+	-	same
Exciting	+	-	slightly +
Noisy	+	+	++
Lead to neighbourhood conflict	++	-	+
Lead to crime	slightly +	+	++
Safe place	+	slightly -	+
Be vandalized	+	+	++
Bad place for children	+	same	+

It can be seen that there were generally positive changes registered between Questionnaire 1 on the one hand and either Questionnaire 2 or Questionnaire 3 on the other. But the changes between 2 and 3 seem to vary to such an extent that they may cancel any indication of a trend.

The construction of a composite index may elucidate the matter.

7.4.7 Composite index

If all ten indicators are given equal weight and all positive responses are combined (as are all the negative ones), the following composite indices for the three questionnaires are found:

ged to 43 % and 26 % respectively, reflecting an expectation of a less noisy environment, although still more respondents expecting noise, than ones who did not. In the third questionnaire, even less noise (24 % as against 46 %) was expected - a strong positive change.

(f) Leading to neighbourhood conflict

In this regard, more respondents (38 %) initially thought the complex would cause such conflict than those who did not (35 %). A very strong swing occurred after the presentation in so far as only 9 % now thought it would and 67 % that it would not. This trend was reversed considerably to 27 % as against 53 % in the third case, although there was still an overall positive trend.

(g) Leading to crime

The 35 % respondents mentioned in Questionnaire 1 who thought that the complex would give rise to crime, decreased to 29 % in Questionnaire 2, while the percentage who thought that it would not, decreased from 39 % to 37 %. This slightly positive trend was amplified by a further positive change to 16 % as against 53 % in the final questionnaire. However about a third of the respondents remained uncertain.

(h) Safe place

Thirty-nine per cent of the respondents were initially of the opinion that it would be a safe place and 23 % not. This changed to 60 % as against 16%, which reflected a positive trend, i.e. an increased perception of "safe". This trend was reversed with a 54 % as against 13 % division in the final instance. However the overall trend - from Questionnaire 1 to Questionnaire 3 - was still quite positive.

(i) Being vandalized

The nearly equal division of opinions regarding expected vandalism in Questionnaire 1 (35 % expecting it as against 39 % not) changed to 25 % expecting it as against 42 % not, in Questionnaire 2.

This decrease in the expectation of vandalism was continued to a 23 % as against 50 % response in the third questionnaire.

(j) As a place for children to live in

The question on the suitability of the complex for children to live in, drew a 38 % as against 41 % (positive as opposed to negative) response before the

(a) Socially enriching

The positive as opposed to the negative expectation of a socially enriching life which measured 72 % as against 7 % in Questionnaire 1, increased to an 83 % as against 8 % division in Questionnaire 2. This positive shift was reversed in the third questionnaire and the distribution of 73 % and 10 % was virtually the same as that in the first questionnaire.

(b) Provision of cultural facilities

The 60 % positive as against the 19 % negative division in Questionnaire 1 has decreased slightly to 54 % as against 20 %, with more people (26 %) uncertain than was the case with Questionnaire 1 (21 %). Therefore it was thought that the chances would be less that the complex would provide cultural activities for its occupants. This trend was reversed by Questionnaire 3, with an eventual result which was slightly more positive - 63 % as against 17 % - than the first time.

(c) Leading to loneliness

Whereas 15 % of the respondents in Questionnaire 1 thought that occupants would be lonely, 13 % thought so after the presentation. More marked is the increase from 65 % to 77 % of those who thought that it would not be the case. This positive change was reversed to 20-73 (fewer respondents were uncertain), which reflects a response closer to the first one.

(d) Exciting

Before the presentation, the percentages of respondents who thought that occupants of the complex would find life there exciting as against the ones who did not think so, were 65 % and 17 % respectively. This changed to 79 % and 5 % respectively in Questionnaire 2: a significant positive change. In the third questionnaire this change was reversed to a position about midway between the first two, viz. 72 % as against 14 %. This means that the respondents were positively influenced by the presentation, lost some of their enthusiasm during the two months, but were still more positive than in the beginning.

(e) Noisy

Initially 62 % of the respondents thought that the complex would be noisy and 16 % thought it would not be. After the presentation these percentages chan-

TABLE 1: EXPECTED NATURE OF LIFE IN THE COMPLEX ACCORDING TO ALL THREE QUESTIONNAIRES

Indicator	Response			
Statement: Life in the complex will	Questionnaire No.	% agree	% uncertain	% disagree
be socially enriching	1	72	21	7
	2	83	9	8
	3	73	17	10
provide cultural facilities	1	60	21	19
	2	54	26	20
	3	63	20	17
lead to loneliness	1	15	20	65
	2	13	10	77
	3	20	7	73
be exciting	1	65	18	17
	2	79	16	5
	3	72	14	14
be noisy	2	62	22	16
	2	43	31	26
	3	**24***	30	**46**
lead to neighbourhood conflict	1	38	27	35
	2	9	24	67
	3	27	20	53
lead to crime	1	35	26	39
	2	29	34	37
	3	16	31	53
be a safe place	1	39	38	23
	2	60	24	16
	3	**54**	33	**13**
be vandalized	1	35	26	39
	2	25	33	42
	3	23	27	50
be a bad place for children to live in	1	41	21	38
	2	20	23	57
	3	**20**	24	**56**

* The figures in bold print represent a considerable positive change.

Compared with the choices in Questionnaire 1, only one major change was noticed: Play areas have declined sharply in popularity and schools became remarkably more popular.

7.4.4 Ideal size of complex

The respondents' answers provided a numerical height average of 10 storeys and a population of 10 000 (rounded off to the nearest thousand).

It was deduced from information in 7.1.4 that respondents saw six-storey flat blocks with a maximum population of about 2 000 people for the complex as the ideal. In 7.3.1 it was reported that there was a shift towards making the complex larger and higher after having seen the model and discussed the reasons for the design. The average figure obtained from responses in the third questionnaire was far larger than the previous ones, yet still considerably smaller than the planners' proposal of 20 storeys and 35 000 people.

7.4.5 Expected nature of life in complex

We shall now compare the trends in all three questionnaires according to the ten indicators used (Table 1).

larger and higher after having seen the model and discussed the motivation for the design.

7.3.2 Expected nature of life in complex

A comparison with similar or comparable questions in Questionnaire 1 revealed a more positive response in some cases, more negative in others, and no change in the rest. (See Table 1 for more details.)

7.4 Questionnaire 3

7.4.1 Discussions

The respondents discussed the whole issue of the proposed flat complex more often with friends (67 % a lot of discussion and 30 % a little discussion) than with their family (52 % a lot and 39 % a little), but very little with other people (9 % a lot and 42 % a little). (The balance to 100 % had had no contact with that particular group.)

7.4.2 Attitude

Ninety-one per cent of the respondents who filled in Questionnaire 3 replied that it was a good idea or a very good idea to build such a complex. This figure was considerably higher than the 72 % for Questionnaire 1. Nine per cent were uncertain as against 10% in Questionnaire 1. No respondents in Questionnaire 3 thought it was not a good idea, while 7% had thought so in the first questionnaire.

It can therefore be said that once the respondents had obtained more information on the proposed complex and had had discussions with other people about it, they changed their attitudes in favour of the complex, in spite of a lapse of two months and the intervening influence of the outside community.

7.4.3 Facilities

The following required facilities were listed in order of importance:

Schools
Shops
Nursery schools/crèches
Clinics
Educational facilities for adults
Play areas
Community halls

79 % thought they would be happy there and 5 % not, 91 % would make friends in the complex and 4 % not, 88 % would become involved in organizing it to be a good place to live in and 4 % would not, 30 % would always be looking out for another place and 38 % would not. (The balance making up 100 % in each case were undecided.)

Respondents were also asked whether there was adequate provision for certain facilities. It was felt that it was adequate for schools (97 %), shops (90 %), play areas for children (85 %) and sports fields (78 %). Provision for a clinic (61 % yes and 23% not quite), a community hall (60 % yes and 21 % not quite), educational facilities for adults (54 % yes and 22 % not quite) and religious facilities (41 % yes and 26 % not quite) were seen as less adequate. (The missing values here refer to respondents who felt unable to respond.)

7.3 Comparison with Questionnaire 1

7.3.1 Nature of complex

The first subjects compared with Questionnaire 1 relate to the size and height of the buildings. In all cases data were collected by means of similar or comparable questions, and indices for an indication of a shift in attitudes were determined.

Upon a question as to whether there were too many people (35 000) in the complex, 39 % answered "yes" and 41 % "perhaps". Twenty per cent felt that there were not too many. Compared with Questionnaire 1, 38 % of the respondents changed their attitude by allowing for more people, 61 % were unchanged and 1 % wanted fewer people than they had wanted before.

With reference to a comparison of the question of designing the complex themselves, 30 % of the respondents would have designed the complex larger than initially, 60 % would have left it unchanged and 10 % would have made it smaller.

As far as the height was concerned, 38 % of the respondents favoured 20 storeys or more, 61 % from 10 to 19 storeys and 1 % from 5 to 9 storeys. When compared with Questionnaire 1, it is found that 51 % wanted the buildings higher than before, the views of 44 % remained unchanged and 5 % wanted the buildings lower.

