SYMPOSIUM ON HEALTH SERVICES FOR DEVELOPING COMMUNITIES

28 October, 1976

University of the North
Pietersburg

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PIETERSBURG
0700
Republiek van Suid-Afrika

1978

SERIES B15 ISBN 0949992 53 4

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OPENING ADDRESS BY DR THE HONOURABLE SCHALK VAN DER MERWE, MINISTER OF HEALTH, OF THE REPUBLIC OF SOUTH AFRICA, AT THE SYMPOSIUM "HEALTH SERVICES FOR DEVELOPING COMMUNITIES", HELD AT THE UNIVERSITY OF THE NORTH ON 28 OCTOBER, 1976.

The Principal and Vice-Chancellor, members of Council, Senate and Staff, Students, guests of Honour and visitors, Ladies and Gentlemen:

It is with great sincerity that I wish to acknowledge the honour you have accorded me, in inviting me to open this Symposium on "Health Services for Developing Communities".

With the expanding contribution, which the University of the North is already making towards health training, notably in the fields of Nursing and Pharmacy, your campus is indeed a fitting venue for such a symposium. Allow me, therefore, to congratulate the University - and the organizers in particular - on their praiseworthy initiative in serving this noble cause.

What adds a special note of topicality both to the topic and to the venue, is the fact that among the various nations served by this University, no less than four Ministries of Health have been newly established in the last two years. It is with particular warmth that I welcome representatives of these four Departments here today, and to wish them that spirit of teamwork, dedication and vision, which alone can crown their challenging task with success. In their case, success is intimately related to today's topic, namely, to create and maintain health services of their own, worthy of being regarded as a model for developing communities all over the world.

In this context I wish to emphasize, how important it has become, that we share more closely than ever our successes and problems in the development of health services. Here I am referring to a principle of great value and lasting significance, which the ferment of the last decades has clearly brought into focus here in South Africa. This is the principle that our common destiny lies in accepting each other in a positive spirit of interdependence. This principle carries the promise of full acknowledgements of the integrity of each one's identity, in a state of dynamic balance, maintained by the clear realisation, that our destinies will remain intimately linked. In fact, the principle of inter-dependence is today emerging as one of the greatest creative forces in the historical heritage of Southern Africa. We shall have no regrets, if we make it a cornerstone in building our future.

These links of destiny are probably brought home more irrefutably in the case of health services, than in any other field of our endeavours. To quote but one example: The ravages of an epidemic, or of a natural disaster, respect no political frontiers, nor any barriers of language and culture. Thus we cannot do our rightful share in preventing and mitigating human suffering, unless we accept inter-dependence as part of our existence.

As Minister of Health of the Republic, it is therefore my privilege to re-affirm how much importance I attach to full and sincere co-operation

in health matters. This is our stated policy, not only in respect of the health authorities within our borders, or between my government and the homeland governments, but also in terms of inter-national health co-operation, be it in South Africa or further afield. Although our limited resources impose obvious restrictions on our wish to help, we have committed ourselves, wherever the need arises, to give the greatest possible assistance. It is our conviction, moreover, that in the case of any two or more nations, which honour christian and civilised standards, this committment will be honoured on a mutual basis. This will not only enhance the credibility of such countries, but will be of untold and lasting benefit to all their peoples.

South Africa has every reason to be proud of her achievements in the field of medicine and health services. More particularly, the Republic is one among a small number of countries, which have wide and prestigious experience in serving the needs of developing rural communities with as much dedication as those of urban communities with the most sophisticated technology. It is this exceptionally wide spectrum of experience and expertise, which makes the South African Health-team so eager to respond to the challenge of freely sharing them, to the benefit of fellow Africans within and beyond our borders. Can it be denied, that the services of the Health-team and other "Caring professions" - if rendered to one's fellowmen in true sincerity and with no strings attached - must be seen as one of the most powerful catalysts in promoting mutual understanding, peaceful co-existence, and progress among all people? It is the honesty of the South African Government's intentions, in respect of this important humanitarian cause, which I want to re-emphasize today.

In the course of this short opening address, Mr. Chairman, I would like to focus our attention on a few of the criteria which I consider as basic in any health service that is committed to meet the needs and aspirations of developing communities.

In the first place, it is now generally accepted to be essential - in view of the multitude of inter-related developmental objectives which one strives to achieve - that our approach must always be a convincing expression of inter-disciplinary teamwork. Human needs and problems are possibly even more closely inter-related in the fields of health and welfare than in most other fields. It is, in fact, so impossible to determine categorically where the one begins and the other ends that developing communities will always benefit, if they merge the two fields into a department of health and welfare.

Another fundamental consideration is to set one's aim at achieving a service structure that covers the total population. If, however, the coverage is going to be not only total, but meaningful as well, then very strict and realistic attention will have to be given all along to the following requirements:

(a) For one thing, the services to be implemented and maintained must fall within the limits of what is possible and realistic. This means, that they must be geared to the resources which are available for these particular

services, no matter whether they are human or financial resources, of whether they come from internal or external sources. Sophisticated health services might prove to be a mixed blessing, if for example, they were to be introduced at the expense of educational or economic advancement.

(b) In order to achieve optimal utilisation of available resources, priorities will largely be determined by epidemiological profiles. At the same time, however, serious attention must always be given to the cost-benefit ratio of various proposals, before decisions are taken and priorities determined. Though it is often extremely tempting to do so, it is a policy of very questionable wisdom to embark on a very expensive project if this is mainly done for the sake of prestige. In such cases it often turns out, that the cost-benefit ratio is so unfavourable, that the population is actually cheated, and would clearly have benefited infinitely more from a less spectacular programme.

(c) A principle which has now established itself beyond dispute, is that the needs of a developing community - in fact of any community - are best served by what we call "A Comprehensive Health Care Delivery System." This approach does not exhaust itself in its old fashioned preoccupation with one-sided curative services, but makes full provision for the important roles of preventive, health-promotive and rehabilitative services. Not only is this expanded vision more economical in the long run, but it makes a significant contribution to the greater quality of life.

Of equal significance in the "Comprehensive Approach" is the new relationship which arises between the primary, secondary and tertiary levels of health care. No longer does the large, super-modern hospital occupy its traditionally safe place at the top of the pyramid unchallenged, and "Primary Health Care" the broad base of the pyramid - now claims the position of prior importance.

Primary health care denotes that range of services which are adequate for meeting the great majority of daily personal health needs, and which can and should be rendered at the peripheral community level. It is the primary services which should always be the first stage of a Comprehensive Health Care system, and thus they will be the master link which provides access to the secondary and tertiary levels of the service.

Primary health care is rendered in and around clinics and health-centres, which must not only be situated within the community, but should grow and take shape around the life patterns and value systems of the people concerned. In this way the primary services should actually be felt as "belonging" to those who are served by them.

Secondary services, on the other hand, are those usually provided at smaller hospitals, whose health-team is led by a General Practitioner. It is mainly when highly specialised skills and equipment are needed, that patients are referred to the tertiary services. These are the large specialist hospitals, and they represent the ultimate point of referral in the whole system.

In order to achieve optimal efficiency and rationalisation of services, it follows logically -

Firstly, that the establishment of a sound network of primary services must be seen as a top priority target;

Secondly, that all secondary and tertiary services should be designed in support of the needs and demands of primary health care at the peripheral level, and not vice-versa; and

Finally, that within the limits of what can be delegated and directly or remotely supervised, all services should always be undertaken at the most peripheral level, and invariably by the health-worker most simply trained to cope competently.

In any developing community, it goes without saying, that all services must be geared to the total development process. Health services, and more especially primary health care services, must therefore be fully integrated with the services of all other sectors involved in community development. This includes sectors such as agriculture, all branches of education and training, public works, housing and communications. Where this significant two-way relationship between health and community development is overlooked, the potential contribution of the health-team will never be even remotely achieved.

In conclusion, Mr. Chairman, I shall briefly dwell on the principle which will invariably prove to be the most important ingredient of success. When we deal with the establishment or consolidation of health services - or any other services - in a developing community, the active involvement of the community itself is always the critical factor. Whether the most expert and well-meant outside assistance is to end up in success or failure, will in the first place be determined by whether or not one achieves this active involvement. It is on account of their shortcomings on this crucial point - more than for any other reasons - that so many development programmes all over the world got stranded on the rocks of mutual disillusionment and bitterness.

Active involvement of the developing community means infinitely more than slick and irrestible sales-talk. What it means is full participation in decision-making. In no way does this diminish the importance of the expert adviser, but it does mean that he can achieve no lasting success by imposing his view or decision on a developing community. His role is not to announce an instant solution, but to assist the community in working out a solution, with which they can identify themselves through its being their "own" solution.

In terms of health services, the developing community must actively participate in all decisions on plans, programmes and priorities, and it must be fully involved in the implementation. Only in this way can the community's continuing support in the expansion and consolidation of the health services be ensured.

As far as the overall strategy of health services is concerned, it is the leaders

and authorities of the developing community, who must be fully involved in all stages of planning and implementing the primary, secondary and tertiary service levels.

Perhaps of most vital importance, however, is the active involvement of the local population in working out the formula for their own primary health care services. This is the crucial level, at which identification with the service must occur. Only through this process of identification, by which it is transformed into becoming their "own" service, can the will to self-help be mobilised and sustained. It is only then that the concept of the health service can sink living roots in the community, and that the new road to health becomes a valued community asset. If this has been achieved, then indeed the stage has been set for lasting participation in the dynamic growth of a people's self-propagating health service.

With this brief outline of some of the fundamental principles of health development, principles which have consistently guided the policies and endeavours of the South African Government, it has been my privilege, Mr. Chairman, to set the ball rolling for your important and searching deliberations. A careful study of your programme suggests the conclusion, which I can assure you gives me great satisfaction, that you share my own confidence in the dedication of my department to the health needs of our country's developing communities. May I wish you, Mr. Chairman, and from all my heart, that the success of your deliberations will in due course be measured in terms of the fruit they bear for our fellow-men.

It is now my greatly appreciated privilege to declare this symposium officially opened.

THE PRINCIPLES AND ROLE OF HEALTH EDUCATION

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1. PRESENT TRENDS IN HEALTH CARE

1.1 Change and Rising Expectations

The ferment and turmoil of change, which in the last decades has engulfed health care delivery systems all over the world, has spared no communities — regardless of their level of development. The technologically advanced countries have seen their elaborate systems undergoing far-reaching reorganisation, while in developing communities there has been an unprecedented pre-occupation with the expansion and consolidation of pre-existing but more or less flimsy and inadequate service systems.

What has given a strong impetus to such changes on all fronts is the common denominator of rising expectations. These hopes are fed, *inter alia*, by the realisation that the advances in all fields of modern medical science — if only they can be applied in practice — hold the promise of a significantly improved health status for populations everywhere.

1.2 An Emerging Discipline

In the ensuing scramble for finding new structures that would gear health services to the fulfilment of such a promise, the health sciences have spawned a multitude of new disciplines, health education being one among the more recent ones.

It would seem that few, if any, of the fledgling disciplines have had to go through quite the same dramatic sequence of ups and downs, hopes and setbacks, hostile contempt and glowing euphoria, stifling conservatism and misguided enthusiasm as the still controversial discipline of health education.

Amidst all the fuss about what health education is or should be, it has been generally acknowledged, however, that it has come to stay and, what is more, that the importance of its role will continue to increase. While it is often still allocated a distinctly inferior rank in curative services, the burgeoning fields of preventive, health-promotive and rehabilitative services of today are unthinkable without it. Yet nowhere is its pride of place so indisputable as in the accelerating evolution of health services in developing communities. In this situation the success of any health programme often depends more decisively on appropriate health education than on any other single input, for it is here that it has the crucial task of creating — often from scratch — the climate in which alone desirable health attitudes, initiative and action-orientated motivation can thrive.

It is in fact no exaggeration to say, that, in any developing community, health education should be seen as an essential ingredient of the basic developmental inputs. It is not an optional choice from among a number of possible strategies, but it fulfils so indispensable a function that it can justly

be called a universal strategy. By this I mean to stress, that it is not only essential in respect of the specific segment of health development, but also in relation to the total development process. It forms so integral and essential a part of all developmental education and orientation, that I do not believe any comprehensive development programme to have a chance of ever really getting off the ground, unless appropriate health education is allocated its due place among the top priorities in such a programme.

2. DEFINITIONS AND RELATIONSHIPS

At this stage it will be helpful to consider and correlate some definitions. You may rightly ask, for instance, what sort of health education I regard as "appropriate" or not. Although you are most certainly at liberty to disagree, you are also entitled to have clarity on the premises of my argument.

2.1 Information

Let me hasten to assure you, that I will not treat you to a dissertation on the latest and most sophisticated technical equipment that can be useful for health education purposes; or on when, or when not, to use a particular gadget or technique in preference to another. The technical intricacies of modern communication science belong in the first place to the realm of an information service. The latter also has an obvious and unassailable place in any education programme, but it is essentially the lesser, the easier and the more peripheral function of the educational process. It is for this reason that I want to put to you the thesis that the lasting impact and success of health education depends not so much on equipment as on commitment. The warmth and immediacy of person-to-person contact, of the sense of caring, of a balanced and mature approach, — all of which emanate from an effective personality, — carry along with them an educational impact of such a superior order, that it can never be fully replaced by any conceivable technical gadget.

2.2 Education

Since so many of us in the health team are inclined to suffer from such a sustained preoccupation with training programme, information programme and refresher programme — never mind the intrinsic value of each and every one — we may at times be in danger of losing sight of the more intricate, deep-delving functions, relating to our self-integration, which are implied in the term "education".

As a matter of fact, mankind in general is acutely prone to fall for the temptation of assuming that the acquisition of knowledge and skills *per se* is the equivalent of education. The far more elusive, and by far the most important function of education — if we put it in the simplest of terms — is to enable us to cope. Since it is the full spectrum of our life experience, and in all its inter-actions with the universe as we experience it, that we have to learn to cope with, therefore easily the most telling concern of education is the vast gamut of attitudes, principles, value systems, convictions and beliefs which collectively determine our human behaviour patterns, both as individuals and as groups. Compared to this awesome task, the mere transferral of knowledge and skills — as helpful and even indispensable this

function undoubtedly is — must be seen as being of a secondary order. If, for example, we compare the educational process to the construction of a building, then knowledge and skills merely represent the materials and tools. It is our attitudes and beliefs, however, which then represent the creative principle of order, which causes a functional shape and aesthetic harmony to arise out of the jumble of raw-material.

2.3 Health Services: Supplier and Consumer

If this vital educational process is going to be introduced creatively into the field of health, we are obliged to take a closer look at the goals as well as certain variables of a health service, because it provides and defines our operational area. A health service can be described as a service system of highly complex structure, designed for the purpose of enabling a specific society as a whole to maintain optimal progress towards the achievement of its health objectives. As in any service system, we are dealing with two inter-dependent parties, namely, the supplier and the consumer, and progress towards the goal depends upon the performance of both.

The supplier's performance, on the one hand, is rated according to the adequacy, balance, flexibility and credibility of two main inputs, namely, manpower and physical facilities, where manpower refers to the quantity and quality of human skills and productivity available for administrative, technical and professional inputs, while physical facilities include obvious items such as available buildings, equipment, supplies, communications and finance. The consumer's performance, on the other hand, is rated in terms of the informed, realistic and sustained nature of his utilisation of and demands upon the service system. Consistent progress towards defined health objectives is therefore rendered highly vulnerable to any inadequacy in the performance of supplier, consumer, or both.