It can therefore be said that respondents wanted the complex considerably

7.1.5 Expected nature of life in complex

The respondents were asked to indicate their agreement, or not, with certain statements regarding the nature of life in such a complex.

The results revealed that they expected life in such a complex to be: socially enriching, providing cultural activities, exciting, noisy, yet safe and not lonely. There was no clarity as to whether it would be a good place for children to live in, whether it would give rise to neighbourhood conflict, lead to crime or be vandalized. (See Table 1 for more details.)

7.2 Questionnaire 2

7.2.1 Presentation and information

Seventy-eight per cent of the respondents felt that the presentation by the team was good, 22 % felt it was average and nobody found it poor.

Considering their own knowledge of the proposed complex before the presentation, 28 % of the respondents felt that their knowledge had been sufficient, 38 % said partly sufficient and 34 % insufficient. As far as the correctness was concerned, 24 % said that their information had been correct, 47 % said partly correct and 29 % incorrect.

7.2.2 General perception

Sixty-one per cent of the respondents were of the opinion that Sowetans felt positively about the proposed complex and 12 % thought they felt negative about it. Five per cent thought that the people did not care, while 22 % of the respondents did not know how the man in the street felt about it.

Regarding the way the newspapers handled the news of the project, 20 % of the respondents felt that it was positive, 9 % negative and 19 % in between. Just more than half (52 %) of the respondents did not know how the newspapers handled it.

7.2.3 Experiencing of complex

The respondents were asked to indicate their expected experiencing of the proposed complex and the following answers were given:

3 % thought it was not a good idea,
6 % were uncertain, and
20 % said that they did not know enough to express a view.

This finding indicates that people are inclined to express views on matters about which they know factually very little or nothing. This inclination also underlines the importance of ensuring the availability of sufficient, correct information to people when their attitudes and perceptions are measured.

7.1.4 Ideal nature of complex

The respondents were asked to consider the possible erection of a very big flat complex for occupation by single people, couples and people with children, and then to answer certain questions on the size and height thereof and the facilities to be provided.

As far as the preferred number of flats was concerned, 67 % said the complex should not have more than 500 flats, but 63 % disagreed that it should not have more than 100 flats. Therefore, the majority would probably have preferred a complex in the order of 300 flats, i.e. 2 000 people (which is very low compared with the 6 000 envisaged - a figure which most respondents were still unaware of at that stage of the session).

Regarding the ideal height, 79 % did not want to see it being higher than 15 storeys, while 50 % said it should not be higher than six storeys (44 % said it could be higher than six storeys).

Therefore it seems that six storeys could have been taken as an ideal height for the majority when they filled in the first questionnaire.

A question regarding the relative importance of certain facilities in the complex revealed the following hierarchy in order of importance:

Play areas for children
Clinics
Nursery schools/crèches
Shops
Educational facilities for adults
Schools
Sports fields
Community halls

thing from radio and television.)
As far as factual knowledge of the complex was concerned, the following was found:

(a) Knowing the area where the complex was to be built:
31 % were correct;
13 % were close to being correct, and
56 % were wrong or did not know.

(b) Knowing the number of storeys planned (20 storeys):
15 % said 15 storeys or more;
11 % said 7-14 storeys, and
74 % said less than 7 storeys or they did not know.

(c) Regarding the number of people planned for (35 000):
7 % said 20 000 or more;
6 % said 5 000 to 19 999, and
87 % said less than 5 000 or did not know.

It is clear that a large majority knew nothing or very little about the nature of the proposed complex.

7.1.3 Attitude

Upon a question as to whether it was a good idea to build such a complex:

72 % of the respondents thought it was a good or a very good idea,
7 % thought it was not a good idea,
10 % were uncertain, and
11 % felt that they did not know enough about it to express an opinion.

It is notable that although only 12 % of the respondents said that they had heard a lot about the proposed complex, 89 % were prepared to express an opinion on the desirability, or otherwise, of the complex. More significantly, 33 % said they knew nothing about the proposed complex, but only 11 % felt that they could not express an opinion.

The 33 % (42 persons) who stated that they knew nothing about the proposed complex, expressed the following views on the desirability of the complex:
48 % thought it was a very good idea,
23 % thought it was a good idea,

Their age distribution was as follows:

-25 years old	:	28 %
25-34 years	:	38 %
35-44 years	:	15 %
45+ years old	:	19 %

The groups included senior public sector officials, teachers, final-year university students and senior nurses.

Ninety-six per cent saw themselves as used to city life and only 4 % did not.

The majority (53 %) had been living in their present dwellings for 20 years or longer.

Three quarters (74 %) had been resident in Soweto for 20 years or more.

As far as experience of flat life was concerned, 11 % had some personal experience of living in a flat. Forty per cent had visited or were regularly visiting people living in a flat.

Only 12 % of the respondents felt that it would (definitely) be easy for them to live in Hillbrow, 38 % thought it might (perhaps) be easy, but a further 38 % said it would never be easy. Twelve per cent did not know.

Nearly half (48 %) of the respondents lived in a formal new type of Soweto house, 37 % in a formal old type, 6 % in informal structures, 7 % in outbuildings/garages and 2 % in flats. In 60 % of the cases they owned the place, while 28 % were renting and 12 % were boarding.

As far as housing subsidy was concerned, 84 % of the respondents felt that it was a good thing, 5 % disagreed and 11 % were uncertain or did not know.

7.1.2 Information

Only 12% of the respondents had heard a lot about the complex, the majority (55%) had heard a bit about it, and one third (33 %) knew nothing about it.

Those who had heard of it, had heard mostly from friends (14 % a lot and 36 % a little) or through the newspapers (10 % a lot and 32 % a little). The radio (3 % a lot and 14 % a little) and television (5 % a lot and 23 % a little) were less important sources of information. (In each case the balance - of the 100 % - had heard no-

extent respondents changed their opinions subsequently, compared with the nature of their initial knowledge.

The purpose of the presentation by the architect and the accountant was to allow the respondents to obtain the most objective possible data on what was being planned, seen against the background of overseas experience. Questions and answers formed a vital part of this presentation.

The second questionnaire included an evaluation by the respondent of his initial knowledge of the proposal, but the most important aspect of this questionnaire was to establish the shifts in attitudes and opinions from before to after the presentation: Are the respondents more or less positive towards the establishment of the complex? Have they changed their attitudes regarding the height, size and characteristics? Indices were worked out for comparison.[1]

It was argued that the respondents might have been influenced by the presentation, which took place between the completion of Questionnaires 1 and 2 during session 1. Therefore, their responses in Questionnaire 2 might have been biased. The third questionnaire was thus only completed two months later. During those two months back in the "real world", communicating with people who had not seen the presentation would force the respondents to use their knowledge and evaluate their newly formed views.

The purpose of the third questionnaire was to see to what extent respondents' attitudes and perceptions had either swung back to those expressed in the first questionnaire or moved further away from Questionnaire 1 than those expressed in Questionnaire 2.

In this way, the data obtained from Questionnaire 3 could also be regarded as the most valid, since they were based on correct and sufficient information on the proposed complex, yet no longer biased as a result of the immediate effect of the presentation.

7. DATA

7.1 Questionnaire 1

7.1.1 Personal aspects

Of the 128 respondents, 49 % were male and 51 % female.

- Select four or five groups, each consisting of 30 to 35 people, in order to complete Questionnaire 1, explain the nature of the proposed complex with slides, plans and a model, and complete Questionnaire 2.

- Request the respondents to discuss their viewpoints with other members of the public for the following month or two, after which they would be asked to complete Questionnaire 3 during a group session of about half an hour.

- Analyse and compare the research findings.

6. QUESTIONNAIRES

6.1 Nature

Questionnaire 1 comprised the following sections:
Personal: Name, age, gender, urban orientation, duration of stay in dwelling/ Soweto, experience of flat life;
Flat complex: Knowledge of it, sources of information, attitude towards it, desired size, height and facilities, characteristics, attitude toward living in Hillbrow and ownership.

In Questionnaire 2 the respondent's name was asked again for comparative purposes. Other questions covered the following:
Adequacy of previous knowledge, attitudes of Sowetans and newspapers, quality of presentation, expectations of experiencing the complex, ideal size and height*, provision of facilities, characteristics. (*For comparison with Questionnaires 1 and 3.)

Questionnaire 3 (with name for comparison) first asked whether the respondent had discussed the matter with others. The following four sections were all designed for comparison with similar or comparable questions in the other questionnaires: attitude toward complex, desired facilities, size and height of complex, and characteristics.

6.2 Rationale for questionnaires

Questionnaire 1 was designed for testing the respondents "cold", in other words before they had been informed in any way by the research team. Questions for testing both factual knowledge and attitudes were included. It is useful to see to what

include the attitudes and perceptions of Sowetans with regard to the proposed complex. In addition to the need for general research on the occupation of high-rise buildings by blacks, the planners of the proposed complex in Soweto are keen to learn more about the prospective occupants' attitudes and perceptions. This motivation for the research is more specific and will obviously influence the nature of the research design.