It is to deal with these inadequacies of performance in the system, inasmuch as they arise from factors relating to human attitudes and human behaviour, that health education is all about.

2.4 The Role of Health Education

If then, in the present context, I am expected to volunteer a definition of the objectives of health education, I would like to put it as follows:

Health education must aim at providing a systematic and continuous learning process, which mobilises, develops and sustains the mental, physical, emotional and social potential of individuals, families, groups and societies in respect of their attainable health, and in terms of informed health-conducive attitudes and optimal, deliberate health behaviour.

Where the supplier is the target of health education, this requires an ongoing program of orientation and motivation designed to facilitate and optimise the beneficial and formative impact of his service inputs mainly inasmuch as they are a projection of his own personality and commitment to serve. The success of such a program will, on the whole, be reflected fairly accurately in the nature and quality of consumer response.

Whenever the consumer is the target, health education not only aims at

ensuring his adoption of desirable attitudes and his optimal functioning in respect of health and health-related behaviour, but also — and this, especially in our present context, is an objective of paramount importance — to generate in individuals and communities a commitment to voluntary, sustained action and initiative which will lead, by means of responsible self-help, to the highest standards of health attainable in terms of resources, the environment and other limiting factors.

In order to initiate and maintain consistent progress towards these goals, health education is faced with the demanding task of inculcating in the consumer a full awareness and realistic grasp of man's total environment, in a way which ensures effective and desirable inter-action between man and his environment in all those parameters that have any bearing on health. It also follows that health education is to be understood as being essentially a life-long process, equipping man for the continuous, dynamic adaptation of his health attitudes and behaviour to changing and new factors in his life and environment.

2.5 The Status of Health Education

One cannot fail to observe, that even this brief account of the role of health education in the health services of a developing community — or, for that matter, of any community — once again brings home to us — as it has done to so many of us and for so many years — a profoundly disturbing sense of urgency. What in fact I have been talking about is overwhelmingly the *potential* role of health education, and only minimally its present *de facto* role. When stating its objectives, I am guilty of specultating about the things health education might theoretically achieve, if taken seriously enough. As yet we are in all honesty achieving only a fraction of what is possible and required. Not that I am in the least denying that we have come a long way, but it is patently not enough. And it is no consolation at all in the fact, that there are countries who are lagging even further behind.

What should greatly hearten us, at the same time, is the serious commitment to the cause of health education, which has taken root in the Department of Health, and which is now showing signs of snowballing in the ranks of our country's health team. As a group, it is undoubtedly our nurses who show the greatest solidarity in taking up this neglected challenge. A similar movement has reached commendable momentum among health inspectors and is showing promise in other para-medical professions. It is that among doctors, whom one would expect to set the example and take the lead, where the situation is most deplorable. It is true that there are those who could in all sincerity be termed God's own gift to health education, and whose dedicated pioneering efforts are landmarks of lasting value and significance. Yet too many of the rank and file still shrug off the prospect of their own meaningful involvement in health education with a cynical sneer or with faceless apathy. It is also encouraging that the exhortations of the Department of Health have elicited commendable responses in many quarters, and the launching of the Department's National Health Education Program represents a particularly promising landmark.

But all this is not as yet remotely commensurate with the demands of the situation. The root of the malaise lies deeper. It seems to lie in the fact that health education simply has not come into its own in our country. It has not yet convincingly "arrived". On the contrary, it is still consigned to the unrespected and amorphous state of a "non-discipline", into which anybody dabbles at will, prompted completely at random by his greater or lesser insight and enthusiasm. But — where is guiding light of the master, of the authoritative specialist? Where is the team, the institute, the faculty, which is the acknowledged arbiter and heart-beat of health education in this country? The depth of our predicament is eloquently illustrated by the strange anomaly, that I am quite unjustifiably regarded as some kind of guru in the mystic realms of health education. This misconception in fact acutely embarrasses me, because I have had no formal training whatsoever in this extremely demanding field.

The point I am driving at is that our state of disarray is destined to continue until such time as one of our universities introduces study courses in health education which are comparable to the best on offer overseas and, of course, as a steady and formal demand is created for those who are thus qualified. To my mind, this course of study should, ideally, be open to anybody with sound training and experience in any health field, preferably coupled with a proven aptitude for inter-personal communication.

3. THE PRACTICE OF HEALTH EDUCATION: PRINCIPLES AND CRITERIA

Having briefly focussed our attention on the role and objectives of health education in the developmental context and on the importance of raising its status, we must proceed to explore those of its aspects which are of most immediate and decisive everyday relevance. These are the principles and criteria which will never cease to demand our most alert and perceptive attention if at all we are hoping to get properly off the ground in our day to day practice of health education. Without attempting to give anything approaching a full list, I shall briefly enumerate those which in my opinion present the most demanding and yet most rewarding challenge. We can be sure that these criteria will put to a severe test not only our comprehensive insight into the problems to be tackled, not only our maturity and objectivity of judgement, but also the integrity of our commitment to that service which health education is specifically privileged to render. For this reason I shall not dwell on the techniques and technical skills one will be required to master, for these can, by comparison, be picked up with relatively greater ease as one goes along.

3.1 Health Education is Total Patient Care

It is a characteristic task of health education to undertake with conscientious care the fully adequate orientation and motivation of the entire health team and whoever else may be concerned, in respect of any new principles and guidelines intended to enhance the quality of the service. One can succeed in this task only if the principle is lifted out of the world of theory and translated into the clearly spelt-out terms of one's daily working routine.

The full comprehension and application of the principle of "total patient care" is such an indispensable key to the alpha and omega of the practice of health education, that it is well worth meditating on each of the three words: That it is the "patient" who always matters, and whose interests must always take precedence over mine, has been taken for granted for such a long time, that a critical self-examination cannot be repeated too often.

The concept of the "total" patient generally still requires deliberate ongoing adjustment. Health education becomes irrelevant if we concentrate only on a part or segment, and fail to consider the patient's indivisible wholeness, comprising the physical, mental and social dimensions. Then again, the "total" patient means, in terms of health education, that we must at all times manage to look beyond the individual, and see also the family and community of which he is an integral part. Similarly, it means that his health needs must always be seen and interpreted in the context of the health needs of the family and community beyond the individual.

The concept of "care" is one which we all readily acknowledge as the fountain from which all activities of the health team should flow. Yet all too often it is mere lip-service that we give, and all too often we get away with this. But health education is an example *par excellence* of a situation where we will never be let off with mere lip-service. If our care is not genuine, then our whole exercise fizzles out right there.

When we talk of "total" care the concept of care takes on additional facets. For one thing, it reminds us that convenient interpretations of time, place or circumstance, which so often serve as mere excuses, are in fact no valid limits to our obligation to care. In a more formal sense: it commits health education to give all-out and untiring support to the realisation, in its fullest and widest sense, of a "comprehensive community health care delivery system". This includes giving due recognition, to each one in its own right, to the curative, preventive, health-promotive and rehabilitative components of modern health care, and yet always to see these four components as forming one intrinsic, indivisible unity.

3.2 Health Education is Communication

Everything that enables wider and more meaningful communication with people is so direct and fundamental a concern of health education, that one can say that communication is the very air it breathes. One can as well take the comparison one step further and state: When there is no communication health education will die of suffocation forthwith, or — what amounts to much the same thing — when there is a communication vacuum, it is wishful thinking to imagine that one can launch a health education programme, or hope that it will get across.

Whatever enhances communication, be it the form, method, medium, timing or situation, health education can never learn enough about it. Excepting, of course, if the temptation arises and is not heeded, to switch over entirely to technological means of communication to the effective exclusion of inter-personal ones. As far as health education is concerned, the modern range of media and audio-visual techniques unquestionably

represent such priceless tools and such a fantastic extension of the individual's reach, that they must be seen as a veritable gift from heaven. At the same time it can never be over-emphasized, that nothing can ever substitute, or approach by way of motivational impact, that noblest and primary situation, where the interaction of words, intonation, gestures and eyes establish a bridge of communication which remains forever unique.

Manifold are the barriers of communication which have to be crossed in the course of health education. The one who desires to cross them all, and wants to avoid rebuffs, must make sure that he knows the strategy which is the secret of communication. It is to start at the centre and then move outwards in sequence, crossing from each concentric sphere to the adjacent outer one. To start at the centre simply means that I must start with myself. It is the old question in everybody's life — and of exceptional weight in equipping us for health education — namely of knowing myself, of becoming so objective about myself that I can see myself through the eyes of others. For it is only he who can, as it were, communicate with himself who will make uninterrupted progress in communicating with more and more others, until he crosses, without visible effort, the most distant barriers.

In health education, the sequence of concentric spheres follows a fairly constant pattern. The innermost sphere, which contains and embraces the centre, is always the team, and the one adjacent to it is always the patient. Moving outwards, the sequence becomes variable, but it will include the community, various authorities, and other teams who share a common developmental commitment, irrespective of the discipline they might serve.

It is always an event of special and auspicious significance, when one at length achieves the first crossing from the sphere of intra-cultural communication outwards into the infinite space beyond, namely, the sphere of transcultural communication. In health education this landmark is of exceptional meaning. Not only does the cause one serves give incalculable assistance in facilitating the crossing of this barrier, but those who have failed to achieve the crossing are rendered non-functional in every cross-cultural situation. Though true communication is always a two-way process — one learns as much as one teaches — health education provides opportunities, which I believe to be unsurpassed, for tasting how enriching and liberating the experience of this two-way process can actually become for both parties, and no matter whether at the intra- or trans-cultural level.

Although I am sure that all of us here will take it for granted, I will add for the record that — in order to cross the threshold beyond which health education only begins to become a creative force — a quality of communication is required which makes the very highest standards of human and public relations a *sine qua non*. As far as this prerequisite is concerned, the merest suggestion of a credibility gap, for instance in the way a member of the health team carries himself, can suffice to slam the door on the future prospects for health education in the community concerned.

Undoubtedly its commitment to communication — be it by way of initiating, expanding or maintaining it — will more and more come to be regarded as perhaps the noblest task and calling of health education. It seems inconceivable to me that the importance of the principle of communication can ever be over-emphasized. And I am not referring to the field of health alone. I include the entire field of development and — you name it — any segment of modern man's troubled existence.

A most eloquent plea for according a virtually universal priority to the principle of communication was voiced last year by Sir John Stallworthy, President of the British Medical Association, when he said:

> "Failure to recognise the fact of the importance of communication is the basis of much present worldwide trouble in most aspects of modern life, including in medicine itself."

In a pronouncement of peerless beauty and lucidity, and all the more telling on account of its sheer simplicity, Sir John sums up the essentials for success in four brief points:

> "Someone who cares, a message to give, a desire to receive it, and an acceptable technique of presentation."

3.3 Health Education is Teamwork

In no other activity in the wide ramifications of a health service does success so critically hinge on the spirit of teamwork, and very specifically on the integrity and credibility of that spirit. This statement is borne out by the uniqueness of health education in that the spirit of teamwork is not only a particularly sensitive input — this essential condition it shares with other health activities — but in distinct contrast to other health activities, it is actually one of its chief "outputs". In other words, it is one of the most important objectives of health education to inculcate a spirit of teamwork in others. In this objective the most obvious target group is, of course, the whole spectrum of personnel in the health service itself. Of equal importance, however, is the objective of generating the spirit of teamwork in the target community, and to nurture, strengthen and expand it all along. Similarly, it is essential to draw other disciplines into the ambit of creative teamwork, not only within the health team, but eventually — and this is perhaps the most challenging vision of health education — in terms of a dynamically united "development team", which is not only essentially trans-disciplinary, but integrally involves the developing community itself.

It may surprise that in terms of team-spirit I am not awarding the laurel-wreath to the surgical team. But I maintain — knowing full well how far I am sticking out my neck — that in the most prestigious surgical team the impression that it represents the paragon of team-spirit is often an illusion. What it does represent, is the ultimate in refined synchronisation in performing a task of miraculous skill involving the utmost technical sophistication. Let me make it quite clear that I am not denying that true team-spirit can and often does exist in this group. But this does not necessarily have to be the case. What binds the group together is the implicit confidence in each member's competence and reliability. For the

rest the members may very well hate each other's guts, and may say so without compunction, while still achieving results of ultimate excellence.

The point is that the nature of the task to be achieved in surgery as compared to health education differs so fundamentally, that the requirements for an effective "team" are based on qualities which are just as divergent in nature. Essential to our present consideration, therefore, is more specific clarity about the principles on which sound teamwork in health education is based, and by which it will stand or fall.

A true team is born and held together only where the solidarity of its members in their commitment to a common cause takes clear precedence over the personal ambitions of individual members. An infallible index of commitment is the humility with which one subordinates personal considerations and interests to the cause one is serving.

If I desire, or believe myself, to be more important than others in the team, and strive to elevate myself by diminishing others, then I will not only minimise my own contribution to the cause, but I will inevitably obstruct the unfolding of the full potential of everybody else in the team.

If, on the other hand, I consistently enhance the selfrespect of everybody else in the team, by means of giving free and generous recognition to their qualitatively equal importance, then only will I help to set free, in a dynamic and creative way, their inherent potential. And, what is of equal significance, only then can I find the golden key that will set me free to unfold my own potential.

My true importance depends solely on the integrity and quality of my commitment to the common cause, and is measured only in terms of the importance of my contribution to, and within, the team.

These principles become operative with increasing significance and inexorability the higher my rank in the team is.

As long as I allow my individual ambitions of power and glory to prevail, I am actively sabotaging the growth of a team spirit, and sentencing the human component of the service system to the sterility, frustration and ignominy of a non-team.

It is the humility which can mature only out of total commitment, which inspired de Chardin to say:

> "If I have had a mission to fulfil, it will only be possible to judge whether I have accomplished it, by the extent to which others go beyond me."

3.4 Health Education is a Basic Developmental Input

Let me simply enumerate, without enlarging on them, the principles which are of relevance in this vital contribution of health education.

Health education is a "help to self-help", a process which is destroyed by permanent "hand-outs".

Health education is always based on active involvement of and participation by the people being served, so that they will identify with the service which results, as being their own.

Health education never imposes anything on the people served, but by assisting and guiding them to new insights, new attitudes and convictions, it helps them to find a new path to health which they follow on their own initiative. In other words, it helps them to the point from which, by their own decision, they "cross the bridge" to a new concept of health. In this process, health education always builds creatively on the pre-existing, formative cultural roots of the community concerned.

Health education is positive if it promotes the utilisation and expansion of existing services, but negative whenever it arouses expectations that cannot be met. It will also invariably endeavour to link and integrate new health services or health activities with any other existing services or community activities.

Health education sees it as a noble and essential aim to merge and integrate one's commitment and service into the total developmental endeavour.

It is important that a romantic enthusiasm does not take over, for its fruits are disillusionment and bitterness. It is therefore imperative at all times to assess and evaluate critically and truthfully the quality, relevance and credibility of one's endeavours.

3.5 Health education, therefore, if one identifies with its principles to such an extent, that they are reflected or expressed in one's daily activities, can truly be said to be *"a way of life"*. This way of life, in the ultimate analysis, is concerned with the enhancement of the quality of human existence.

To fulfil the role of catalyst towards that ultimate aim, and in terms of all its potential of promise, requires the willingness to embark on a disciplined and dedicated learning process — or, more often — a re-learning process.

Let us remember that always — at the very beginning of this process, even as at its end and fulfilment — there is a simple, yet the most important lesson, namely: never diminish another human being. For whenever we diminish any fellow human being, however lowly or humble his or her station in life may be, we are indulging in what must be the ultimate degree of uncharitable, crude and uncivilised behaviour.

Can there be anybody who — on delving into the very depths of his soul — could find it in him to deny this principle? I will never believe it. In fact it is not difficult to extol this universal principle. The difficulty lies in the exercise of letting this principle transfuse and transform our every thought, word, attitude and action. The practice of health education requires us to do just that, and to do it where it really counts, namely in the cause of mitigating human suffering as it confronts us in the realm of everyday, practical realities.

PREPARATION OR TRAINING OF HEALTH SERVICES PERSONNEL

Dr. Howard P. Botha
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INTRODUCTION

The modern approach to *health sciences training* aims at producing the right "mix" of health personnel - a *team* that will ensure full health coverage for the entire population in the coming decades. It should be clear to every one that integration of health sciences training, an integrated health manpower production, will demand a national co-ordinated educational policy.

Allow me therefore to try to identify the principles of a policy for integrated training.

Willingness will have to be the foremost principle: a *willingness* to effect changes in educational programmes and a *willingness* to provide for a continuous study of the *interrelationship* between education and health services requirements.

Readiness is another basic requirement: a *readiness* to develop existing training facilities for new tasks, a *readiness* to train completely new *categories* of health personnel, to *reorient* the training of existing "classical" categories and even the *re-training* of existing health workers for community oriented teamwork.

Accommodation must also be provided for the principle of exposing the full health team to the same orientation. And with *well-trained* medical practitioner care to assume leadership of this team of health workers, including *their auxiliaries.*

Furthermore, education in the health sciences must be directed towards the satisfaction of the health needs and demands of *people* and not primarily towards *professional interest*. And it must be adapted to the local needs and resources with careful attention to manpower and financial limitations. May I remind you that the cost of an academic hospital bed is the same as that of a sophisticated modern dwelling and ten of these beds per final year medical student is the major norm used to work out the size of an academic hospital. This is the reason why we have 2,000-bed academic hospitals in our country, because some of our medical schools have final year classes of 200 students.

How successful have we been in the planning and implementation of all these principles? Are we training the right personnel and do we have sufficient facilities? To assist this symposium to come to a final conclusion, I would like to invite you to take a look at the present situation, as illustrated by the following slides.

1. *Medical density*, the number of medical practitioners per 10,000 population, is shown in this table. I would like to draw your attention to the situation in Russia, where feldshers are not employed because of a doctor shortage but to complement a very impressive medical force.

2. There are health authorities who question the wisdom of *training primary care workers*. But according to neutral observers, Soviet experience shows that it is possible to make a very useful auxiliary out of a student after ten, or even only eight, years at school.
3. We are in South Africa in a fortunate position that medical practitioners, dentists and the supplementary health professions are very effectively controlled by our S.A. Medical and Dental Council. This slid as does the next one illustrates only part of this Council's wide responsibilities.
4. Ditto.
5. This is evidence how the training of supplementary health officials is also provided for in our homelands.
6. The integrated training philosophy can be translated into meaningful planning and careful attention must be given to every component and resource.
7. To arrive at a firm policy, however, we must look at this unique challenge from the different levels of training:

A. Pre-"School" Level

In this respect the following tasks rest on the shoulders of the health team:

(a) To assist school and other teachers responsible for career guidance.
(b) To convey the message that all personnel not necessarily only medical doctors, with the appropriate level of skills, have heroic functions.
(c) As members of the health team to take an active interest in school activities and to do all we can to strengthen the scientific preparation for health careers.

B. Undergraduate Level

There are at the moment two interesting academic experiments in progress to integrate the training of health workers in a team approach.

The *University of Valle in Colombia* has a Division of Health Sciences in which are grouped the Faculty of Medicine and all other faculties with responsibility for teaching health professionals.

Secondly, the *University of British Columbia* has set an example which is apparently being followed elsewhere in Canada:

(a) To prepare groups of health professionals who are able to provide more effective and economic health care because of shared undergraduate, graduate and continuing education.
(b) To reduce the rapid escalation of costs of educating health professionals by providing common facilities, such as lecture halls, libraries, communications and campus services.

Integration has been attempted by moving along three lines:

(i) Providing individuals who can be useful to all faculties and schools.
(ii) Producing facilities which can be used by all.
(iii) Identifying learning experiences which students from a variety of schools can share.

In all these programmes it is realised that the *relative newcomers* in the field of health – the medical social worker, medical sociologist and health economist - must be exposed to the same basic orientation as medical students, nurses and others.

C. VOCATIONAL OR SPECIALISED LEVEL

Planning of vocational training necessitates an examination of factors such as

- whether the health worker is being properly utilized in the tasks he was trained for
- whether he is ready and able to cope with these tasks
- the fields in which the health worker is lacking confidence.

Two developments in vocational training merit special reference:

(a) The vocational training schemes for general practitioners in Great Britain.

(b) The Mastership Course in Public Health of certain medical faculties in the U.S.A. where a medical degree is not a prerequisite as with our diplomas in public or community health. This multiprofessional course is certainly unique in the field of the integrated health professional training.

D. CONTINUING EDUCATION LEVEL

This is a tool to improve health care by maintaining and improving the competence of the health team.

A large number of post-graduate courses for all categories has been organized by WHO especially during the past 4 years and over 50,000 fellowships have been awarded since 1947.

The objective of continuing education is to refresh and advance basic professional knowledge, thereby inculcating the idea of health sciences being a life-long study.

Self-instruction and so-called *check* programmes must be made available to all health workers and I can think of many ways to satisfy a variety of needs.

The course for general practitioners offered by the University of Pretoria leading to a *Mastership in Family Medicine* can serve as a guide in the planning of courses for professionals without forcing them to take study leave.

Primary Health Worker Level

I have already dealt with the feldsher and I would like to refer to the system planned by WHO whereby individuals selected by the villagers are given a basic health training.

A working document on *the village health worker*, and his training and utilization, was published in three languages in 1974 by WHO. These workers will carry out their health activities in their communities on a part-time basis.

Teacher Training Level

Competence in teaching does not play a decisive role in the appointment of lecturers in medical schools and little has been done in our medical faculties to prepare a medical scientist for his role as teacher. I am sure this must apply to many other related fields.

A *handbook* was prepared by *WHO in 1975* to assist teachers of the health sciences in improving their competence, planning and implementing of educational programmes. Furthermore, a *Centre for Educational Technology in Health Sciences* was established recently in Egypt.

From 1970 to 1974 the University of Illinois College of Medicine, at the request of WHO, trained WHO fellows to acquire a master's degree in education and they are now responsible for setting up regional teacher training centres to teach the teacher to teach integrated health sciences.

CONCLUSIONS AND RECOMMENDATIONS

1. The preparation of the medical student for community-directed teamwork should be revised.
2. Integration of physical facilities for training should be investigated.
3. In our future planning we should not refer to a medical faculty, but rather to a health sciences training complex.
4. A national co-ordinated programme to promote continuing education for all health professionals by a close liasson between career development programmes and educational policies should be drawn up.
5. The need for national curricular co-ordination to provide for a basic health care philosophy course in all disciplines is essential.

THE COMPREHENSIVE HEALTH SERVICE

Dr. J.N. du Plessis

I would like to think that by this time the Comprehensive Health Service is known to all those who are involved with Health Services in South Africa.

However, because there may be people who have just recently become involved it may be of some advantage to recapitulate the basic principles of the Hospital Centred Comprehensive Health Service.

The Aim of an Ideal health care system, I submit, should be to supply total health care to all the people in the area of its jurisdiction in such a way that the most effective use is made of all available resources. Physical facilities, manpower, and the community itself are the main components. No duplication of Services can be tolerated. It follows therefore that all health disciplines, should be included and that services in each discipline should be rendered at Preventive, Promotive, Curative and Rehabilitative levels. Welfare services and health services should be integrated to the most advantageous level.

In order to be able to achieve the aims envisaged, in the most ideal fashion the service should be under *a single authority* and should be rendered by a *single agent*.

The active participation of the people themselves should form a major aspect of such a system.

I submit that such a Health Care System appears to be the ideal way in which the Population of a country could attain and maintain a state of complete physical, mental, and social well-being.

The Hospital Centred Comprehensive Health Service is based on the ideal outlined above and modified to fit local conditions. When it was introduced in 1970 the existing rights and privileges of all the participants involved in the health service had to be honoured. These participants included the local population, with regard to tribal clinics, and the Homeland Government Services with regard to Regional authority clinics.

The Departments of Bantu Administration and Development and the Department of Health, each had a contribution to make and some 95 mission hospitals belonging to some 20 odd denominations as well as 15 state hospitals and institutions had to be taken into consideration.

Services rendered by Provincial Administrations, Statutory Local Authorities and district surgeons, were incorporated into the comprehensive service. The involvement of so many participants very effectively neutralised a good percentage of the advantages envisaged and the concept had to be modified to what was practical. Such compromises can only work effectively where all the participants are fully dedicated to their different tasks. In this respect an asset of major significance is the fact that many of the staff members are mission orientated and are dedicated workers.

In practice it meant that various clinic services were allocated to a specific hospital which was asked to become responsible for all the health services in the area, allocated to it. This area became known as a "*Health Ward*".

The organisation which was established to *control* the service comprised a *Health Council* at hospital level and an *Advisory Health Committee* at clinic level.

The members of the Health Council are:

The Secretary for Health - Chairman
The Chief Ward Medical Officer
The Chief Ward Nursing Officer
The Magistrate or Magistrates of the district/s involved

At clinic level the members of the Advisory Health Committee were the clinic Nurse in Charge, a member of the hospital staff and at least two members representing the local community.

Very few stipulations were laid down as to how often these bodies should meet or what they should do at meetings. Because the Secretary for Health is the Chairman of the Health Council and the Chief Ward Medical Officer is in almost daily touch with the clinics the lack of "red tape" is thought to be a major advantage. It allows things to be done fast, and allows for a major degree of individual initiative at all levels.

The task of the Health Council is to plan and implement the Comprehensive Service in the Health Ward allocated to it. Many difficulties were immediately encountered, and in many cases some problems have yet to be overcome but with the establishment of Homeland Departments of Health and the take-over of Mission Hospitals a situation approximating the ideal is now in sight. At the very least the conditioning of hospital personnel to think more widely and the change from a hospital-bound service to a community orientated service can be claimed as an achievement of some magnitude.

The fact that the new Departments are Departments of Health and Social Welfare is an achievement which is still to be exploited to the full. This leaves a fruitful field of further development for the emergent Departments.

This symposium offers the opportunity to discuss some aspects of a Comprehensive Service which could fruitfully be explored more fully.

1. The *involvement* of the "Community" is a problem area which, I think, should enjoy more attention. It is necessary to define the concept "community" more closely and to identify it for the purposes of a Health/Welfare organisation. Taking the practicabilities of the Homelands situation into consideration it would appear that an identifiable community would consist of the subjects of a headman or a chief, or in a township, the population of a zone or suburb. It seems highly desirable that each such identifiable community should have its own Health Welfare organisation.

   I think that this *community organisation* should be the moving force and focal point of local health services. At present this organisation, is

of course the Advisory Health Committee, but it still functions mainly as a clinic management organisation. The function should change and the emphasis should fall on Health needs rather than Clinic needs. All community health activities, by any voluntary organisations what-so-ever, should be co-ordinated by the Health Committee and such voluntary bodies should be considered as sub-committees of the Health Advisory Committee. "Care Groups" should be seen as such sub-committees. Environmental conditions should also receive more emphasis at this level. Only after the establishment of such a Health Committee should new facilities such as a clinic be made available to a community. Only then would the participation of a community become significant. Particularly if they were to be involved in the planning and building process would the feeling of participation be strengthened.

It has also now become important that the community should have greater representation at Health Council level, and the presence of at least one additional member appointed by the Homeland government could hold advantages. At the same time one wonders whether community representation at clinic level should not become a more local affair, and that the appointment by the homeland government should be delegated to the Secretary for Health and Welfare. The Advisory Health Committee should be entrusted with a welfare task as well and in fact become a *community organisation*. The clinic would automatically become a *Community Centre*.

2. Another sphere which requires closer scrutiny is the integration of Health and Welfare services. It is clear how this work at *Head Office* level, and the benefits of close liaison between the two disciplines at *Institutional* level, has been accepted practice for some time. At the level of services in the *community*, (at clinic level therefore) there is at present no way in which health-orientated welfare services can be rendered, and therefore no clear way in which the participation of the community could be ensured. It would seem to be an advantage to have a *community worker* on the staff at every clinic. A suggestion of the role of such a unit has already been sent to all Secretaries for Health. The salary paid to such a person would be amply repaid if it resulted in active participation of a community in its own welfare services.

3. A further field which could be investigated is the establishment of *minor settlements* for the aged and physically or mentally disabled at selected clinics. The advantages would include the fact that these patients could be housed in relatively inexpensive buildings; would remain in their own communities and would receive nursing cover from the clinic and medical cover from the Ward Hospital. It could also create a source of employment for local assistant nurses. Catering could be at a relatively unsophisticated level and in the absence of local facilities laundry could be done at the hospital. This degree of decentralisation should not present any major management problems which could not be solved with assistance

from the hospital.

It also seems possible that this service could be rendered at less than the present cost, particularly capital cost.

4. It has also become clear that a very large percentage of the funds available for health are in fact being absorbed by *physical facilities*. The building of new hospitals, renovating the old ones and just routine maintenance dissipates large amounts of money. Sophisticated apparatus is very expansive and it requires highly trained staff to operate these medical toys efficiently. It may be necessary to stress the fact that major services can be rendered with a minimum of expensive equipment. The great need for extra-institutional services and particularly for the erection of clinics cannot be met because of insufficient funds.

   Under the circumstances it would seem that *mobile clinics* and *mobile health teams* visiting fixed points regularly is the alternative. It is recognised that this is not as satisfactory a service as would be rendered at fixed clinics but to render a hospital bound service is of course completely unacceptable. This is not a new concept but it seems to be mandatory to expand the mobile services to bridge the gap.

5. Strangely enough, I have found that such concepts as "hospital centred" and "comprehensive" have been interpreted in ways which differ from what was originally intended. By "*hospital centred*" was meant that the service would have the hospital as *head office* and that Health and Welfare services would be *administered* from the hospital. All the staff and all the facilities in a Health Ward would be welded into a single organisation, and the service would be rendered to all the inhabitants of the allocated area. Any tendency to make the service "*hospital bound*" should be remedied promptly.

6. The concept "comprehensive" also, apparently, has different meanings. In the context of Health Services in the homelands, I think, it should retain its usual meaning, viz., "*All-inclusive*". This multi-dimensional and multi-directional approach to Health, I submit, is the only acceptable one and must be pursued with the utmost concentration. It may be of interest to stress the comprehensive approach with reference to specific disciplines. One readily accepts a comprehensive obstetric service with Community and Hospital Obstetric Services as the components - but what about Comprehensive Pediatric, Orthopaedic, Surgical and Psychiatric Services?

   How should Health Education fit into the whole and, (extremely important), what about environmental services such as housing, water purification and sewage disposal? What about a comprehensive Rehabilitation service? Surely a comprehensive Health and Welfare service should include services to the total population, in and out of hospitals, the aged, the handicapped, the

poor and the rich?

In times of financial stringency such as these, surely services in hospitals should be limited and extra-institutional services expanded rather than the reverse?