3. RESEARCH PROBLEM

If a qualitative study for testing people's attitudes and perceptions of a phenomenon is used, it is imperative that the respondents should know enough about that phenomenon in order to express a well-considered view. But that requirement can be expected to pose a problem for the majority of people in Soweto on account of the lack of high rise accommodation in that city. The only high-rise living quarters are the nurses' residence at Baragwanath Hospital. Other flat blocks are in the order of three or four storeys - a far cry from the proposed 20 storeys of the new complex.

This problem had to be addressed before any meaningful deductions from the survey data could be made.

4. A MATTER OF INTERVENTION

It is clear that data obtained from a straightforward interview would not have been valid since the respondents knew too little of high-rise living in general and the proposed complex in particular.

On the other hand, briefing the respondents before interviewing them would have resulted in a degree of bias. In addition, it would not have indicated what the respondents' viewpoints were before the intervention of the researcher. Should the respondents be briefed, an interview a month or two after the briefing could help to minimize the influence of the researcher more effectively than if the briefing was done shortly before the interview.

5. RESEARCH DESIGN

Considering all the above constraints, it was decided to work as follows:

- Identify target groups, comprising people from socio-economic and occuppational categories that could afford this type of accommodation, namely young, affluent, single and professional.

PART IV: Paper 1

HIGH-RISE HOUSING CLUSTERS

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1. BACKGROUND

A utility company, The Foundation for Community Development in South Africa, has for some time been working on a proposal for the erection of a large high-rise flat complex in Soweto with many accompan ing facilities such as schools, shops, a hotel with conference facilities, play areas for children and sports fields.

The site which is being considered for the complex is currently occupied by the Lifateng and Nancefield hostels. It is bordered by a major dual carriageway on the west and a railway line on the east. The Nancefield station is adjacent to the site. Consequently the complex would be favourably situated as far as mass transportation is concerned.

As part of the planning exercise, the architectural team visited similar projects overseas and made a thorough study of successful and unsuccessful developments, with a view to adapting the successful cases to local circumstances. The team has drafted plans for the complex, built a model and designed a slide show which can be used to illustrate the planning principles involved.

2. NEED FOR RESEARCH

The occupation of high-rise flat blocks is a new experience for black South Africans and there are many arguments for and against the successful adaptation by blacks to such environments. At this stage the arguments against such adaptation seem to outweigh those for it. However it should be pointed out that most arguments are based on the experience of other cultural groups in different circumstances. Arguments are sometimes irrational because of the generalization of specific cultural habits or beliefs.

It can be seen that there is a definite need for research in this field. Such research can

APPENDIX 1 : INPUT STRUCTURES OF DIFFERENT DWELLINGS (1990 RAND)

SECTOR No	Name	Conventional	Beginners High	Beginners Low	Incremental	Informal shelter
1	Agriculture	...	...	...	...	532
5	Other mining	2 249	425	260	224	74
26	Textiles	2 602	2 600	140	...	73
33	Wood	6 227	1 801	818	767	88
41	Paint	3 516	442	215	16	48
45	Other chemical products	2 656	6	17	...	...
48	Plastic products	1 995	575	350	49	169
49	Leatherware	358	56	56	...	...
50	Glass	2 032	293	198	198	38
51	Bricks	12 135	6 016	3 631	2 930	259
52	Cement	2 713	1 602	954	669	75
53	Other non-metallic mineral products	8 495	788	448	97	36
54	Iron and steel	417	51	42	...	...
58	Metal products	8 604	4 129	2 904	1 524	243
69	Electrical apparatus	11 507	2 303	...	...	...
82	Commerce	5 098	1 346	760	484	190
84	Transport	2 312	899	525	354	45
	TOTAL: Local inputs	72 916	23 322	11 318	7 312	1 870
	Imports	6 837	987	95	36	11
	TOTAL: Intermediary inputs	79 753	24 309	11 413	7 348	1 881
	Salaries: Skilled	4 350	2 431	1 080	150	...
	Semi-skilled	6 000	4 000	2 400	120	...
	Unskilled	5 625	3 600	2 250	1 200	1 000
	Gross Industry Surplus*	5 744	2 060	1 029	529	173
	TOTAL inputs	101 477	36 400	18 172	9 347	3 054
	Labour**					
	Skilled	0,10	0,05	0,02	0,003	...
	Semiskilled	0,60	0,40	0,24	0,012	...
	Unskilled	1,15	0,72	0,45	0,240	0,33
	Capital	18 834	6 080	2 698	1 041	227

* Gross Industry Surplus is equated to the average of the Building Construction Industry. See Central Statistical Service. 1989. *Input-Output Tables, 1984*. Input-Output Tables, 1984 (1989)

** Man-years

NOTES

1. The term "dwelling" is more comprehensive than "house" and also includes flats, townhouses and squatters' shacks. Later in the paper the term "dwelling" will be used instead of "house".

2. For technical reasons the "Gini coefficient", which normally indicates the level of income distribution, was not calculated.

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If the absolute growth in demand is considered, the commercial sector (R634 million), the sector for non-metallic mineral products (R556 million) and the sector for manufactured metal products (R506 million) will benefit most from the growth in the construction of dwellings.

6. SUMMARY

The need for housing, and particularly for low-cost housing, is extensive - too extensive for the government to satisfy. Nevertheless it appears that the government places a high priority on alleviating the problem. With the above as basis and with the view that housing standards should get into step with the resident's ability to pay as background, two conclusions are drawn, namely:

- the construction of low-cost dwellings can almost triple by 1995; and,
- although informal shelters will still be the most important method of providing housing in 1995 (80 000 units a year), the number of middle-category houses in low-cost housing (beginners' houses (low) and incremental houses) in particular should rise steeply.

In terms of the multiplier analysis the effect of the construction of dwellings is highly favourable to economic growth, employment and income distribution, relative to their use of capital. The size of the Labour/Capital Multipliers correlates negatively with the cost of the house, which means that the production process of, for example, informal shelters is far more labour intensive than that of conventional dwellings. The low-income group also benefits more than twice as much if money is made available for the erection of informal shelters, rather than for any other project in the economy.

When measured against total economic activities, the effect of the construction of dwellings is relatively small. The advantageous effect of constructing low-cost residential buildings is largely neutralized by the construction of conventional residential buildings. The numbers of the latter will probably increase only moderately.

The sharp rise in the numbers of low-cost residential buildings constructed leads to a specific section of the economy being strongly stimulated. The sectors that can benefit most are the sector for non-metallic mineral products (sand and bricks), the sector for manufactured metal products (windows and galvanized iron) and the section of the commercial sector (retail and wholesale) that supplies building material.

TABLE 5: SECTORAL PRODUCTION EFFECT OF THE CONSTRUCTION OF DWELLINGS

	1989 Rm*	1995 Rm*	% growth	Absolute increase	% distribution
Agriculture	475,5	731,1	7,43	255,7	5,65
Gold	6,5	9,8	6,95	3,2	0,07
Other mining	215,2	319,4	6,80	104,1	2,30
Food	546,7	829,2	7,19	282,5	6,25
Beverages	109,7	163,8	6,91	54,1	1,20
Tobacco	22,1	32,8	6,84	10,8	0,24
Textiles	364,6	490,6	5,07	126,0	2,79
Clothing	97,2	145,1	6,91	47,9	1,06
Footwear	45,1	67,4	6,93	22,3	0,49
Wood and furniture	307,8	453,0	6,65	145,2	3,21
Paper	212,3	315,1	6,81	102,8	2,27
Chemicals	889,1	1 268,7	6,11	379,7	8,40
Non-metallic minerals	1 021,6	1 577,6	7,51	**556,0**	**12,30**
Basic metal ind.	370,9	534,9	6,29	163,9	3,63
Manufactured metals and machinery	1 166,2	1 672,2	6,19	506,0	11,19
Other manufacturing	18,4	27,5	6,95	9,1	0,20
Electricity	229,0	340,4	6,83	111,4	2,46
Water	34,1	50,5	6,77	16,4	0,36
Construction	16,1	24,0	6,88	7,9	0,17
Commerce	1 298,7	1 933,2	6,85	634,4	14,03
Transport	689,0	1 027,5	6,89	338,6	7,49
Financing	793,2	1 173,7	6,75	380,5	8,41
Services	207,2	307,2	6,78	100,0	2,21
Other	348,6	511,8	6,61	163,3	3,61
TOTAL	9 484,8	14 006,5	6,71	4 521,8	100,0

* Prices as in 1990.

In contrast, textiles (chiefly carpets) should benefit least from the growth in the construction of dwellings. The growth rate predicted for textiles is however still more than 5 % a year. The fact that cement and bricks are used in virtually all kinds of dwellings while carpets are not commonly used in low-cost housing, explains these different growth rates.

The effect on job opportunities is however somewhat greater and the 206 769 and 321 131 job opportunities created directly and indirectly in the economy, represent some 3,3 % and 5,0 % respectively of total employment in 1989 and 1995.