7. When considering these very important aspects which still have to be introduced or which have to be refined and having the very desirable end result in mind one becomes acutely aware of the fact that this *service must be rendered by people*. At this moment there are people from all over the world involved in the Health Services to the inhabitants of the Homelands. These people, for the most part, come and go. The education of the permanent residents, to enable them to really participate in their own Health and Welfare services, must be seen as a major duty of all those involved in the service at present.

   Here one must stress the need for *management training*. Whether it be for medical, nursing, administrative, catering or other general purposes the service can only be rendered satisfactorily if the management is of a very high standard. And the scarcity of experienced managers is, I suspect, the most neglected, and most vulnerable aspect of our present service. I must therefore appeal to all the highly trained staff in the homelands, never to forget that next to their immediate allocated task, the training of their successors must be rated as the highest priority. In this context one can only say "So much to do, so little done".

   In conclusion I would like to sum up the situation by saying that the basic concept of the Hospital Centred Comprehensive Health Service appears to be a Health Care System which is able to offer solutions to all problems. It is now in its adolescence but, married to welfare service, will soon attain adult status and great things are expected of it.

Thank you!

PHYSICAL FACTORS WHICH INFLUENCE HEALTH

Dr. J.J. Crous
Secretary for Health, Lebowa

When one is confronted with the question: What are the most important factors responsible for illness? — various people may react differently and several answers to this question may be offered. Some people would react quite vaguely and blame several factors without attempting to supply any valuable solutions to alleviate the problem. Others may react rather fanatically, especially on the subject of health in the developing countries, and attribute all evil to either

poverty or
overpopulation or
ignorance.

I think it is very necessary to avoid such political pitfalls if a real objective evaluation of the health problems is to be given.

A more realistic approach would be to stick to the principles which we were taught at the Medical Schools of Pathology: Diseases are classified as:

Congenital
Traumatic
Inflammatory
Metabolic
Neoplastic

At present, traumatic and inflammatory diseases prevail in Lebowa. It is true, though, that the knowledge of pathology has changed considerably, since our days of medical training and will continue to change in the decades to come. This is even more so in the case of the developing countries. Moreover, development in itself poses particular problems related to health and, while some of our present health problems would be solved or alleviated along the way, other conditions will become more prominent in the process of development. Already such diseases as

Obesity
Hypertension and
Alcoholism

are attaining epidemic proportions in our Black urbanised comminities. Perhaps Diabetes Mellitus will follow soon.

Congenital diseases are not very common in Lebowa and when they occur, they are either rapidly fatal or cause very little inconvenience to the patient. A fair number of these conditions can now be cured, if discovered early.

Trauma, together with infections, I would say, are the commonest physical factors responsible for ill-health in our area. The most common cause of injury is violence: it was said that violence is the commonest cause of death among Black males in Johannesburg. Poisoning does occur at times, although quite how often we will probably never know. Accidents are common too, and an increase in this area is to be expected with the establishment of more and more industries and increasing numbers of motor vehicles on our roads.

Pulmonary Tuberculosis is still by far the most prevalent notifiable infectious disease. However, it is not the commonest infection. I have no doubt that Schistosomiasis is second to none when it comes to infectious diseases. Cases of Malaria are still found in much too high numbers and even the World Health Organisation had to admit that Malaria would probably never be eradicated; the best that we can hope for is to control it. Typhoid is the second commonest notifiable disease and only strict sanitary measures would succeed in controlling this problem. It is, however, not the commonest enteric disease: Gastro-enteritis in Black children is not only much more common, but also mainly responsible for the high infant mortality rate.

One infectious disease which has been amply eradicated, is Small Pox. The last case in Lebowa appeared in 1970. Vaccination can achieve such goals and the present emphais which is placed upon prevention rather than cure is a move in the right direction, but one must take into account that natural immunity would suffer as a result. Babies of vaccinated mothers would not enjoy quite the same protection as before. Another paradox in the development of health services is that viruses would become more prominent as the battle succeeds against bacteria and parasites. Poliomyelitis has almost become a disease of the past. Plantar warts, however, is a very stubborn disease which is quite common in Lebowa, often with serious crippling consequences to the patient. The Marburg virus and Lassa fever have invaded Africa and hitherto unknown viruses may evolve as our future enemies.

Metabolic diseases are not very common in Lebowa. Diabetes is probably the most important true metabolic condition at present. It is not the internal metabolism which is at fault, however, but more often what comes into the body from outside, or fails to enter the body that may have grave metabolic consequences. In this respect alcoholism and malnutrition are the greatest culprits. Alcoholism did not present any serious problems untill the era of urbanisation was entered and the European type of alcoholic drinks became available to our subjects - another acrid fruit of development! Protein calorie malnutrition was aggregated by the same process, but did exist for many years in the cultural history of the African people. Ignorance, and not poverty, is at the root of this problem.

The most feared health hazard that can effect the human body, must be cancer. Neoplastic conditions are not all malignant and although life could be made very uncomfortable by a number of benign conditions, it is really the malignant diseases which are a threat to life. In the people of Lebowa Carcinoma of the Uterine Cervix is the commonest of all cancers, followed by liver cancer, carcinoma and melanoma of the skin and then by breast cancer. During the past few decades there has been a very interesting increase in the number of oesophageal carcinomas. The reasons for this incidence are not yet clear, but it could very certainly be attributed to some prevailing eating and food storing habits. Carcinoma of the bladder is much less common than would be expected with the existing prevalence of Bilharzia. In this regard there seems to be a marked difference in the epidemiological pictures of South Africa and Zambia.[1]

The biggest problem in neoplastic diseases does not lie in its incidence, but in the advanced stages in which it is discovered, due to unduly prolonged delay before medical advice is sought. This is true not only of cancer but of most other conditions too. In many instances deficient transport and communication facilities could be blamed, but more often ignorance and neglect are the causes for this delay. This serves to illustrate to us all once again the important rôle which health education could and should play in any health service. Health education has quite fittingly been referred to as: "The science of living".

Our Health authorities are continually fighting against diseases which may attack our bodies. We must be big enough, however, to admit that our very attempts to achieve this goal may be at fault. Moreover, health does not merely imply the absence of disease or infirmity but health, by its definition, is a state of complete physical, mental and social wellbeing. According to de Beer[2] health services, in order to be effective, must balance adequately between:

Preventive	—	Curative services
Hospital based	—	Community based services
Primary	—	Secondary and Tertiary health care
Economic progress	—	integrity of the environment

In order to achieve this delicate balance, it has become imperative that a single authority assume full responsibility for all health services, including curative, preventive and promotive services, within its predetermined area of jurisdiction. This comprehensive approach was introduced into the Homelands in 1970 by the South African Government and was since accepted by the Homeland Governments in the establishment of their own Departments of Health and Welfare.

An effective health service requires adequate funds. The Lebowa Health Budget represents an expenditure of ±R13-00 per citizen this year and the demand is increasing. The American figure represents 8,3% of the gross national product. It is, however, not so much the lack of funds which is a limiting factor, but the appropriation monies should be taken into account. In Lebowa a growing proportion of the health budget is being absorbed each year by pensions and grants, resulting in a steady decrease in the amount available for actual health services. Hospital accommodation is a very costly service, especially when monuments, instead of efficient hospitals are being erected. In 1973 the cost of erecting hospitals was R10 000 per hospital bed, in the case of general hospitals and R18 500 in the case of academic hospitals. Home care, on the other hand was shown to cost only 10% of the amount needed for hospital care. Of the patients attending hospitals, 70% could be treated on an ambulatory basis. It is therefore not only better, but cheaper to emphasize prevention rather than cure, community treatment rather than hospital treatment, and health rather than disease.

Another strategic factor in the delivery of an effective health service, is the availability of manpower. The medical density in Lebowa is only 0,7 doctors per 10 000 people, as against 5 per 10 000 for the rest of South Africa and 1,6 per 10 000 for the rest of Africa. Nursing manpower is much more favourable with 17,9 nurses per 10 000 in South Africa.[2] It is obvious that we have to rely on our nurses, to a very large extent, for the delivery of primary health care. We in Lebowa fully realise their value in this regard and have put this to full practice.

Medical knowledge is another strategic commodity. The half life of medical knowledge is said to be 5 years, indicating the utmost importance of continuing education and study. Not only did our knowledge of the handling of health matters improve considerably over the past decades, but the pattern of pathology is continously undergoing changes. A study in England[4] has shown the following changes in disease profile over the past century:

	1948-72	1901-10	1956-57
Infectious and respiratory diseases	47	29	13
Circulatory diseases	12	19	48
Cancer	2	4	18
Unknown and ill-defined diseases	39	48	21
	100	100	100

In the United States of America, in the age group 5-14 years, malignancies were responsible for 3% of deaths in 1940 as against 14% in 1970, while violence as a cause of death rose from 20% to 50%. Is this the price that we are going to pay for development?

In contrast to the highly developed countries, conditions in the less developed regions are still much more amenable to treatment. We still find ourselves in the era of infectious, traumatic and nutritional disorders which often react dramatically to therapeutic measures. A survey was done recently at one of our hospitals, taking a sample of a thousand consultations, and the ten most common reasons for consulting the hospital, were found to be:

Violence, accidents and injury	18,6%
Uro-genital infections	11,8%
Ear, nose and throat infections	11,1%
Vague and non-specific complaints	7,7%
Respiratory infections	5,2%
Rheumatic aches and pains	4,4%
Dental complaints	4,3%
Gastro-intestinal infections	3,1%
Infectious diseases	3,1%
Skin and subcutaneous infections	2,9%
	72,2%

Furthermore, according to statistical information, the ten most common

causes of death in our homeland are:

"Natural Causes"	17,9%
Tuberculosis	10,6%
Pneumonia	8,4%
Gastro Enteritis	7,3%
Cardiac Failure	6,6%
Kwashiorkor	3,8%
Cerebrovascular disease	2,3%
Prematurity	2,3%
Measles	2,0%
Cancer	1,0%
	62,2%

People in the cultural setting, still found in most instances in Lebowa, have altogether different ideas about influences responsible for disease. Except for traumatic incidences, where a definite physical factor could be identified as a possible cause of their illnesses, most maladies are attributed to supernatural causes. Gelfand,[3] interrogating 250 such patients, found that the following factors were blamed by them:

Witchcraft	68 cases
"Badimo"	176 cases
Unfaithfulness	6 cases

As a result of their cultural beliefs, most patients would consult their "dingakas" first, before seeking professional advice from a doctor. Whether these "dingakas" could be indicated as another factor responsible for neglect, is difficult to tell. Gelfand is of the opinion that they are not really in opposition to our services and that they are of value in the handling of neurotic and even psychiatric disorders.

We must look forward, though, and realise that development of the homelands would lead us away from these cultural ideas of the past. We must realise that in the future new enemies may attack our wellbeing. The dangers of viruses and the problems related to urbanization have already been mentioned. Industrial development will bring about its own changes. The conservation of the integrity of the environment should be a future challenge which should be accepted *now*. We would have to look into the soil, the water and into the air, in order to discover betimes any possible physical factors which may influence our health.

But above all we shall still have to look up into the sky — towards Him Who created both man and his environment and who instructed us "to be fertile and multiply and fill the earth." It is only in continued faith in Him and guidance by Him, that we shall be able to avoid the pitfalls and paradoxes and prejudices that may cross our paths, and deliver the quality of health services which will enable every citizen to realise his birthright of health and longevity.

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PSYCHOLOGICAL FACTORS IN HEALTH

Prof. A.G. le Roux

Introduction

The mind-body relationship has fascinated many a philosopher and it was in the writings of the brilliant Frenchman, Rene Descartes, that the most acceptable working model for this dualistic, yet unitary, functional system was first conceived. He postulated that the pineal gland, situated at the base of the brain, was the point of contact between the mechanics of the body, and the spiritual, non-physical control of the soul. Even though the validity of this belief has long been discounted, interpretation of the functional dualism of mind and body remains a matter of serious research to this day, particularly in the interrelated fields of medicine and psychology. The truth remains, however, that psyche and soma as entities can only be separated for academic reasons. Each continues to influence the functional effectiveness of the other. With regard to health, hazards threatening the one system will directly or indirectly threaten the other.

It is intended to consider in this paper variables of special significance for the psychological well-being of Blacks in South Africa. By implication, it also reflects on physical health.

The nature and incidence of disorders

It can be postulated that all cultures serve a fundamental purpose of providing for the biological and social needs underlying all behaviour. If, on the other hand, conflicts are reduced to their very essence, it would appear that these will also relate to biological and social needs. In terms of this somewhat simplistic correlation, it can be deduced that conflicts are universal.

Cultural variations may affect thought content and expressive behaviour, and these in turn may affect the nature of disorders. Hence, in its ramifications, each culture inevitably has the potential for conditions which may precipitate excessive stress and conflict which finally may lead to mental disintegration.

Perhaps because of the variance found in the interpretation of disordered behaviour, a conspicuous discrepancy also appears when the incidence of mental abnormalties is investigated. Especially where underdeveloped groups are involved, contradictory findings are often reported — findings which may even imply that such groups are less susceptible to mental disorder. (Le Roux, 1973; Dohrenwend, 1974; Lipowski, 1975.) If all the available data and also the relevant rationale for the seeming discrepancy can be standardized, and furthermore, if all this can be subjected to statistical verification, such incidence and prevalence differences will disappear.

Moreover, it is obvious that disordered individuals can be easily accepted in an environment where cultural values and belief systems are reconcilable with the nature of the disorders. If the attitudes and beliefs of the group are such that it accepts that nothing can be done about the afflictions; or that

the latter can be ascribed to supernatural forces; or that they can be counteracted by witchcraft, the disorders not only lose much of their fear-provoking force, but become part of life itself. The "knowledge" of the "origin" of the affliction makes the presence of the disordered person less objectionable. It, indeed, becomes unnecessary to label the condition and the person — and yet another statistic is lost.

Finally, with the uncertainty prevailing about the categories of disorders encountered among Black people with virtually no records of countless patients treated by witchdoctors, and with a negligible number of knowledgeable diagnosticians, it is obvious why the illusion may exist that relatively few mentally deranged people are found amongst Africans.

But the conditions outlined above are rapidly disappearing. Problem cases of the past will now (suddenly) have to be *handled.* Living space is diminishing, educational sophistication is increasing, rejection of tradition is prevalent and rural tranquillity is disappearing so that peace and quiet is granted to only a few privileged human beings.

All the reasons why Blacks previously could not or would not be considered for psychological treatment (and by implication also medical treatment), are something of the past. An explosion in the need for treatment can be foreseen. It is only the tip of the iceberg which is discernible.

Precipitants of mental disorder

The point that specific cultures allow more or less opportunity for the development of mental disintegration cannot be argued. It is obvious that the slow pace of a donkey-cart on a little used rural dirt road cannot precipitate the same quantity and quality of stress as the rumbling noise and confusion of the underground systems of London, New York or Paris during peak periods.

Similarly it is self-evident that fairly serious personality disorders can be tolerated in a sparsely populated area where the disordered individual does not necessarily violate the personal space of others. In an uncomplicated environment, where mental and physical speed plays a relatively unimportant role, disordered individuals can be absorbed without untoward inconvenience or disadvantage to others.

In the current world, modernization has an insistent, almost tyrannical, influence on the life-style of almost all people anywhere on earth. Cultural groups are implicated in the process of what is called *development,* almost irrespective of their inclinations. For physical and mental health, this "development" contains an element of risk which on closer scrutiny is at the same time perplexing and disconcerting. In one respect modernization brings conveniences and facilities for more effective treatment and care of those in need. On the other hand conditions are created with equally serious health hazards. In studies where acculturated groups were compared in terms of psychological traits with unacculturated groups, it was found without exception that the acculturated group was negatively affected as regards well-known psychological dynamisms, e.g. frustration, aggression and hostility, depression, insecurity, anxiety, withdrawal,

apathy etc. (Tyroler, 1964; Hallowell, 1950; Labarthe, 1973; Ainsworth, 1962.) If we accept that the above factors form the basis of psychological deviations, then the price that we are paying for development is indeed very high.

The drastic effect of industrialization and urbanization on social change, has been seen since the time of the French Revolution. At the present time, migration and social change on almost the same scale is taking place among Black people of South Africa. A new life style, where a community system is (often forcibly) replaced by an individualistic system, is a common occurrence in the lives of vast numbers of Blacks moving from rural to urban areas in a quest usually for material gain. The sudden absence of contact with close relatives, reference groups and a known frame of reference, is without doubt a drastic disruptive force. The feelings of continuous longing, general depressive tone, psychological distress, helplessness and displaced aggression and anger are symptomatic of many dislocated and isolated individuals (Kantor, 1969). Thought processes and overt behaviour must be changed literally overnight, and adapted to new physical and mental requirements of a demanding and uncompromising environment.

The surfacing of Black consciousness all over the world may be politically expedient to the people involved. Psychologically it is disastrous in more than one respect because this movement has undoubtedly generated sufficient psychological stress and frustration to indirectly warrant the creation of many new posts for therapists.

Similarly, in the sphere of religion traditional belief systems have been altered by a zealous Christian crusade. The beliefs of centuries have been shaken, disintegrated and largely replaced by uncertainty. Little wonder that on the campus of this University more than 22 denominations are catered for and outside many more sects thrive and increase by the day.

The importance of nutrition in mental function in general, and mental health in particular, is generally recognized. It is known that elements such as sodium, potassium, chloride, calcium, etc. play a critical role in the functioning of the nervous system. In lower animals dietary deficiencies have a marked influence on behaviour. Chickens lacking a proper diet become irritable and young rats brought up on a magnesium-deficient diet show excitability. They become apprehensive and fearful and may even develop convulsions. Similarly, a dietary deficiency of casein caused heightened "emotionality" in rat weanlings (Kisker, 1974, Sobotka, 1974). The effects of nutritional deficiencies on humans have been widely reported. Intellectual retardation, increased emotionality and increased timidity resulted from protein-deficient diets (Cowley and Griessel, 1964; Griessel, 1967). It is furthermore postulated that adaptation to dietary rehabilitation is a slow process extending over two or more generations. The influence of dietary deficiency is also illustrated by megavitamin results. Thiessen and Mills (1975) found that megadoses of vitamin C, B, B6 and pantothenic acid caused a reduction in sleep disturbances, hyperkinesis and perceptual dysfunction with children. Although the animal studies point to the behaviour and mental deteriorative effects of

nutritional deficiencies, care should be exercised with final deductions. In humans the possibility exists that the social factors usually coexisting with the conditions of malnutrition may be the true precipitating forces (Pollitt, 1969; Weyl, 1976). In view of the known dietary habits of Blacks the research results suggest that this factor may also exert certain pressures in causing mental ill-health.

Apart from all the above-mentioned precipitants, mention must still be made of the "usual" factors involved in mental disintegration! No reason at all exists why Blacks should be exempted from the disorganizing effect of stress experienced on account of love problems, identity crises, educational incompatibilities, suffering on account of financial inflation, the disrupting effect of physical diseases, vocational competetiveness, etc.

Treatment and impediments

Attempts to treat mental and other disorders exist with all human groups. That therapeutic techniques will differ in various groups are self-evident. Conceptions of disease and the nature of treatment will depend on the beliefs, values and expectations of members of the group. For the Westerner, the emphasis is on the scientifically proven, and only treatment based on systematic, empirical research is warranted. In less developed countries, animistic approaches are the only known and accepted means of dealing with disorders. Many reasons for the popularity of the latter treatment can be advanced.

Relatively few psychiatric centres are available. The healer's belief system coincides with that of his patients. His elaborate and well-integrated theories of etiology are culturally shared. According to his patient's belief, he is in contact with, and is the transmitter of, supernatural powers. He arrives at his diagnosis without interviewing his patients and is definitive in his diagnosis and prognosis. The efficacy of his treatment has undergone some empirical validation while the superiority of Western methods have (if only in the minds of patients) not been convincingly demonstrated (Prince and Wittkower, 1964).

For these reasons, and perhaps also for economic and practical reasons, diagnosis and psychological treatment of Blacks according to Western standards, are still in their infancy. Promoting growth in this field unfortunately cannot be an easy matter.

It is axiomatic that a therapist must operate on a level of complete understanding in order to treat various disorders effectively. Empathy in a social and cultural context is indispensable for proper diagnosis and treatment. The many problems which may exist in cross-cultural therapeutic ventures make the danger of failure imminent and real.

Impediments to rapport, resistance to treatment, deleterious effects of cross-cultural transference, are phrases often encountered as symptomatic of cross-cultural interactional transactions (Carter, 1972; Vontress, 1971; Krebs, 1971; Bernard, 1972; Sager, 1972.)

Changes in society have emotionally intensified and significantly altered

many kinds of interracial therapeutic situations. Expectancies of antagonism and rejection by patients may cause feelings in therapists that could only adversely affect treatment procedures and therapy outcome.

In view of all the above-mentioned considerations, it would be academically naïve to believe that traditional divination and treatment procedures should be dispensed with. Such attempts to force the issue appear to be doomed to failure, as occurred in Mauritius and Egypt (Prince and Wittkower, 1964). As a transitional measure the animistic approach should be tolerated and blended with the scientific system, while education and development is allowed to effect a change of attitude and of belief. This is appropriately illustrated by Lambo's efforts which is reported to be meeting with success. (Lambo, 1974).

The future

It must be accepted that witchdoctors have, over many centuries, made an invaluable contribution towards health care in many parts of the world. The statement has even been made that their successes do not significantly differ from those of modern practitioners (Torrey, 1972). Yet, in terms of standards accepted the world over, where scientific research forms the basis of planning and organization, it would seem only realistic that treatment and care of psychologically and physically disordered individuals should be planned along the same lines.

In view of their effectiveness elsewhere in the world, the following recommendations may be considered:

The training of clinicians should be actively propagated. With possible resistance emanating from a frame of mind adhering to tradition, consideration might be given to creating an acceptable post with a new title, e.g. assistant medicine man!

A mental hygiene organization specifically directed at Blacks can be instituted. It is tragic to hear frequent references made to uncontrollable tsotsi elements when it should be realized that many of these youths are ordinary individuals, temporarily psychologically deranged and in search of an identity.

Internship-posts should be created as the existence of such posts will encourage psychology students to qualify clinically.

Rural and urban clinics must be established. These could perhaps also be organized as information centres where the shock effect of sudden change can be lessened through proper information obtained from a person who could at the same time be counsellor and father-figure.

Crisis centres should be instituted where those with sudden serious problems can be cared for. Especially youths and lonely individuals suffering from temporary crisis conditions may need specialized assistance, which may be given at any time of the day or night. Such centres can cater for these problems.

A proper school guidance system should be launched where children can be appropriately prepared for imminent changes and all the frustration and stress which may be precipitated in the process.

Finally, although we may have a problem of great magnitude on our hands, the imminent cross-cultural research will be of great value to psychology, psychiatry and even medicine. Opportunity will be afforded to see the effects of various scientific systems and social forces in the handling of mental disorders. The experience of planning, organizing and applying systems which may allay and prevent mental disorder offers unique scope for establishing the value of notions and postulates hitherto untested.

Benefits may also result from systematic planning where records are compiled in such a fashion that nosological and symptom patterns may be correlated. This would lead to a better understanding of the impact of specific cultural systems, customs and practices as precipitating forces in derangement.

What is perhaps even more important, is that a refinement of labels and terms applied to the wide range of disorders amongst Blacks should become operative. The usage and concomitant clarification of terms and concepts can contribute largely to the better understanding of the nature of culturally-relevant disorders, if such exist.

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CULTURAL FACTORS INFLUENCING HEALTH

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INTRODUCTION

The present need to consider cultural factors in providing health services augurs well for the future of health and medical services in the developing world for this is a recognition, though belated, of the fact that time is long past where the developed world could arrogantly impose a service on the indigenous people without consultation with them or even a study of how, or why they survived before the advent of Western Civilisation with its advantages and impedimentations - side effects or the evils that a good thing brings with it, such as rain accompanied by hail or lightning.

On this matter, Chesler quotes Benjamin Paul as follows:

> Our rationalistic bias leads us to classify people as reasonable or unreasonable but people are neither reasonable or unreasonable in the abstract. By their own cultural standards their behaviour and beliefs are reasonable; by the standards of others they are unreasonable. To alter their point of view, it is necessary to *understand their* point of view.

For some strange reason, it's only when it comes to providing health and medical services among the so-called underdeveloped or developing communities, that very little regard is given to their socio-cultural background and yet scientists and others working with lesser creatures spend large sums of money and time to study their habits, mode of life and generally what makes them tick, before a decision is made of the appropriate action.

In this connection, Lyle Saunders discusses the kinds of misconceptions and bias that may influence judgement in cross-cultural situations. Assumptions about human nature may be used to defend the *status quo*, support invidious judgements about the behaviour of groups, and provide moral support for engaging in courses of action or inaction. As the intrusive group, those providing health and medical services to the people of another culture, must take the initiative in avoiding and overcoming the effects of ethnocentrism. They must be prepared to make them acceptable. The medical worker needs to look beyond the patient and his symptoms and to be aware of the extent to which the immediate medical or public health situation influences and is influenced by many elements in the social environment, such as traditional health practices.

ACCULTURATION AND MIDSTREAM PRACTITIONERS

In trying to get to grips with this situation and making, the initial study of the community before providing a service, the intrusive group has to rely on the next layer, namely that of indigenous groups who have undergone western medical training and in the course of this have also moved further away

from their peoples to fill in the gaps. Very often the young Black Medical Officer provides information near enough to what the expatriate senior/superior would like to hear.

Fortunately as the Black officer gains experience he begins to look back with some sense of Black conscientiousness into his past in order to determine if the traditional Black medical practice did not in fact contain some useful elements that could be rescued, improved and applied.

Evidence of this appears in the increasing number of articles appearing in professional and other journals by Black medical practitioners giving an appraisal of traditional medical practice and some of the useful things that could be salvaged.

SOME ASPECTS OF CULTURE

It is not the purpose of this paper to produce a treatise on culture but merely to indicate its role in the decision making and provision of health services in developing countries. In a general way I have no quarrel with Linton's definition namely that, "Culture is the configuration of learned behaviour and results of behaviour whose component elements are shared and transmitted by members of a particular society".

Many authors on this subject are also generally agreed that culture includes phenomena of three different orders namely (1) Material - products of industry (2) Overt behaviour and (3) Psychological, that is the knowledge, attitudes and values shared by the members of a society.

If the real culture of the people consists of actual behaviour, an element of dynamism is indicated and therefore periodic research to identify changing patterns must be undertaken rather than relying wholly on the version of anthropologists of a century and more ago.

IMPORTANCE OF BASIC COMMUNITY STUDIES

In providing medical services for developing countries, its is therefore important, as in any other field of scientific study, to make a study of *a complete way of life of a people* but especially as it relates to health, illhealth and disease; *the language and jargon in which these concepts are expressed*, the traditional services used, the decision-making process as to which service should be used.

A study of traditional medical practitioners, methods of diagnosis, treatment and their pharmacognosy are all essential. In addition, studies should be made of other elements related to medical practice which are not so obvious except after continued interrogation and assessment. It is obvious that this exercise will be identified while service is also provided. *Aspirations and fears of the local population must be identified.* For instance an experienced surgeon normally feels confident about his work and himself but the person about to undergo surgery always has some misgivings that he may not survive the operation.

In the South African Medical Journal of 22nd September 1973, it is stated, "whatever our attitude as men of science might be towards the true

witchdoctor is his traditional garb and nature, we should also be careful not to disregard or ignore his influence on his adherents. Every doctor knows that, even though he practices with the most conscientious attention in accordance with modern scientific concepts, a large part of his Black patients will always consult the witchdoctor as well for a "second opinion". The traditional, psychological indemnity which these traditional consultations bring about, is difficult to understand, but nevertheless it is of the utmost importance... .

In many developing countries except those whose acculturation had left them in mid-stream between the traditional and modern practices, the Chief or Tribal head was also the spiritual head and in order to maintain his position he had the most powerful witchdoctor.

In addition to normal healing functions the traditional medicine-man also has protective functions. These include protection against the elements such as lightning, protection against ill-wishers, protection of the herd against any contingencies, protection of the ploughing fields and the cattle kraal.

Because of this function which was accepted without question, a health service with a different cultural orientation can graft its preventive services, immunisation, and nutrition education on this concept of prevention which is already accepted.

The witchdoctor is also a key figure in any ceremonies of the community such as installation of chiefs, births, marriages, deaths. In certain urbanised and educated societies the "performance" of the witchdoctor in some of these ceremonies has become secretive because it is "not done" to have a witchdoctor with a flywhisk and the rest of his paraphenalia parading around at a ceremony in what is regarded as a modern household.

Under certain circumstances in South African Black societies, people who have discarded the cultural ceremonies may nevertheless be forced to call in the witchdoctor because of family pressure, as future mishap will be blamed on the fact that certain rites were not observed.

The modern practitioners cannot afford to ignore these attitudes and practices if they wish their own system of medical care to be effective.

Dr P.K. Mokhobo, writing in the S.A. Journal of Hospital Medicine of September 1975, observes, "The 'Western' doctor will encounter difficulties or engender opposition if he is not aware that he enjoys the honourable status in society which was and still is accorded the traditional medicineman.

The art of healing in ancient society is, as in western society, as old as life itself and was practised in close alliance with religion. These two powerful forces inculcated over the years a deep sense of reverence for the skilful diagnostician-therapist. These elite members of society comprised several categories of generalists and specialists governed by a code of ethics ... . Arrogance, rebuffs, denigration of a patient and open disbelief of a patient's story were notably absent in all clinical work.

A "patient comprised: a sick person plus a number of peripheral cohistorians, witnesses, prospective co-therapists or nurses and other specially assigned 'important' members of the family".

I am informed by people who should know that a mental patient who is brought to the hospital by an escort and *not* a relative is at a distinct disadvantage because Mokhobo's co-historians are important to give a full and more reliable history. These then are some of the factors that have to be taken into account in providing a health service in developing countries. It is important to pause a while and consider the entourage of the sick person. The medicine-man expected and welcomed the sick and all the accompanying members of the family.

The bureaucracy of the present day medical practice may not even allow these people through the main gate, let alone into the consulting room. This separates the patient from his people, ushers him alone and sick into a strange environment of white-coated doctor and his nurse, possibly both of them not even knowing his language to begin with. Imagine the shock! How possibly can she give a coherent history? Where are Dr Mokhobo's cohistorians, witnesses and co-therapists to fill in the gaps? No wonder the next consultation will of necessity have to be the medicine-man who will understand the need for relatives to give corroborative history.

STAFF PREPARATION

Staff preparation and training is also an important aspect in the provision of health services in the developing countries. In addition to specific professional training, the cultural background already indicated several times in this paper should be emphasized. It is not enough to say that the person belongs to the same cultural group and therefore should know. In many instances methods of application of many cultural concepts should be unlearned and replaced by a more updated orientation. It must be borne in mind that training in our medical schools, nursing colleges and other institutions where paramedical staff are trained are still largely in the hands of people who are of a different cultural background to the group to be served, and the tendency is to produce a prototype, probably with a greater sense of superiority and disregard for his people and their cultural setting.