The composition of the effect on the respective macro-economic magnitudes is important: Thus for example the effect of the construction of conventional residential buildings, measured in terms of GDP (Table 4(A)), declines from almost 58 % in 1989 to only 45 % in 1995, and the effect of the construction of incremental houses rises from 1,4 % to 9,3 %. The latter increase represents an annual growth of almost 47 %.

The effect of conventional housing is also far more significant in terms of GDP than, for example, in terms of the earnings of the low-income groups. The converse is however true of informal shelters: their effect as a percentage of all dwellings with regard to the GDP is 3,1 %, as against the effect on the personal income of the low-income groups of 7,1 %.

Although the effect that the erection of dwellings has on the economy is apparently rather small, it grows fast, which means that the sector of the economy with which it is concerned is strongly stimulated. Thus for example the effect in terms of GDP grows at almost 7 % a year in real terms, as against the entire economy that is expected to grow by hardly more than 1 - 2 % a year over the same period. Job opportunities increase even more, namely by 7,6 % a year, which represents more than 114 000 new job opportunities. However, owing to the increase in labour productivity, economists predict that the total number of job opportunities could remain constant over the period 1989-1995, or could possibly decrease.

5.2 Sectoral effect

Table 5 shows the sectoral effect during the construction of the respective dwellings. Because the sectors are fairly comprehensive and a single sector accommodates various kinds of inputs, and also because the direct, indirect and derived effects are taken into account, sectors tend to reflect an average growth rate.The sector for non-metallic mineral products (mainly cement and bricks) has shown the fastest economic growth rate, namely 7,5 % a year.

TABLE 4: TOTAL ECONOMIC EFFECT OF THE CONSTRUCTION OF DWELLINGS (1990 PRICES)

	1989		1995		1989-1995
	Rand	% Distribution	Rand	% Distribution	% Growth p.a.
(A) GDP					
Conventional dwellings	2 674	**57,6**	3 095	**45,0**	2,5
Beginners' houses: High	1 651	35,6	1 978	28,7	3,1
Low	105	2,3	830	12,1	41,1
Incremental houses	65	**1,4**	643	**9,3**	**46,5**
Informal shelter	146	3,1	337	4,9	14,9
TOTAL GDP	4 641	100,0	6 883	100,0	6,8
(B) PERSONAL INCOME (low income group)					
Conventional dwellings	317	**49,3**	368	35,1	2,5
Beginners' houses High	249	38,6	298	28,5	3,1
Low	21	3,3	165	15,8	41,1
Incremental houses	11	1,7	110	10,6	46,5
Informal shelter	46	**7,1**	105	10,0	14,9
TOTAL personal income	644	100,0	1 046	100,0	8,4
(C) LABOUR (number)					
Conventional dwellings	103 434	50,0	119 669	37,3	2,5
Beginners' houses: High	80 241	38,8	96 135	29,9	3,1
Low	5 505	2,7	43 504	13,5	41,1
Incremental houses	2 807	1,4	27 763	8,7	46,5
Informal shelter	14 782	7,1	34 060	10,6	14,9
TOTAL labour	206 769	100,0	321 131	100,0	7,6

projects, rather than being used to erect dwellings.

During the construction of the various dwellings the effect on economic growth (GDP) corresponds largely with the effect of other sectors of the economy. This is probably because only a very small profit component is added to the erection cost of the various dwellings. However, it remains difficult to impute a profit, particularly with regard to self-building schemes.

The effect on job creation and income distribution is far greater during the erection of different types of dwellings. For example, for every R1 million invested by the building industry to build conventional dwellings, almost 17 job opportunities are created and for informal shelters almost 50 job opportunities. The 17 job opportunities created by building conventional dwellings are almost the same as those for the construction industry as a whole, but the construction industry is fairly labour intensive in comparison with other sectors of the economy.

5. ECONOMIC EFFECT OF HOUSING ON THE ECONOMY

5.1 Total effect

Table 4 shows the total effect on the economy of the construction of the various types of dwellings. The erection of dwellings generated R4 641 million GDP during 1989 and is expected to generate R6 883 million GDP in 1995. Measured against total economic activities, the effect is relatively small and represents only 2,0 % and 3,0 % of the GDP in 1989 and 1995 respectively.

Where the GDP/Capital Multipliers are concerned, the multipliers of the various dwellings are fairly similar, except for those of the informal shelters. It is interesting to note that the multipliers from which the GDP/Capital Multipliers are calculated, namely the GDP/Production Multipliers, differ considerably from the Capital/Production Multipliers for the various types of dwellings. The informal shelters' high GDP/Capital Multipliers can be attributed mainly to this category's backward linkage with the agricultural sector, especially in the purchase of wattle poles.

In contrast with the GDP/Capital Multipliers, the Labour/Capital Multipliers of the respective kinds of dwellings differ fairly radically. The size of the multipliers, except for those of the incremental house, correlates negatively with the cost of the house, which means for example that the informal shelter's production process (direct, indirect and derived) is far more labour intensive than that of the conventional dwelling. The relatively low Labour/Capital Multiplier of the incremental house is probably attributable to the fact that establishing the basic structure of a house, namely the roof (sink) and walls (bricks and cement) entails economic activities that are fairly capital intensive.

For the purpose of this article income distribution is measured on the basis of the personal income of the low-income group[2]. In this study the low-income group is described as persons who, according to the definition of the National Housing Commission, qualify for housing assistance. According to this definition some 18,7% of the whites, 77,3 % of the coloureds, 58,7 % of the Indians and 86,8% of the blacks qualify for assistance.

The last column in Table 3 (A) shows the percentage of personal income received by the low-income group during the erection of the different types of houses. This percentage varies from 25 % for conventional residential buildings to as high as 46 % for informal shelters. More unskilled workers are involved when erecting low-cost dwellings than is otherwise the case. It is further true that unskilled workers spend a greater proportion of their income on food and basic products; the production process of these goods is also more labour intensive.

4.2 Opportunity costs of the construction of dwellings relative to other economic activities

Table 3(B) reflects the economic growth and job creation ability of the different sectors of the economy. Using this information it is possible to analyze the opportunity costs during the erection of the dwellings. "Opportunity costs" means the predicted economic effect if capital had been invested in other sectors and

TABLE 3: MACRO-ECONOMIC ANALYSIS (MULTIPLIER ANALYSIS) FOR (A) DIFFERENT TYPES OF DWELLINGS, AND (B) DIFFERENT ECONOMIC SECTORS

Commodity/Sector	Multipliers					
	GDP/PROD per unit	LBR/PROD persons per R1 million	CAP/PROD per unit	GDP/CAP per unit	LBR/CAP persons per R1 million	Low inc*/ Total income %
(A) Alternative dwellings						
Convential residential buildings	1,29	50,0	2,96	0,44	16,9	25
Beginners' houses:						
High	1,33	64,7	3,02	0,44	21,4	26
Low	1,37	72,0	3,12	0,44	23,1	31
Incremental houses	1,44	62,1	3,23	0,45	19,3	32
Informal shelter	1,37	137,9	2,77	0,49	49,7	46
(B) Sectors						
Agriculture	1,40	20,8	1,92	0,73	10,8	24
Gold	1,50	22,4	3,11	0,48	7,2	26
Other mining	1,45	36,7	3,30	0,44	11,1	24
Food	1,41	32,2	2,68	0,53	12,0	24
Beverages	1,65	37,8	3,61	0,46	10,5	23
Tobacco	1,43	25,1	2,71	0,53	9,3	23
Textiles	1,23	35,6	2,61	0,47	13,7	24
Clothing	1,35	49,8	2,51	0,53	19,8	22
Footwear	1,44	43,3	2,75	0,52	15,8	22
Wood and furniture	1,52	46,2	2,93	0,52	15,8	23
Paper	1,49	38,1	4,19	0,35	9,1	22
Chemicals	1,07	25,6	2,67	0,40	9,6	23
Non-metal minerals	1,48	35,2	3,43	0,43	10,3	24
Basic metal	1,42	48,7	3,08	0,46	15,8	23
Manufactured metal and machinery	1,49	44,0	3,05	0,49	14,4	23
Other manufacturing	1,16	27,2	2,01	0,58	13,5	23
Electricity	1,54	29,1	7,61	0,20	3,8	23
Water	1,41	35,1	6,75	0,21	5,2	23
Construction	1,51	50,2	2,94	0,51	17,1	23
Commerce	1,52	35,7	3,17	0,48	11,3	23
Transport	1,54	31,2	5,40	0,29	5,8	23
Financing	1,40	29,1	6,04	0,23	4,8	23
Services	1,58	84,2	2,90	0,54	29,0	23
Other	1,29	120,1	5,22	0,25	23,0	23

* Income of the low income group as a percentage of total personal income.

If greater value is attached to continued economic growth, the GDP/Capital Multiplier is considered to be more important than the Labour/Capital Multiplier. The converse is naturally true if greater priority is given to the creation of job opportunities, especially in the short term.