It is known that some stafff members of hospitals have told tuberculosis patients that unless they also consulted the witchdoctor they would never recover because tuberculosis is a result of bewitchment and not treated by western doctors. Therefore during the course of training, efforts must be made to change some of the beliefs and concepts of trainees that are detrimental to health rather than just superimpose modern scientific concepts on old traditional ones. Efforts must be made to train all categories of staff taking into account the fact that the economic situation, availability of staff with entrance qualification would be at a premium to begin with.

It is a chronic tendency of staff from developed countries who also form the first few layers of management in developing countries to completely ignore the prevailing situation and circumstances of the local people *in their hurry to impose their own standards.*

Maintenance of good standards in any service must be taken as a priority but for any developing country to be pushed into the framework of a highly westernised mould at first contact is to precipitate a disaster. No wonder when the western expatriates withdraw total chaos in the services results.

NEED FOR PROVISION OF A GOOD BUT MANAGEABLE HEALTH SERVICE

It pays greater dividends to provide a simple but efficient service rather than a very elaborate but cumbersome one. Important in health services planning is also the realisation that up to 80% of people in developing countries may in fact be in the rural areas.

A well-known paediatrician visiting South Africa a few weeks ago dubbed these cumbersome monstrosities (Hospitals) as "Palaces of Disease". Earlier Doctor Carroll Behrhorst had made a survey of church-related hospitals in the developing world and reported as follows:-

> "Inside our hospitals, we find modern practices and equipment, dedicated staff and respectable rate of cure. Outside their walls, misery, poverty and disease march bleakly over the landscape".

This is such an irrefutable record of the truth that I can never resist quoting Dr Behrhorst further when she goes on to blame "the false gods of medicine, an eleven-storey £5 000 000 teaching hospital block in a developing country, *where patients enter by the back door* while a policeman guards the front one for the doctors and nurses - *a temple for the glory of the staff and of medicine*, rather than for the care of the common man".

SUMMARY

1. It does seem from the foregoing that more serious planning and research should be undertaken in order to provide adequate and *acceptable* health services in the developing countries.
2. That each project of health must start with consultation with the local community whilst in the meantime studying their cultural background and both their felt and unfelt needs.
3. That in spite of a strong inclination to accomodate the feelings of the sponsors the service must nevertheless concentrate on meeting local needs and aspirations.
4. That even if it hurts medical scientists the fact should remain clear that there must have been a form of medical practice in the developing countries before their advent and that these must be studied, classified, and codified, and whenever possible improvement on those medical practices that were useful

   A people cannot survive for centuries depending on the healing powers of the traditional medicine-man and it be finally discovered that there was nothing in his practice that was worthwhile.

5. That formal, in-service and continuing education should form part of the attempt to improve health and medical practice.

6. The experience has shown that a number of small health clinics scattered strategically over a country provide more efficient service than one huge hospital in the middle of a city where lack of transport, communication, money and loom larger than life itself.

It is only fair, in conclusion, to show appreciation for the brave efforts of those stalwarts in modern medical schools who have variously poineered departments of preventive, social or community medicine in their institutions.

NOTES

(a) I prefer the term "medicine-man" to witch-doctor. I was however assured by a white witch-doctor at the Museum of Man and Science, that witch-doctor is a more appropriate description. It connotes in addition to a doctor and healer some mysticism and awe- which one experiences in the presence of a reputable withch-doctor.

(b) One can add that ordinarily if one summons a western dotor to his home, the neighbours are not unduly concerned except for the sick but if a witch-doctor spends a night at one's home, not only the neighbours but the neighbourhood become restive and restless.

HEALTH SERVICES FOR DEVELOPING COMMUNITIES: MEDICAL NEEDS AND RESOURCES

F.P. Retief
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It is a sobering thought that the southern tip of Africa became colonized because the European housewife of the 15th century, discovered that spices from Molucca meatly disguised the taste of putrefying meat in her refrigerator-less kitchen - and so sent her sailor-husband off to the Far East to find these spices. At school we learnt how scurvy conspired with the spice-less European housewife to force the Dutch East India Company into establishing a European community at the Cape - and ever since then Southern Africa has been the meeting place of contemporary Europe and developing Africa. Much of what was acceptable for Europe proved equally acceptable for Africa - but in the field of Health and Medicine we have almost certainly been too slow in recognizing that a European-styled organization needed radical adaptation before it would fit the African scene. The basis of Western health organization has always been the doctor - a luxury article, who, in this country, takes seven years to train at a cost of between R30 000 and R40 000.

In the developing Africa's health system, the doctor is probably still centrally placed, but as will become abundantly clear in the course of this Symposium, it is imperative that his new role should be carefully define. The doctor's precise function in the health team will be discussed by other speakers - I shall limit myself to a survey of the medical manpower position in this country, and venture some thoughts on what the future medical man in developing communities should perhaps look like.

MEDICAL PERSONNEL AVAILABLE:

Each community should plan its health system according to its particular needs and resources. The next two speakers will concentrate on the role of nurses and pharmacists in a developing community - however, table 1, briefly compares figures for these two health personnel categories with numbers of doctors and dentists in the R.S.A.:

Table 1 : R.S.A. Health Personnel (WHO, 1973)

	Total	Population per person
Doctors	12 060	1 970
Dentists	1 767	13 450
⋆Nurses	87 242	270
Pharmacists	4 761	4 990

(⋆All Registered Categories)

From a recent WHO publication (1973) it is possible to compare the R.S.A.'s medical personnel position with that of other countries (Tables 2-5):

Table 2: Americas:

	Medical Practitioners (Population per Doctor)	Dentists
R.S.A.	1 970	13 450
Canada	630	2 860
Puerto Rico	800	5 380
Jamaica	3 920	18 290
Haiti	8 510	52 260
Uruguay	910	2 200
Chile	1 840	2 650
Colombia	2 180	8 040
Paraguay	2 410	12 490

Table 3: Asia, Oceania:

	Medical Practitioners (Population per Doctor)	Dentists
R.S.A.	1 970	13 450
Israel	360	1 240
USSR	370	2 520
New Zealand	850	2 890
Japan	870	2 740
Turkey	2 020	8 740
India	4 400	68 370
Malaysia (East)	10 000	64 380
Afghanistan	26 090	--

Table 4: Africa:

	Medical Practitioners (Population per Doctor)	Dentists
R.S.A.	1 970	13 450
Swaziland	7 190	76 693
Botswana	14 770	162 470
Lesotho	21 520	494 960
Lybia	1 240	17 210
Egypt	1 520	11 940
Kenya	16 290	191 970
Nigeria	25 550	690 760
Uganda	35 440	386 040
Ethiopia	73 00	1 064 580

Table 5 Europe

	Medical Practitioners (Population per Doctor)	Dentists
R.S.A.	1 970	13 450
Czechoslavakia	430	4 090
West Germany	540	1 970
Greece	580	2 010
Poland	610	2 220
Sweden	680	1 160
Netherlands	700	3 470
France	710	2 270
Portugal	960	136 700

In respect of medical practitioners, South African figures compare very favourably with those for the rest of Africa, are rather similar to those for South America, but very much worse than the figures for Europe, Israel and the USSR. A comparable situation holds for dentists, although South American figures tend to be better than ours.

The categories of medical personnel in the R.S.A. are represented in Table 6 (S.A. Medical and Dental Council. December, 1975):

Table 6: Doctors in R.S.A.

Medical Practitioners:

Interns	905	5,5%
Non-Specialists	10 101	61,9%
Specialists	3 246	19,9%
Dentists	2 070	12,7%
Total	16 322	100,0%

Among the 2 070 dentists 114 (5,5%) are registered as dental specialists.

Among the *medical specialists* the position is as in Table 7:

Table 7: Medical Specialists in R.S.A.

Internal Medicine and Related Disciplines	485	14,9%
Surgery and Related Disciplines	1 010	31,1%
Paediatrics	198	6,1%
Obstetrics and Gynaecology	338	10,4%
Psychiatry	164	5,1%
Pathology	249	7,7%
Community/Preventive Medicine	750	1,6%
OTHER	750	23,1%
Total	3 246	100,0%

The *medical non-specialists* consist of two main groups, general practitioners and doctors in full-time employment. A WHO report (1973) states that 26,9% of all medical practitioners in this country are in full-time government service. Full-time personnel consists mostly of people in administrative posts, medical officers of various grades, district surgeons, etc. Also in this group, and with special relevance to the situation in developing communities, are doctors not registered with the Medical Council as specialists, but with advanced training in field such as Public Health, Medical Administration, Tropical Diseases, Statistics and Epidemiology, etc. Such training usually consists of the equivalent of one year of full-time post-graduate study, and one might perhaps refer to these very useful people as "semi-specialists".

In the R.S.A. salaries in full-time appointments are closely linked with post-graduate achievements, usually in the for of registrable specialist qualifications. The tendency is thus to specialise as rapidly as possible if longterm full-time employment is visualized. In our heterogeneous medical establishment, a high percentage of specialists would be acceptable in developed communities, but not in developing communities where the emphasis should fall on primary health care (usually community based, occasionally also hospital based) and the training of leaders of health teams. Such leaders are usually non-specialists at the general practitioner level, or in the above mentioned "semi-specialists" category.

A few selected specialists might be useful in the health team of a developing community, and it has become fashionable to propagate the training of community health experts, registered as specialists with the Medical Council. However, one wonders whether training in community health with special emphasis on the needs of developing communities, should follow our standard Medical Council specialization pattern - four years full-time training in accepted posts with registrar status, followed by a qualifying examination. It may be argued that in the primary health care set-up, reasonable numbers of "semi-specialists" personnel with limited post-graduate training in specific fields, such as Public Health, Industrial Medicine, Medical Administration or Epidemiology and Statistics, may be much more useful than true specialists with an all-embracing four year training experience.

The South African Medical and Dental Council is at present revueing its specialist register, instituted nearly forty years. With the passage of time it became clear that the large number of specialities were no longer uniformly comparable in terms of compulsory training periods enforced. The Council became distressed with the tendency towards excalating super-specialisation, but nevertheless realised that new specialities could not be refused without careful scrutiny. In this country we are to a large extent tied to an established (and possibly out-moded) British-American system of post-graduate training and specialisation, but this should not prohibit us from constantly exploring new avenues, perhaps more in keeping with contemporary health needs.

In their book "An Introduction to Social Medicine", Lowe & McKeown suggest that doctors should be divided into two categories - *doctors of first contact* and *consultants*.

Doctors for first contact could be either specialists or non-specialists, whereas consultants will always be specialists. In the developing community emphasis will then fall on daoctors of first contact as being non-specialist (general practitioners, medical administrators, "semi-specialists", etc.) or specialists of first contact (primary specialist).

Patients should have direct access to these specialists at first contact, and their specialities should thus be easily recognizable to the lay person. Such subdivisions could include doctors for *children* (in fact corresponding to present day paediatricians) doctors for *old people* (geriatricians), doctors for *"other" adults* (? generalists) and doctors for *pregnant women* (obstetricans).

The true consultants (secondary specialists) should probably only see patients referred to them by doctors of firts contact. Sub-divisions in this group, which will include most of our present specialities, could be as follows:

1. *"System-specialists":* The present day cardiologists and cardio-thoracic surgeon could combine to become a "total" cardiovascular specialist. Similarly the neurologist can neuro-surgeon could combine to become the neuro-specialist, the nephrologist and urologist could become the urogenital specialist, the clinical and laboratory haemotologists could combine to become the all round haematologist, etc.
2. *"Diagnosis-specialists":* In this category would fall Diagnostic Radiology, Nuclear Medicine, the Pathologies and Forensic Medicine.
3. *"Therapy-specialists":* Oncotherapy, Anaesthesiology, etc.
4. *"Community/Preventive Medicine":* As mentioned above the precise future of this speciality, very unsatisfactorily defined in our present specialist register, is unsure. Unless the employing authorities (predominantly the Department of Health) could find employment for large numbers of comprehensive specialists in this field, one doubts whether this important subject should be considered on a par with other specialities as we know them today.

In summary then it will obviously be necessary to determine priorities for developing communities in order to optimally deploy South Africa's available medical manpower. It will become necessary to re-consider our post-graduate training programs to ensure that the right medical personnel are trained - doctors of first contact as well as consultants. One trusts that the Medical University of South Africa, at present in an advance stage of planning, will spend much time in the structuring of their training programs to ensure that their graduates will easily fit into the new pattern of things to come.

PHARMACY

Mr. P.F. Retief

Mr. Chairman,

Ladies and gentlemen, the opportunity to share this platform with such eminent speakers who have preceded me in discussing this important theme indeed honours me. I always welcome the opportunity to speak on behalf of pharmacy as I believe the great majority of not only laymen but also professionals in the health services are not congnizant of the role to be played by the pharmacist in rendering a health service.

Pharmacy is a very old profession dating back to long before the birth of Christ. It is proud of its traditions and the role it has played in making available medicines to alleviate or cure those stricken by fever, pain or other ailments. Pharmacy has also kept pace with modern developments and I believe few other branches of science can compare with the phenominal strides made in the past twenty years in developing new medicines for combating diseases which were quite often fatal.

Before developing this discussion any further I would like to dispel any doubts or uncertainties about what a pharmacist is and coupled to this what pharmacy is.

I would like to do this by defining both concepts for absolute clarity but in doing this I am going to define a hospital pharmacy as this is broader in concept, covers the community pharmacy activities very aptly and I believe, fits in better with the later discussion. In describing a pharmacist I would like to do it as follows:

He is the legally designated custodian of drugs for the public and health services. His total primary function is thus the custody and supply of medicine to the general public and health services in accordance with the law. In addition to this he is an experienced, well-trained professional practitioner, well placed in the hospital and community health field to disseminate information on all health matters while also educating the public. He is by law personally responsible for all manufacturing processes and purchasing, thus ensuring the quality, efficacy and safety of all medicine supplied whilst also aiding in all pharmaceutical fields of research and development.

A general hospital pharmacy may be described as follows:-

The department of service in a hospital which is under the direction of a professionally competent, legally qualified pharmacist, and from which all medications are supplied to the nursing units and other services; where special prescriptions are filled for patients in the hospital; where prescriptions are filled for ambulatory patients and out patients; where pharmaceuticals are manufactured in bulk; where narcotic and other prescribed drugs are dispensed; where biologicals are stored and dispensed; where injectable preparations should be prepared and sterilized, and where professional supplies are often stocked and dispensed. (*Hospital Pharmacy* by William E. Hassan).

I know many of the audience who will be in disagreement with both the descriptions given but I would like to clarify the points of doubt which exist by touching on certain aspects of the practise of pharmacy as it exists today.

I am the first to admit that pharmacy as practised today in hospitals and community pharmacies, (you will notice I use the term community rather than retail pharmacy for very specific reasons) does not in all instances comply to my description. There are many reasons why, and I would like to mention but a few to enable the audience to assess for themselves why the present situation exists regarding pharmacy. The pharmacists himself is to a large extent to blame for not continuing to render a professional pharmaceutical service to the community in many cases, as was done by his predecessors up to approximately the end of the last world war. The rapid development of new drugs coming onto the market coupled to the then existing training of pharmacists imbued a sense of incompetence in many to cope with the changing situation in pharmacy. The "secundum artum" which was the stronghold of the pharmacists had been resting for centuries. The days of dispensing a prescription by compounding was becoming history while the role of the pharmacists became one of counting tablets and filling bottles of medicine already manufactured by pharmaceutical manufacturers. His skills as a compounder of drugs had been taken over by the pharmaceutical industry with, I believe, benefits to the public and the professions alike. Pharmacy, however have taken some considerable time to recover from this change in duties to be performed, but have done so extremely well.

I would like to highlight a number of functions as are being performed by pharmacists in their respective environments at present, thus giving a better understanding of the definitions.

The duties to be performed by all hospital pharmacists in the Republic of South Africa in future were accepted in principle by the Inter-Provincial Pharmaceutical Committee this year, and are as follows:

1. The provision, supply and control of drugs, disinfectants, biological materials and dressings throughout the hospital in a form which ensures their stability, purity, efficacy and acceptability for the treatment of patients, and the proper maintenance and control of all drug registers and records.
2. The development, organisation, management and control of effective drug distribution systems to ensure maximum patient safety.
3. The organisation and provision of a comprehensive drug information service with respect to availability of drugs, actions, indications, interactions and drug usage statistics.
4. For pharmacy and nursing personnel to ensure that users are aware of and confident in their responsiblities for drugs.
5. The initiation of investigations and research pertaining to packaging, distribution, manufacture and storage of pharmaceutical

preparations and the problems of pharmaceutical administration and professional practice.

The community pharmacist is at present mostly occupied in dispensing prescriptions, ordering goods for his pharmacy and rendering occasional advice regarding medicine to a customer specifically seeking it from him. I would like to mention here that the South African Pharmacy Board has accepted in principle that as from the 1st of January 1980 only a certain range of commodities may be sold by a community pharmacy. This will enable the community pharmacist far more time to fulfil his particular role in the health team in the community.

The pharmacist by Act must be the managing director of every pharmaceutical manufacturing concern and must also be in charge of all manufacturing processes as laid down by the Medicine Control Council.

Quite a number of pharmacists are today employed in administrative capacities at provincial or state departmental head offices to co-ordinate the pharmaceutical services rendered by such organisations.

After briefly reviewing the past and present situation of the pharmacist the question will immediately arise as to how and where the pharmacist fits in to rendering a health service in the developing communities.

It was clearly outlined by a previous speaker that it will be a hospital centered health service. I am thus going to concentrate on the hospital pharmacist primarily and briefly outline the other three roles the pharmacists may fulfil.

The hospital pharmacist, as could be deduced from the functions mentioned earlier, plays a very important part in the rendering of a health service to the patient in the hospital. I always see the treatment of a patient in a hospital as a team effort with the following as three major members of the team i.e. the medical practitioner, the pharmacist, and the nurse with the medical practitioner being the senior member of the team. They all, however, have equally vital and important roles to play in treating the patient. The medical practitioner is ultimately responsible for the patient, he diagnoses and prescribes medication;, the nurse sees to the welfare of the patient and administers all medication as prescribed by the medical practitioner; while the pharmacist is responsible for the procurement, storage and distribution of all pharmaceuticals for use by the patient. The pharmacist is the specialist on all facets of medicine and his primary function in the hospital is the supply and control of medicines. He achieves this goal by means of the following:

(a) Ward stock is supplied on a daily basis, these being only those medicines which are regularly used and are schedule 1 - 4 drugs or unscheduled medicines.

(b) Controlled ward stock is supplied of which a ward register has to be kept and includes schedule 5, 6 and 7 medicines.

Medicine is supplied to in-patients on prescription charts for specific drugs which are not ward stock.

Medicines to out-patients are also supplied on a prescription chart only but are usually already in a pre-packed form ready for issuing to the patient.

In the main dispensary of the hospital the pharmacist is responsible for:

(a) controlling the purchase of all medicines for use in the hospital and outlying clinics. To enable him to be really efficient at this he has to be acquainted with the prescribing habits of the doctors, and take into consideration the changes of the season to provide for the specific ailments commonly found during that specific time of the year. He has to take into account the increase or decrease in the number of patients treated, any new wards opened or closed, any additional clinics to be attached to the hospital. He has to be aware of any additional medical specialists who are going to practise in the hospital. In ordering medicine, he always has to take all these factors into consideration. He has to see to it that no stock becomes outdated on the shelf or redundant. If he notices this he has to notify the medical practitioners to obtain their co-operation in prescribing these medicines before measures have to be taken to destroy them, thus causing wastage.

(b) The pharmacist is also responsible for doing bulk compounding in the main dispensary for medicines which are in great demand for a specific medical practitioner. All empty returns from the ward boxes have to be cleaned, often relabelled and filled for issue the next day under his supervision. There are numerous items, whether they be liquid or tablets, which have to be pre-packed from large containers to small containers ready for issue to the patients at the out-patient department or to outlying clinics. The pharmacist has to see to it that all drugs are stored under the correct conditions as the following are but a few conditions under which drugs should be stored or else become a danger, or ineffficient, or must be discarded, i.e. in an inflammable store, in a cool place, in a refrigerator above 10^0C, in a freezer between 4^0 and 10^0C or in a dark place (out of in direct contact with rays of the sun). He must ensure that all medicines procured for the hospital conform to the highest standards, that labelling of ward stock is correct, and that ward stock is fresh and fit for consumption at all times. As pharmacist he is also required to keep the emergency cupboard, which is used after hours, up to date by checking the contents every day. He is responsible for checking the medicines on the emergency trays and should assist in obtaining chemicals for the analytical laboratory, special nutriments for infants, dressings, certain disposable items, X-ray films and chemicals and any other items used which have a specialised character.

The pharmacist is however ideally suited to fulfil the above role very well as the academic training he at present undergoes gives him more than sufficient knowledge and background for it. The role of the hospital pharmacist however is at present undergoing a vast change due to the greater in-depth academic training being given.

Certain hospital pharmacists are already undertaking the following

additional duties over and above what has already been mentioned:

(a) Additives to intravenous fluids. It has been demonstrated overseas that a considerable proportion of intravenous fluids to which additives have been added in the ward are contaminated to a greater or lesser extent depending upon the environment in which it was done and the method used. The pharmacists are now doing it in a laminar flow hood i.e. under aseptic conditions, thus ensuring sterility of the intravenous fluid plus additive. The pharmacist, due to his training, also at the same time scrutinises the admixture for physical or other incompatabilities quite often not visible to the naked eye. Factors such as the pH of the infusion solution quite often affect the efficacy of an additive, thus minimising the desired effect. These reactions are mostly known to the pharmacist and can be prevented before administering the drip to the patient.

(b) Information centres are being established by pharmacists in many of the larger hospitals. The pharmacist, as has been mentioned, is the specialist regarding all facets of medicine. Yet due to the vast increase in new medications not even he can cope with all the latest trends and developments.

He thus has to have a source of information on all aspects of medicine which he can refer to when confronted with a query by a medical practitioner. The information must be kept in such a manner that information is easily accessible. Iatrogenic diseases overseas are alarmingly high and the supply of all possible information to the medical practitioner is thus absolutely essential.

(c) The pharmacist is also becoming more involved in supplying information to patients regarding the medicine that has been prescribed for them. He not only issues medicine but discusses the way in which it should be taken, points out any side effects the drugs may have, warns against taking prescribed drugs with any other medication and discusses topics like safekeeping of medicine at home, hoarding of medicines, and any other relevant topics. He may be taken into the patient's confidence who may disclose to him that he has not been taking his drugs regularly, that the drugs disagree with him, or any other problem the patient may encounter of which the medical practitioner is not aware of. This information the pharmacist will then discuss with the medical practitioner.

(d) The pharmacist is partaking more and more in delivering lectures to hospital staff on matters such as drug distribution, the acts pertaining to drugs, drug incompatabilities, storage and many other topics. He should be utilised to address the public on matters such as self-medication, dangers of drugs lying around the house, drug abuse problems and many more matters which directly affect the public and their medicines. However to enable the pharmacist to cope with his ever- increasing task he must be assisted by supportive personnel in the hospital. The supportive personnel will be pharmaceutical technicians, administrative staff and labourers each doing specific

tasks under the supervision of the pharmacist if necessary. The pharmaceutical technician is a new concept in the Republic of South Africa but if utilised correctly and controlled by legislation will be of invaluable assistance to the pharmacist without being a threat to the future of the profession as such. He can perform the routine tasks of prepacking, ward stock, ward stock refills, dispensary stock replenishment from dispensary store, and many other duties now being performed by the pharmacist. The criteria for determining staff for a hospital dispensary has to be based on scientifically sound facts and figures. No magic formula can be laid down but as a rough guide the following have to be taken into consideration.

The number of beds in the hospital.

The type of activity of each ward i.e. medical, surgical, paediatric, obstetric, as well as the number of theatres and other sources will be supplied with medicine from the pharmacy. The number of out-patients who receive medicine, the number of clinics, and the patients there will also effect the work load of the pharmacy directly. The work to be performed by the pharmacy staff must be encompassed in modules. Each module must represent a specific task to be performed in the dispensary. The following modules may make up a general hospital dispensary i.e.

1. Filling ward boxes
2. Bulk compounding
3. Prepacking
4. Supply of medicines to in patients on prescription charts
5. Supply of medicines to out patients on prescription charts
6. Supply of medicine to clinics
7. Procurement of pharmaceuticals for the hospital
8. Replenishing dispensary stock from the pharmaceutical store
9. Ward rounds
10. Meetings, lectures, time spent on advising and discussions
11. Intravenous additive service
12. Information centres.

Break each module up into components representing the specific duties to be performed to accomplish that task. Identify the person who has to perform the task i.e. a pharmacist, a technician, under supervision of a pharmacist, an administrative staff or a labourer. Determine the time it will take each member of the staff to complete his duty in accomplishing the complete task.

Repeat this process with all modules that make up the specific hospital pharmacy and a very clear picture will emerge as to staff requirements for that specific dispensary.

It must however always be borne in mind that the pharmacist in charge of the main dispensary must visit all wards in the hospital regularly whilst also paying regular visits to all clinics obtaining medicines from the hospital. It will be his duty to keep ward staff and clinic staff informed regarding all facets of drug distribution, storage and supply as well as ensuring that the

patients are informed, wherever possible about medicine dosages, side effects and all relevant information possible to assist the patient. Here the pharmacist has a very distinct educational role to play especially as most of the patients are geriatric patients.

Before concluding, some statistics regarding training of pharmacists may be of interest to those concerned with employing pharmacists in the future. Statistics are as supplied by the South African Pharmacy Board.

The number of training institutions for pharmacists.

Blacks	1	University of the North
Indians	1	University of Durban Westville
Coloureds	1	University of the Western Cape
Whites	2	Universities i.e. Rhodes at Grahamstown and Potchefstroom University
	5	Colleges for Advanced Technical Education situated in Cape Town, Port Elizabeth, Durban, Johannesburg and Pretoria.

Universities	
Durban Westville	21
University of the North	8
Potchefstroom	106
Rhodes	56
Western Cape	12
Colleges for A.T.E.	
Cape	17
Durban	15
Port Elizabeth	13
Pretoria	21
Johannesburg	55

Mr. Chairman, I believe it is very evident to all those present today that the pharmacist must be a very important member of the health team in the developing communities although being under-utilised at this point of time in the R.S.A.

In the developing communities the pharmacist could also by private enterprise initiate his own pharmacy but then only if he is absolutely sure that it will be economically viable so that he will be able to render a professional pharmaceutical service similar to that of his colleague in the hospital. This especially is true in so far as his role as adviser on medicine is concerned. The pharmaceutical manufacturers could make an in-depth study of the possibilities of manufacturing pharmaceuticals in a developing community.

In conclusion Mr. Chairman I would like to make an appeal to the following:

Firstly to the University authorities to make provision for training a far greater number of pharmacists to cope with the ever increasing demand for pharmacists for your developing communities.

Secondly to the Bantu Homeland authorities to stress the urgency of training pharmaceutical technicans for the developing community hospitals.

Thirdly to the Bantu students to qualify as pharmacists and pharmaceutical technicians and fourthly to all bodies concerned with the rendering of a health service to realise the important role of the pharmacist in the community, the hospital and the health team; and to utilise his capabilities more fully in view of his academic and practical training. I can assure all those concerned with the rendering of a health service that it has been proved that where pharmacists were fully utilised in the hospitals this always resulted in considerable financial savings, which I believe is of vital importance especially today.

Thank you Mr. Chairman.

NURSING NEEDS AND RESOURCES FOR DEVELOPING COMMUNITIES

Miss C.I. Röscher

I would like to express my sincere gratitude to the organizing committee for inviting me to speak at this international symposium. A British counterpart of mine after visiting the Republic of South Africa on more than one occasion and studying the concepts of planning a comprehensive health service made the following remark with typical British humour: "We in Britain have developed our health services to such an extent that there is hardly room for anything new or challenging. All we can do now is reorganize our services! I envy you in South Africa where you can start with a new canvas and paint a new picture". This statement holds a tremendous challenge and I sincerely hope that the health and social services team will work together harmoniously to paint the new canvas depicting the health services scene.

Drs. J.P. Roux and J.N. Du Plessis have set the scene and outlined the background and objectives of health services and therefore my paper will be based on what they have said with the emphasis on nursing.

In the process of developing a comprehensive health service in the developing communities it is obvious that nursing services will form an essential corner stone in the total health services. Nurses in the homelands have to assume far greater responsibilities than their colleagues from Western countries, mainly due to the shortage of doctors.

The health needs of any country are varied and depends on the factors influencing the specific country. Whatever the needs may be, there must be resources of *money* and *manpower*. In this regard we should take notice of what Dr. David Owen, Minister for the Department of Health and Social Security in the United Kingdom said - "develop a low cost mentality, and a willingness to make and mend".

The nurse administrator at top management level must be able to deviate from steroetyped guidelines we used to work on e.g. (W.H.O.)

1. One nurse per X number of people in total population
2. One public health nurse per X number of people
3. One midwife per X number of live births
4. X number of R.N. to y number of nursing assistants.

The nurse administrator must pose the question whether the new needs, new hazards and new aspirations in a comprehensive health service are being met. The major cost in a health and social service is manpower. It is unlikely that more manpower will become available soon due to e.g. economic stringency. So, if needs are to be met quantitively, one is left only with the possibility that such resources as are available, both in money and manpower, must be *redeployed* so that the areas of greatest need are provided for.

This means assessing differing needs of the specific community and making decisions on priorities.

In order to fulfil these challenges, the nurse administrator will have to:

1. make surveys of existing nurse manpower available;
2. determine the exact function of nursing personnel in the "new" comprehensive programmes;
3. determine the kind of training which the nursing personnel need in order to carry out these functions;
4. determine what needs in the existing programmes should be augmented through in-service education programmes to equip the nurse for her expanded role.

Basic data based on the needs of the specific community would be needed to answer the above-mentioned questions:

1. **Present nursing personnel available:**
   (a) How many nurses in each category are now actively practising in a particular homeland.
   (b) Existing training schools and methods for preparation of personnel.
2.
   (a) The type of medical care and health programme as illustrated in health statistic e.g. birth rate, mortality rate, number of regional hospital beds, ward hospital beds, clinic services. Departmental epidemological reports serve to identify problem areas such as an increase of tuberculosis or malaria. In this manner the knowledge of the nurses in a particular area can be brought up to date by means of appropriate co-ordinate in-service education programmes. Such programmes are not only stimulating but also reinforce the concept of the extended role, and render support.
   (b) Cultural aspects and social customs.
   (c) Communication systems.
   (d) Economic situation of population.
   (e) General education of population.
   (f) Geography, topography and climate.