(Department of Local Government, Housing and Agriculture) were used for beginners' and incremental houses. The input structure of the informal shelter/house was based on a research project conducted on the system of providing informal houses in the metropolitan area of Durban (Boaden 1986).

The input structures of the different types of dwellings are shown in Appendix 1. The size and building cost (1990 prices) of the respective dwellings are as follows:

Type of dwelling	Size in sq. metres	Cost (rands)	Cost per sq metre (rands)
Conventional dwellings	145	101 477	700
Beginners' houses:			
High	76	36 400	479
Low	36	18 172	505
Incremental houses	36	9 347	260
Informal shelter	36	3 054	85

The type of analysis used for the economic impact study is known as the multiplier analysis and takes the direct, indirect and what are termed the derived effects into account. The multipliers were calculated by using the Semi-input-output model (Wang & Mullins 1988), as well as the input structures of the different houses (Appendix 1).

In the construction of a dwelling the "direct effect" refers to the effect occurring on the construction premises; the "indirect effect" to that occurring in the sectors (that link backwards to the construction industry due to the supply of material); and the "derived effect" to the chain reaction which is triggered by the salaries and profits that are ploughed back into the economy in the form of private consumer spending.

Table 3(A) reflects the contributions of the different types of dwellings to economic growth, the creation of job opportunities and the degree to which the distribution of income takes place. Where economic growth and job opportunities are concerned, the Gross Domestic Product (GDP)/Capital Multiplier and the Labour/Capital Multiplier are of greater value than the GDP/Production, Labour/Production and the Capital/Production multipliers in that the former indicate the effect that the construction of the various types of dwellings has on economic growth and the creation of job opportunities, relative to their use of capital. Since capital is regarded as a scarce resource in the South African economy, it should be utilized optimally.

TABLE 2: ESTIMATE OF TYPES OF DWELLINGS ERECTED IN 1989 AND 1995 (RSA AND TBVC COUNTRIES)

Type of dwelling	1989	Share %	1995	Share %	% growth a year
A. Conventional dwellings					
White	18 353	72	21 234	36	2,5
Coloured	2 854	11	5 023	9	9,9
Indian	2 057	8	6 272	11	20,4
Black	2 351	9	26 132	44	49,4
TOTAL	25 615	100	58 661	100	14,8
Standardized to 145 m^2	23 608		38 372		8,4
B. Low-cost dwellings					
Beginners' houses (high)	34 068	44	40 817	20	3,1
Beginners' houses (low)	4 205	5	33 230	16	41,1
Incremental houses	4 836	6	47 828	24	46,5
Informal shelter	35 111	45	80 896	40	14,9
TOTAL	78 220	100	202 771	100	17,2

4. ECONOMIC EFFECT DURING THE CONSTRUCTION OF DIFFERENT TYPES OF DWELLINGS

4.1 Multiplier analysis

When calculating the economic effect felt during the erection of the different types of dwellings the first step was to estimate input structures for the various dwellings. The quantity lists of a quantity surveyor firm, Farrow, Laing & Partners (1986), were used for the conventional dwellings. The building plans and quantity lists of the Self-help House Manual of the Administration: House of Representatives

c) Incremental houses - houses built piecemeal and with some government assistance. For the purposes of calculation it was assumed that the house is also 36 m² in area but has the minimum facilities, e.g. no ceiling, plumbing, inner doors or finishing touches;

d) Informal shelter - unconventional housing, with or without government assistance. It is envisaged that the government will in future only make a serviced stand (minimum standards) available, and that the resident will personally erect some kind of house (shelter).

Table 2 shows the estimates of the categories of dwellings that were erected in 1989 and that will be erected in 1995. The estimate of the number of dwellings for 1989 is based mainly on surveys. The statistics on dwellings financed by the private sector were obtained from surveys by the Central Statistical Services (August 1990). Statistics on subeconomic housing were obtained from the Department of Planning and Provincial Affairs (March 1990).

The estimated number of dwellings that will probably be erected in 1995 is based mainly on the demand as set out in Table 1. In accordance with the approach that housing standards will in future be mainly determined by the principle of affordability, houses were classified in terms of the earning capacity of those who will live in them.

Table 2 indicates that the number of conventional dwellings erected for blacks can exceed that for whites as early as 1995. However it is important to note that the surface area of construction (houses x square metres) involved in black housing will probably still be considerably smaller than those of the whites since the houses of blacks are much smaller.

To facilitate later calculations, conventional dwellings were standardized to an area of 145 m². This measure reveals that whites had built more units and the other population groups fewer. Table 2 also shows that the middle category of houses in low-cost housing should expand relative to the categories for beginners (high), and informal shelter. This view is based on the premise that housing standards especially for coloureds and Indians in the subeconomic group will be more in line with their ability to pay. With the greater priority accorded by the state to housing, it is predicted that the proportion for the housing category: informal shelter, could decrease, although this will remain the most comprehensive method of providing housing in 1995.

but that it will increase gradually. The need for housing is reflected in Table 1.

TABLE 1: PRESENT SHORTAGES AND PROJECTED NEED FOR HOUSING*

Population group	Assumed shortage	Cumulative increase in number of units required, including the 1985 shortage		
	1985	1990	1995	2000
White	25 000	95 000	193 000	280 000
Coloured	75 000	117 000	167 000	215 000
Indian	45 000	60 000	78 000	94 000
Black	661 000	1 956 000	2 381 000	2 818 000
TOTAL	806 000	2 228 000	2 819 000	3 407 000

* Source: Central Economic Advisory Service, 1989:5.

3. NUMBER AND TYPES OF DWELLINGS ERECTED IN 1989 AND 1995

The effect of building construction on the economy is calculated annually so as to correspond with the normal measurement of economic activities. Production usually does not increase immediately, but rather moves evenly in a specific direction. So as to comply with these conditions and also to ensure that the number of dwellings that has been set as an objective is in fact built over the period 1990-1995, a growth curve that slowly rises or falls has been calculated, using 1989 as a base. Any point on this growth curve can then be determined. For the purposes of this study 1989 (base year) and 1995 (target year) were quantified. The category classification used in the study for dwellings corresponds *approximately* with the classification used by the Urban Foundation (cf. Spier (SYNCOM) 1989: 24), and is as follows:

a) Conventional dwellings - economic housing that in no way depends on government subsidies and is financed mainly by the private sector;

b) Beginners' houses - houses built with some form of government assistance. Two categories are distinguished, namely a 76 m^2 house (beginners - high) and a 36 m^2 house (beginners - low);

not become overstimulated. Unnecessary price increases can ultimately affect the prospective buyer detrimentally.

The building construction industry can also be used as an instrument to introduce the next business cycle, if other monetary and fiscal measures do not have the desired effect, particularly in view of political conditions that may deteriorate even further.

In this paper an attempt is made to answer some of the above questions by evaluating the effect that the construction of dwellings, especially low-cost dwellings, will have on the South African economy as regards economic growth, job creation and the distribution of income. Although the need for housing will be discussed briefly, the main emphasis falls on the possible effect that the erection of dwellings will have on the South African economy. Besides a discussion of the number and types of dwellings that will probably be erected up to and during 1995 and the impact that this will have on the economy, the economic characteristics of the types of dwellings will also be examined. The economic effects are calculated using the Semi-input-output model (Wang and Mullins 1988).

This paper is mainly a summary of a research project of the same title, which was commissioned by the Co-operative Research Programme: Affordable Material Provision of the HSRC and of which the report, *Makro-ekonomiese effek van laekostebehuising* (Mullins 1991), has been published. The paper focusses mainly on the results of the research project, with less emphasis on a description of the data of the Semi-input-output model that was used for the research.

2. NEED FOR HOUSING

The details about the housing need - which form the basis for determining the number of dwellings that may be erected - are similar to those used by the Interdepartmental Committee for the Determination of Long-term Spending Guidelines for Housing (Central Economic Advisory Service 1989). This need is based mainly on an estimate of the rate of urbanization, giving due regard to the present shortfall in dwellings, as well as on practical considerations such as that some whites own two or more houses, as against other whites who do not own a dwelling at all. Considering the dearth of housing for blacks, the 1995 estimate of the need for black housing was adjusted to allow for the production capacity of the construction industry. The projected 1995 need for black housing is an interpolation between the number of dwellings that are currently being built, and the number that, according to calculations, will be built by the year 2000 to satisfy the demand between 1990-2000. It is therefore accepted that for practical reasons the construction of dwellings cannot immediately increase to acceptable levels,

PART III: Paper 1

MACRO-ECONOMIC EFFECT OF LOW-COST HOUSING

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1. OBJECTIVE

The availability and provision of adequate and suitable housing is a matter of urgent priority for both the individual and the government. As will be pointed out in this paper there are tremendous backlogs in low-cost housing. The high priority given to housing by the government is confirmed by, for example, the new housing scheme for farm workers and the capital subsidy scheme, as well as by the extra funds - additional to existing government funds - that have recently been made available for housing.

However the provision of housing, and specifically low-cost housing, not only has social and economic implications for the prospective resident, but also has manifold macro-economic effects during the construction phase. At the time of the deregulation of the taxi industry during the eighties practically nobody foresaw the enormous proportions that the industry would ultimately assume. Had there been greater insight into the future nature and scope of the industry at that stage, the transitional process would probably have proceeded far more smoothly. Here the many road accidents involving taxis come to mind, as does the increase in the production of minibuses. In contrast, there is at present much speculation about the effect that low-cost housing may have on the economy. Some economists have already referred to the construction of low-cost housing as the engine of the economy. The question remains whether low-cost housing can really assume such proportions.

For the housing programme to take place as purposefully as possible within the economy, building contractors and the suppliers of building materials on the one hand, and the fiscal and monetary authorities on the other, need sufficient knowledge about the effect that the construction of houses[1] will have on the economy. Paramount here is the need to schedule housing projects correctly so that the economy in general, and the building construction industry in particular, do

sion is integrated with the other elements in community development and quality of life. To this end a case study was undertaken among the inhabitants of Soweto to determine their attitudes towards and perceptions of a proposed high-rise flat complex with accompanying communal facilities. By having recourse to three rounds of questionnaires, with respondents having the time to consider and reconsider their feelings about the project, valuable information was collected. Using this information could spell the difference between the success and failure of the proposed complex.

Attention was briefly devoted to private ownership as against the rented accommodation found in subsidized schemes. The consensus was in favour of private ownership which should encourage greater social stability. It was strongly recommended that instead of subsidizing the rate of interest over a long period of 20 to 30 years, involving a great deal of administrative work, the implied gift to the home owner should assume the form of a once-only gift - the capitalized present value of the monthly subsidies - which could conceivably be in the form of a serviced plot. This could serve as collateral for loans from the private sector which could relieve the state from further involvement.

Our researchers proposed a number of schemes for financing the provision of housing, some ingenious and novel, which could obviate the need for state intervention. Probable sources of finance include employers, pension funds, the SA Housing Trust, the Urban Foundation, the Development Bank of Southern Africa and Stokvels. They could all help to translate needs into market demand. Even so, a large portion of the low-income group remains which cannot comply with even the minimal obligations required by such schemes. This means that very informal accommodation will have to be considered.

Lastly, attention should be given to educating the low-income groups to accept that there is no such thing as entitlement to a decent living. This has to be earned. Only the self-imposed obligations of compassionate fellow men provide the gifts.

AFFORDABLE RESIDENTIAL ACCOMMODATION
Introduction to Parts III, IV and V

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The researchers, supported by members of the audience with considerable experience in housing matters, presented their findings on affordable housing to those attending the seminar. The researchers were required to present their conclusions in terms of a programme structured to cover the salient aspects of the problem of affordable housing, which includes the more general concept of residential accommodation and accommodation other than in conventional structures. This presentation was designed to impart some logical sequence to the discussion on affordable housing.

The obvious starting point was the demographic trends which determined the number of family households and thus the probable housing needs - not to be confused with market demand. The income distribution of these households indicated their ability or inability to afford shelter of any kind, and thus the probable types of structures, and how many of each type, would be required to satisfy the needs of the population. Cost estimates of these structures provided information which could be introduced into an input-output table to determine the matrix multipliers and the linkage effects on economic sectors and income categories, with estimates for employment per R1 million of expenditure and capital output ratios. The aggregate stimulatory effect of total expenditure on different types of housing on the gross domestic product, personal income and employment could be derived from these computations. While the subsidies involved in low-cost structures represent a burden to the taxpayer, the construction process itself represents a GDP and employment-boosting activity which can be used to raise the level of economic enterprise.

The provision of residential accommodation presupposes the availability of suitable land which is conveniently situated within a reasonable distance from work. It has been noted that the repeal of the Group Areas Act will have a significant beneficial effect on the planning of residential areas. To avoid the urban sprawl involving ever increasing travelling distances and inefficient use of land and infrastructure, high-rise, high-density living will have to be considered for the low-income groups even while they may be averse to it on account of custom and culture. There is therefore a need for research which could produce inputs in a quest for the attainment of solutions which optimize social and economic objectives in which housing provi-

If the CHWs are to be effective, more attention should also be paid to giving the required moral support and motivation to the CHWs who work under difficult conditions for salaries they consider relatively low. Attention should also be given to a reward system which takes the CHWs' experience into consideration. Finally one should guard against creating false expectations about the possible future payment of CHC members.

12. The concept of the health team

Greater emphasis should be given to the concept of the health team. This should take the form of semiregular meetings in which the CHFs and CHWs as well as hospital medical personnel are involved. This would provide positive feedback for the CHFs in particular, would help to alleviate the frustration many feel and would better inform the rest of the people involved in the health team of what the CHWs are doing.

Referral rates from regions with CHWs could be monitored to gauge the effects of the CHWs in particular areas, and the health team could be given some guidelines on how best to utilize the CHWs.

The meetings could also go some way toward integrating the CBHP into the health ward so as to obviate the perception held by some respondents (particularly some doctors) that the programme operates purely as an extension of the Amatikulu Centre.

13. Communication channels

The communication channels are hierarchical but not so inflexible that people at various levels cannot use their own initiative to solve problems. However it was found that people critical of the success of the CBHP obtained insufficient feedback, particularly of a positive nature, from the people to whom they were responsible. (See Paper 1.)

14. Support

Although the members of the CBHP were reasonably satisfied with the supervision and the support they received, certain problems need to be addressed, for instance the precedence of other duties, the lack of transport, uncertainty about supervisory criteria and lack of material support such as stationery, etc. (See Paper 2.)

15. Working conditions

The future availability of the CHFs may be hampered by the newly introduced bridging course for staff nurses. Attention should be given to ways of making employment as a CHF more attractive. The registration of an extra qualification, increased salaries and a shorter training course could be considered.

8. Doctors' awareness of the CBHP

The relatively high turnover of doctors within the health wards means that some of the doctors who should be contributing to the programme are not fully informed or aware of the programme. A concise and clear document that outlines the aims of the programme, giving details of its functioning within the health wards and guidelines for the doctor's role, should be drawn up and made "essential" reading for all hospital staff who have a direct input or even an indirect input into the programme.

9. Cross-programme co-operation

The concept of the CBHP as part of a team enterprise needs greater emphasis. This is particularly important because of the lack of co-operation between the CBHP and health education in schools.

10. Private doctors

Private doctors who operate within the "constituency" of the health wards, and who enjoy a considerable status, should be identified and fully informed of the CBHP. If they are negative and resistant toward the programme, it will detrimentally affect the credibility of the CBHP.

11. Monitoring and evaluation

The concept of ongoing monitoring and evaluation administered by the CHFs is fraught with difficulty. The evaluation and monitoring of the programme involve an initial and continuous needs assessment of health and development projects with the assistance of the community. It is recommended that a set of guidelines be clearly defined for internal use in the CBHP and that evaluation be carried out regularly by a member of the health team who is not directly involved in the CBHP. The guidelines for evaluation should be drawn up in consultation with the parties who will be involved in the evaluation.

In addition it is recommended that the clinic staff have direct access to the CHWs' home-visit cards so as to enhance their knowledge of community conditions. Also a test case should be selected whereby a baseline survey be done in a single community to assess health needs and knowledge. Following the implementation of the programme in the community, ongoing monitoring and evaluation of the impact of the programme on the community should be undertaken.

External networking could be facilitated through greater involvement with bodies such as SANCA and extension programmes, and greater involvement with other CBHPs in Southern Africa, particularly those run by the various NGOs.

6. Training

While it is recognized that the training given to the CHFs is flexible and continuously reviewed, some attention should be given to the different demands imposed by regional circumstances and ways found to accommodate "special interests" within the CHF training schedule. The impression was sometimes gained that the CHFs had predetermined the health problems in the area before they did the health survey. Thus the CHFs almost universally regarded water as the major health issue, but this was not always reflected in the interviews.

It would seem that the supervisors also did not receive adequate training and this should be addressed as a priority.

It is also recommended that the supervisors of the CHFs participate in the training of CHFs so as to give the former a better insight into their new role and into the functioning of the CBHP. The training of the CHWs is flexible and adequate to meet the programme's initial needs, but attention should be given to further training and motivation so as to expand the roles of the CHWs.

Many of the CHC members have not received any training. If they are to fulfil their support role adequately they will have to be given some training.

7. The role of *inyangas*

The *inyangas* form a category of potential expertise with which the CHFs and CHWs seem to have little co-operation. Researchers suspected that this aloof attitude had been noted in the area being researched. A question asking the respondents for their views on seeking medical treatment from the *inyangas* elicited extremely negative responses, but the number of *inyangas* operating in the areas indicated that this negative attitude did not represent actual practice. The researchers came to the conclusion that the respondents felt that people asking questions about health were likely to disapprove of *inyangas* and that the appropriate answer to such inquiries should be negative. Perhaps greater attention should be given to the incorporation of *inyangas* into the programme. From conversations with the CHFs it appeared that only Manguzi was making some effort in this regard.

also serve to motivate the CHCs and institute a continuity of policy that is absent with the high turnover rates experienced by some CHCs. The meetings would also serve to facilitate the "bottom-up" communication so vital to any successful community-based programme. The selection and functioning of CHCs should be carefully communicated to the communities from the outset. This would enhance the quality of the people proposed onto the CHCs and better integrate the CHCs into the communities.

4. THE CBHP and integrated rural development

Thought should be given to the role of CHFs, and by extension that of the CHWs, within the concept of integrated rural development. The CHFs are at the interface between "community" and regional structures, and this, in conjunction with the large degree of community credibility they appear to enjoy, means they occupy a position that would enable them to become active catalysts within the ambit of rural development. Some of the specific issues mentioned in the interviews include

- facilitating a clean water supply (e.g. spring protection and sanitation);
- promoting relevant aspects of adult education (e.g. literacy classes);
- promoting youth education, particularly with regard to sex education, alcoholism and drug abuse; greater co-operation in this regard with the Department of Education in particular;
- facilitating infrastructural development (construction of e.g. community centres), and
- educating people on the growing shortage of natural fuel supplies.

5. The strategy of "networking"

Allied to the above recommendation is the suggestion that serious thought should be given to the strategy of "networking" to enhance the functioning of the programme. This should take on two dimensions: a) internal networking and b) external networking. Internal networking could be greatly enhanced through the production of a newsletter that would facilitate communication and the transfer of knowledge between the CHFs and CHWs and the rest of the health team (particularly the doctors), and between the Amatikulu Centre and the rest of the people involved in the programme. Interpersonal communication between the different CBHPs in KwaZulu could also be improved.

PART II: Paper 5

SUMMARY AND RECOMMENDATIONS ARISING FROM THE ASSESSMENT OF THE CBHP IN KWAZULU

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1. Introduction

This paper summarizes the recommendations implicit in Papers 1, 2 and 3 on the evaluation of the KwaZulu Community-Based Health Programme (CBHP).

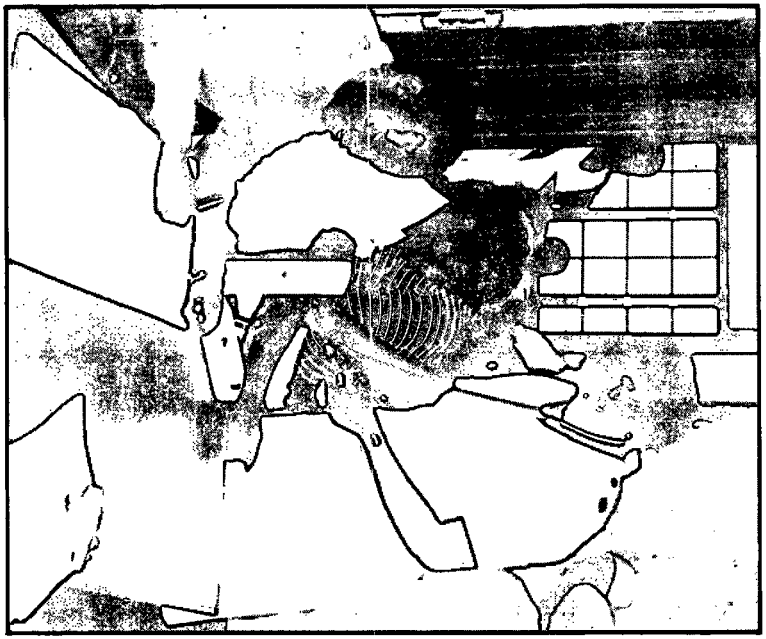
2. Community needs

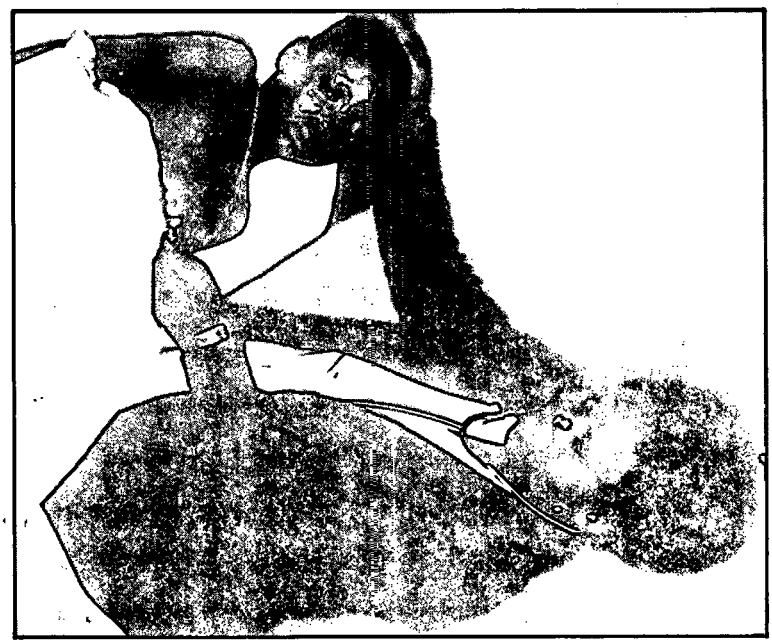
Implicit in the Alma Ata Declaration is the contention that Primary Health Care (PHC) strategies should not look for ways to justify the disparity in the allocation of resources (which the CBHP does not attempt to do) but should face the reality that the root cause of many of the problems besetting the people of the less developed regions is the disparity of resource allocation. While the credibility of the CBHP is relatively high, the fact that health is ultimately a political issue, and will probably become more so, means that the CBHP could eventually be seen as a second-rate substitute for the high-technology infrastructure characteristic of the health care of the more advantaged communities. To obviate this, primary health care should be given a higher priority and more of the health resources should be allocated to PHC. There is no escaping the conclusion that if we wish to redress this problem we will have to spend more on the disadvantaged sectors.

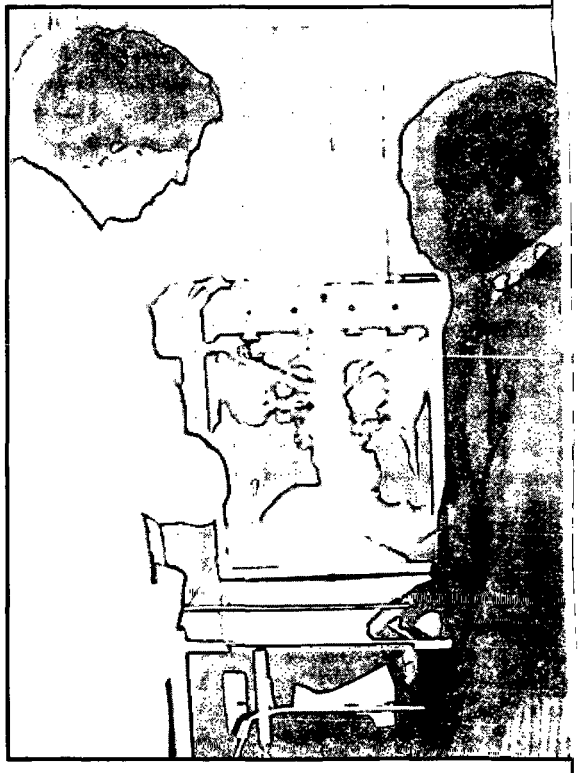
This is particularly true of the problem of transport. CHFs are severely constrained by the lack of transport. The issue of the need to concentrate on improving the curative service *via* the CHWs is also implicit in much of the data.

3. Democratization of the CBHP and the CHCs

Some thought should be given to further democratization of the CBHP. It would possibly be useful for facilitators to hold fairly regular community meetings. Some community feedback could be given and a "priority training list" be drawn up for the CHWs from the needs articulated at these meetings. The evident need for some AIDS counselling springs immediately to mind (see Paper 3). These meetings would







IFLIPCHART YESINE

INDABA KASHA NOMBAMB

APPENDIX

(Isifo sofuba noma iTB)

1. Leflipchart isifundisa lokhu okulandelayo:

1.1. **Okubangwa ITB**
- — ITB ibangwa amagciwane.
- — Amagciwane eTB alimaza noma adlavuza amaphaphu. Uma umuntu ephethwe iTB ekhwehlela, amagciwane asabalala emoyeni.
- — Amagciwane angatholwa ngomunye umuntu emoyeni, bese engenwa iTB.
- — Ngokusobala imindeni yalabo abaphethwe yiTB isengozini enkulu yokuba ithole iTB.

1.2. **Ngezikhalo zabaphethwe iTB.**
- — Ukukhwehlela okungapheli ngenyanga eyodwa noma ngaphezulu.
- — Ngokuhamba kwesikhathi isikhwehlela singaba negazi.
- — Ukungathandi ukudla.
- — Ukuzaca noma ukwehla kwesisindo.

1.3. **Okwenzeka esigulini esineTB uma sisesibhedlela**
- — Udokotela noma unesi uhlola isifuba.
- — Isikhwehlela siyahlolwa.
- — Kuthathwa isithombe sesifuba seXray.

1.4. **Ngokulashwa kweTB**
- — ITB ingalashwa ngemithi esetshenziswa ngodokotela nonesi. Izinyanga, izangoma kanye nabahlolayo ngeke bayelaphe iTB.
- — Uma ophethwe iTB engatholi ukwelashwa kahle ngemithi kadokotela, uyokufa.
- — Uma isiguli sisheshe sathola ukulashwa kahle, singalashelwa ngaphandle singalalanga esibhedlela.
- — Uma umuntu esheshe wathola ukulashwa angaqhubeka asebenze.
- — Ukulashwa ngokuphelela kudinga ukuthole kathathu ngesonto, izinyanga eziyisithupha.

2. **Izifundo azlyona indlela enhle ekufundiseni abantu abadala.** Abantu abafundi noma bakhumbule kahle uma bezohlala balalele. Ngakho-ke kungcono uma usebenzisa leflipchart ngendlela elandelayo.

3. **Siyakuncoma ukuthi usebenzise leflipchart ngenkathi nibosisana emaqenjini amancane,** lapho abantu bengakwazi ukuhlangana kangcono khona. Sekwabonakala ukuthi uma abantu bebeka nabo ngokwabo uma kufundwa, bafunda kangcono kakhulu.

3.1. Ungafundisa noma yiliphi iqembu elincane ngalendlela: iziguli emtholampilo noma emawadini, imindeni emakhaya, ikomidi lezempilo, iqembu lomphakathi njalonjalo. Kungcono uma iqembu lilincane kakhulu (sithi-nje abantu abalishumi) kodwa kwezinye izikhathi ungathola ukuthi kufanele usebenzise iqembu elininganа.

3.2. Kusemqoka ukuzilungiselela ngaphambi kokusebenzisa leflipchart. Qala ngokuyibuka kahle ngaphambi kokuqala. Uyabona ukuthi inezingxenye ezimbili ezihlukaniswe iphepha elingabhaliwe.

Ingxenye yokuQala iyisiqalo sokubonisana. Lokhu kusho ukuthi indaba ebeka izinkinga eqenjini zokuba kuboniswane. **Ingxenye yesiBili** inikeza izimpendulo emibuzweni ebuziwe eNgxenyeni yokuQala, ngesimo sendaba. Isetshenziselwa ukuqinisekisa lokho iqembu eselikufundile ekubonisaneni kwalo, futhi mhlawumbe nokulungisa imibono engalungile.

3.3. Uma niqala ukubonisana, **isimo kufanele kube ngesijwayelekile futhi ukhululeke.** Hlala phansi neqembu — ungami ngaphambi kwalo. Zazise, bese uchaza ukuthi **lokhu kuwukubonisana hayi ukufundisa.** Wonke umuntu uzohlanganyela ngolwazi analo namanye amalungu aseqenjini.

3.4. Misa iflipchart iqonde endaweni lapho wonke umuntu azoyibona kahle ngokucacile. Amakhasi eNgxenye yokuQala ayaphenyeka ngalinye ngalinye, futhi amalungu eqembu ayacelwa ukuba abambisane ekuxoxeni indaba. Eminye imininingwane ingaqunlwa ukuze ihambisane kancono nesimo sendawo.

3.5. Kulesigaba kusemqoka ukukhumbula ukuthi **awuzele ukuzoshumayela kodwa ukwenza iqembu liziholele izinto ngokwalo.** Khumbula ukuthi amaphuzu ozothanda ukuba amalungu eqembu awafunde asevele ayaziwa abanye babo. Ngakho-ke thula ngokunokwenzeka; buyisela imibuzo abakubuza yona kubona; khuthaza ukubonisana ngokubuza lemibuzo elandelayo:

- — siBoneni lapha?
- — kwEnzekani lapha?
- — ngabe kuyenzeka ezweni lEthu?
- — Kungani kwenzeka?
- — sizokweEnzenjani thina ngalokhu?

Khumbula izinhlamvu "BEEKE"

3.6. Emva kokuba sekuboniswene ngalemibuzo kaBEEKE, iNgxenye yesiBili yeflipchart ingakhonjiswa. Iqembu ekuxoxeni indaba liyoqiniseka ngaloko okufundiwe iqembu noma mhlawumbe lilungise imibono engalungile. Kungumqondo omuhle **ukuhlola manje ukuthi amalungu eqembu asefundile yini.** Lokhu ungakwenza ngokubuza imibuzo, futhi usebenzise amakhasi eflipchart ukucacisa izimpendulo.

3.7. Inhloso yemfundo yezempilo ukuletha abantu ukuba benze ukuze bayenze ncono impilo yabo. Ngakho-ke ekugcineni kokubonisana, cela amalunga eqembu **ashiyelane ngalokho asenquma ukuthi azokwenza** ngalenkinga.

4. Awudingi ukusebenzisa yonke iflipchart uma nibonisana. Ikhasi elilodwa lingenela ukuqala inxoxo. (Khumbula ukuthi isiqalo senxoxo siveza inkinga, ngaphandle kokunika impendulo). Isiqalo senxoxo silandelwa imibuzo ezifanele.

FLIPCHART NO. 4

ORY OF SHANDU AND MBAMBO

(Tuberculosis or TB)

1. This flipchart teaches the following facts:

1.1. **About the cause of TB**
- — TB is caused by germs.
- — These TB germs damage the lungs, and when a person with TB coughs, the germs get into the air.
- — The germs can therefore be breathed in by another person, who can then also get TB.
- — Clearly, the families of TB sufferers are in great danger of getting TB.

1.2. **About the complaints of TB sufferers**
- — A cough which will not go away, for one month or more.
- — Later on, the sputum may have blood in it.
- — Loss of appetite.
- — Loss of weight.

1.3. **About what happens to a TB patient when he goes to hospital**
- — The doctor or nurse examines his chest.
- — His sputum is examined.
- — An X-ray is taken of his chest.

1.4. **About the treatment of TB**
- — TB can only be treated with the medicines that doctors and nurses use. Inyangas, sangomas and prophets can't cure TB.
- — If a TB sufferer is not treated properly with doctor's medicines, he will die.
- — If a person starts getting the right treatment soon after getting TB, he can be treated as an outpatient and does not need to stay in hospital.
- — If a person with TB starts getting the right treatment soon, he can continue working.
- — To get completely cured, he needs to be treated at least 3 times a week, for 6 months.

2. **You should rather not give a lecture when using this flipchart.** Lectures are not a very good way of teaching adults. People do not learn or remember well if they just have to sit and listen.

3. **We recommend that you use this flipchart during discussions in small groups,** when people can take part more easily. It has been shown that if people are more involved when they learn, they learn better.

3.1. You can teach any small group in this way: patients at clinics or in wards, families at home, health committees, community groups etc. It is better if the group is quite small - any 10 people - but sometimes you may find you have to use larger groups.

3.2. It is very important that you should prepare before using this flipchart; go through it carefully beforehand. You will notice that it consists of two parts, separated by a blank sheet of paper.
Part 1 is a **discussion starter.** This means it is a story which puts problems to the group for discussion.
Part 2 gives some answers to the question posed in Part 1, also in story form. It is used to reinforce what the group has learnt in their discussion, and perhaps to correct some wrong ideas.

3.3. When you start a discussion, **the atmosphere must be informal and relaxed.** Sit down with the group - do not stand in front of it. Introduce yourself, and explain that **this is a discussion and not a lecture.** Everyone is going to share the knowledge they have with the other members of the group.

3.4. Hold the flipchart upright in a place where everyone can see it clearly. The pages of Part 1 are flipped over one by one, and group members are asked to participate in telling the story. Some details may be changed, to fit in better with local circumstances.

3.5. At this stage it is important to remember that **you are not here to preach, but to enable the group to discover things for themselves.** Also remember that the facts you would like the group members to learn are probably already known to some of them. So be as quiet as possible; turn questions that are asked to you back to the group; and stimulate discussion by asking some of the following questions:

- — what have we Seen here?
- — what is Happening here?
- — does it happen in Our community?
- — Why does it happen?
- — what are we going to Do about it?

Remember the letters "SHOWD"

3.6. After these SHOWD questions have been discussed, Part 2 of the flipchart is showed. Again the group participates in telling the story. It will reinforce what the group has learnt, and perhaps correct some wrong ideas. It is a good idea also to **check now whether the group members have really learnt.** You can do this by asking questions again, and using pages of the flipchart to illustrate answers.

3.7. The aim of health education is to bring people to act to improve their health. So right at the end of the discussion, ask members of the group to **share what they have decided to do** about the problem.

4. You need not use the whole flipchart with each group discussion - a single page may be anough to start the discussion off. (Remember that a good discussion starter poses a problem, without giving the answer). The starter is then followed by the appropriate questions.

Leflipchart ikhishwa ngokuhlanganyelwa
INgwelezane Health Ward Committee kanye
noMnyano

Photos: Mandlenkosi T. Buthelezi

This flipchart is a joint production of

tca

To facilitate the reproduction of the posters the captions to the pictures have been deleted