The general assumption that all countries need more nurses may not be true in every instance. The primary need may be better utilization of the existing nursing personnel rather than an increase in numbers. Two examples to illustrate this statement:

1. Where patient hospital days are shortened by improved medication and treatment, e.g. in tuberculosis and psychiatric conditions, patients can be adequately treated in the community by means of clinics and a nurse can deal with larger numbers than in hospital.
2. The nurse prepared to function in a comprehensive health service deals with the full range of preventive, promotive, curative and rehabilitative services and does not cater for one category of patients only e.g. midwifery.

Certain policy decisions have been made namely that there should be a

shift of emphasis towards community care and community involvement.

There is also an increasing awareness of certain preventive aspects which include family planning and maintenance of health. The shift towards community care is increasing the pressure on the primary health care services and facilities. The planning of regional hospitals, ward hospitals, cottage-type hospitals and clinics to form a total complex which renders services in a defined geographical area influences the nursing manpower profoundly. This system implies that there will be one staff establishment, - one pool of nursing resources. A chief nursing officer will be in charge of such a total complex and judicious, optimal utilization of nurse manpower is possible. Supervision and rotation of personnel are key concepts in this organization. Continuous stimulation of staff to fulfil new roles for new needs can be achieved in this milieu and continuing education, geared to meet the needs, can be offered on an original basis. A nursing college with a senior principal and tutorial staff should be an integral part of the total complex.

A report on a Technical Conference, Copenhagen 15 - 24 November 1961 published in book form: "The Nurse in Mental Health Practice", rightly emphasizes that the socio-cultural attitudes will influence the attitude of the nurse and therefore determine her role, whether it is in the positive or negative direction. The acknowledgement of these socio-cultural factors and their practical and formative potential constitutes a basic consideration in the theme of this symposium.

Nurses in developing communities are held in very high esteem among the African people and are looked up to in all life situations. These nurses speak the local vernacular and - a fact of particular significance - live in the local community. This total acceptance puts her in an admirable position to help and guide the community regarding health matters and, in fact, all aspects of community development.

The South African nurse is undoubtedly particularly well equipped to meet the considerable demands made on her skill and judgement in fulfilling an extended role. The nursing profession is justly proud of the achievements of our black nursing colleagues. Apart from their educational and professional background they are privileged to derive from their African background an innate ability to meet even the most taxing situation with creative resourcefulness and positive, unflappable tolerance.

The nursing profession plans nursing education to meet the service needs of South Africa. Appropriate examples are that in the present basic curricula emphasis is placed on preventive and promotive health and the integrated approach allows for a nurse to be prepared as a general nurse, midwife and psychiatric nurse in a combined course.

We have a corps of well-trained nurses of all races whose work compares favourably with the highest standard in any other country. A pattern has developed among nurses that they often become "certificate collectors" taking one course after the other. This attitude cannot continue to prevail in a developing community as it is too costly. While one must continue to train

selected nurses at university level to become the educators and top administrators in the nursing profession the importance of training nurses functionally for a specific task is important.

Consideration should be given to evaluating the position of the enrolled nurse in the health team and to accept and incorporate this category of nurse to a larger extent as a full team member. During 1976 the S.A.N. Council agreed on two important principles which will have a direct bearing on services in developing communities.

1. That the enrolled nurse who has 2 years of formal training can specialise in 5 different areas in general nursing, community health nursing, psychiatric - geriatric nursing, and mental retardation.

   These programmes will be practically orientated and geared to prepare a functional nursing unit.

2. The extension of the period during which enrolled nurses will be accepted for general nurse training is 1980.

   Nursing studies, like other studies, are costly and should be carefully planned for the specific community,. The possibility to orientate all categories of nursing personnel to understand the concept of the patient as a member of a family within a specific community, could be achieved by exposing them more and earlier in their training to community work. A comprehensive health service demands that nurses have a wider outlook.

Continuing education for nursing personnel must receive top priority. Great success has been achieved where the nurse practitioner has assumed an expanded role e.g.

1. Primary health care courses which enable the community health nurse to learn additional skills.

2. Psychiatry has been successfully integrated in the comprehensive health care plan, particularly the all-important facet of aftercare. In some of the developing communities the community health nurses manning the clinics have been taught basic principles e.g. liaison, referral, consultation, early recognition of mental aberrations, basic principles of supportive care, and knowledge of the appropriate chemotherapy to deal with psychiatric patients successfully after their discharge from hospital.

   Psychiatry is a perfect example of a service which can be commenced at a very basic level in a comprehensive service. Such communities retain a high tolerance for psychiatric illness in their midst. Do not plan costly hospital beds e.g. for mentally retarded but consider small village systems adjacent to the clinics and utilize the local community members to assist with the caring of these people. In the early stages of establishing mental health services in a community with limited psychiatric facilities, the provision of simple accommodation for psychiatric cases with kindly nursing care, can be the first step in the gradual development of more specialized services.

The integration of psychiatry with other existing health services must be considered. The general practitioner and general nurse can be taught to develop a positive attitude and render a service during the time required for adequate consultative services.

CONCLUSION

A developing community can learn from the mistakes of other countries - so let your attitudes be flexible. While all the other professional team members may not be available in sufficient numbers interprofessional conflict cannot be afforded. Let there be a merging of professional roles and do what is best for the community whether it is, strictly speaking, the role of the nurse or social worker or occupational therapist.

The nurse is often handicapped by the traditional role expectations and it is imperative in this total process to change not only her self-image but also the expectations regarding her own role or those of her co-workers in the health team.

The challenge to complete your canvas as a vivid, colourful master piece is in your hands.

BACKGROUND TO AND PRESENT PROVISION OF HEALTH SERVICES FOR THE BLACK POPULATION OF SOUTH AFRICA

Dr. J.P. Roux

1. We are on the eve of witnessing the establishment of a complete series of independent health departments, one in each Homeland in the R.S.A. It is therefore fitting for me to sketch briefly the origin and development of these health services. I will endeavour to give you a concise and clear picture from the earliest contact of western medicine with the Bantu races of Southern Africa, along the road of development extending over two centuries, until the handing over of full responsibility for health services to each independent Bantu State.

2. The first contact was made on the eastern border of the Cape Province at the beginning of the 19th Century. The Bantu in this territory were dependent for their simple medical needs on the *farmers* who entered the territory with the object of settling there. They were also dependent on *missionaries* who, besides ministering to their spiritual needs, inevitably also had to attend to their bodily ailments.

The aggressive attitude adopted by the Bantu led to several wars. Troops sent to restore order and thereafter to keep the peace were accompanied by *military doctors* who subsequently settled near the various garrisons. After the cessation of hostilities, *normal administration* followed, and doctors began to settle in the villages where hospitals soon sprang up.

"The growth of medical practice and medical institutions in *Natal* followed a similar pattern: Missionaries, Voortrekkers and finally British. It is the pattern of the Eastern Province, the pattern of the inland plateaux of Southern Africa and now we shall see that it is the pattern also of Natal. First always the missionaries carrying the vanguard of civilization to the indigenous tribes; then the trekboeren seeking fresh pastures (and the Voortrekkers) opening up the country and making it fit for the white man; and on their heels the British to consolidate, to develop and to build towns."

3. The development of health services in the territory north of the Vaal also followed its own pattern.

The influence that missionaries had during the previous century in regard to the establishment of medical services for the indigenous population of Transvaal was negligible.

It was only on the arrival of the *Voortrekkers,* who settled in large numbers in the territory, that home remedies came into general use. As a result of their settling, doctors like Dr. Poortman and others appeared on the scene, although initially this field was mainly dominated by quacks.

The *discovery of gold* in the Transvaal, like the discovery of diamonds in Kimberley, was also a decisive factor in the rapid development of medical services in which the non-White population also shared. This was the first occasion on which we became acquainted with the direct result of the introduction of deep-level mining.

4. At the beginning of the twentieth century new vistas appeared on the medical horizon in the Cape Province.

Whereas legislation in the medical field was enacted piecemeal at the beginning of the previous century, the end of the century was noted for the consolidation of all medical legislation, especially to counter the danger of infectious diseases such as smallpox.

The medical pattern then developed in a much clearer and better organized way, and even new fields were covered. Of these, the greater interest in public health was particularly noteworthy. The necessity for better coordination, guidance and advice in respect of health matters was fully appreciated by the authorities, and this led to the appointment of fulltime health officers in the Administration.

5. With the establishment of the Union of South Africa in 1910, the colonial governments were replaced by provincial administrations for general hospitals, while the Central Government accepted responsibility for infectious disease hospitals. The Central Government also accepted responsibility for extra-institutional services, especially district surgeon services, while local authorities after Union to a large extent assumed responsibility for the provision of environmental services.

6. As regards the Bantu homelands, health services were mainly provided by district surgeons in the employment of the State who provided these extra-institutional services from the nearby White areas. Clinics were established at the various mission stations by the respective mission societies and medical cover for these clinics was mainly provided by district surgeons. With a few exceptions, as for example the Elim Hospital in Northern Transvaal (1899) and a few hospitals in the Transkei, most mission hospitals became established actually only after Union.

Because mission hospitals were initially mainly dependent on their own financial resources, these small hospitals consequently developed very slowly. With the exception of about half a dozen of these hospitals which developed during the decade 1920 to 1930, the majority of mission hospitals really only began to develop during the two decades 1930 to 1950. This was mainly attributable to the establishment by the provincial administrations during this period of their own hospital departments which could concern themselves with the subsidisation of mission hospitals in particular.

Since 1953, district surgeon services in the homelands have been supplemented by personal health services in the form of district nursing clinics of which there were approximately 500 in 1970. This was mainly attributable to the favourable subsidisation received from the State.

7. During the period 1960 to 1970, the emergent homelands witnessed large-scale developments in which health services also shared. As a result of this, the Central Government has since 1964 accepted full responsibility for capital expenditure on mission hospitals, and *large sums* have been voted for the purpose. This prepared the way for the next step in the development of health services in the Bantu homelands, namely the

acceptance by the Government in 1970 of responsibility for the running costs of all mission hospitals in the Homelands.

8. During the period prior to 1970 health and welfare services for the Bantu in the R.S.A. had, as previously stated, been provided by all three authorities, namely by the *Central Government* through the medium of its Department of Health, by the *provinces* through their health sections. As a consequence of this divided responsibility, these services could not develop on a co-ordinated basis and the purposeful expansion necessary to keep pace with the political development was thereby handicapped.

9. It therefore became necessary to establish a new system of health and welfare services for the emergent national groups to eliminate the defects and shortcomings which arose out of the division of responsibilities. These services had to be so planned that a gradual transfer of responsibility for health services to the various self-governing Homelands could be effected with minimum disruption and disturbance of the system. In 1970, the Government itself assumed full responsibility for all health services in the Homelands, and the ideal of one central health authority became a reality.

10. The following organizational structure for the provision of a comprehensive health and welfare service embracing promotive, preventive, curative as well as rehabilitative services was suggested. The service would be controlled from a central office, and the Homeland itself would be divided into health and welfare wards in which the hospital and its welfare institutions form the centre with a number of satellite health and welfare centres in the area. The Chief Medical Officer, the Chief Nursing Officer and the Chief Welfare Officer would excercise control from the hospital and institutions while Committees at clinic level would act in an advisory capacity. To enable the comprehensive community health and welfare service to function efficiently and to ensure the active participation of the population, it is essential that the health and welfare personnel concerned should be organized, trained and formed into a well-knit, responsible and dedicated team of which the Chief Medical Officer is the leader. Health and welfare community centres should be attached to a central hospital with its welfare institution and are controlled administratively, financially and professionally from the hospital, as satellite institutions. They obtain all their staff, equipment and medical stores from the hospital and more serious cases are evacuated to the hospital from the centres for hospitalization.

11. A comprehensive health and welfare service is based on the health and social needs of a community and should be organized along lines which will bring it within reasonable reach of the entire population.

The need for and the provision of health and welfare services in a community could be summarised as follows:

i. *The need:* A healthy environment in which children can grow up, families thrive, and adults work.

   The Service: Environmental Health Services whereby a wholesome water supply, food with high nutritional value, and healthy living and

working conditions are ensured. Health officers (inspectors) form the backbone of this service. There should be one to each health ward.

ii. *The need:* Promotion of health, protection against disease and prevention of disabilities.

The Service: Health-promotive services include health education, family planning services and nutrition. Preventive and protection services include

- immunization services
- mother and child health services (MCH)
- ante- and postnatal services
- maternity services
- geriatric services

iii. *The need:* Treatment of the sick within the community whenever practicable, and care for the socially destitute.

In Service: Out-patient clinic and home nursing, and welfare services for the physically and mentally sick and the socially disabled.

iv. *The need:* Diagnosis, treatment and care within a hospital or institution.

The Service: Hospitals and specialist services of all kinds, and institutions for the aged, crippled children and adults, and the mentally retarded.

v. *The need:* After-care and adequate support after hospital treatment, and social rehabilitation.

The Service: Rehabilitation services at hospitals (occupational and speech therapy and physiotherapy), the provision of medical appliances, rehabilitation for work in the labour market, and social rehabilitation within the community.

12. The health and welfare services will have to succeed in establishing and maintaining the optimal balance between the health-promotive, the preventive, the curative, and the rehabilitative and welfare components of a comprehensive service. It will have to be of maximal relevance in terms of the specific health needs of specific cultural identity groups as determined by the socio-cultural norms and disease patterns of such individual communities.

13. **Requirements for Community Health and Welfare Centres**

(a) Siting:

This should be determined with due regard to demographic features (settlements etc.), geographic features (water supply, accessibility, communications) after due consultation with the community concerned.

(b) Distribution:

The ideal would be to have one community centre for every 10 000 - 12 000

of the population, each with two qualified nurses, a number of enrolled nurses and a welfare worker.

(c) Planning of Community Centres:

The centres should be planned to accommodate a clinic as well as a community welfare centre on the same site with joint facilities such as waiting rooms, store rooms, toilets etc. Centres situated at longer distances from the central hospital should have a number of beds for maternity cases as well as beds for emergency cases waiting for transport to the hospital. Accommodation huts could be erected by the community in the proximity of the centre for the benefit of waiting mothers or patients who cannot reach home the same day.

(d) Furniture, Equipment and medical supplies:

Standard lists of approved requirements should be compiled by the Health Department and supplied in accordance with the plans of the community centre. The hospital will be the source of supply for all the centres.

(e) Transport and Communication:

In order to provide adequate communications between centres and institutions, while at the same time preventing excessive transport expenditure, it is recommended that maximal use be made of telephone communication and, where this is not feasible, of two-way radio communication.

All vehicles should preferably be stationed at the hospital. Multipurpose vehicles are recommended. Owing to the escalation of fuel costs motorised domiciliary services should be reduced to an absolute minimum.

(f) Water and Sanitation:

These have to receive very thorough consideration at all existing community centres and when the establishment of new centres is contemplated.

(g) Professional Staff:

In order to ensure that a comprehensive institutionally-centred health and welfare service functions successfully in the community concerned, due consideration must be given to the effective utilization of all existing categories of staff as well as the introduction of such categories of staff as are considered essential for the development of the service.

Doubly-registered nurses should be in charge of community health clinics until nurses with additional training in public health are available to take over.

14. **Organisation, Team-Work and Community Involvement**

In order to achieve the highest standard of services rendered, and in order to achieve the desired active involvement of the community it is essential that the entire staff at the health and welfare community centre be organised, trained and moulded into a wel-co-ordinated, responsible and

dedicated team.

Clarity is, however, necessary regarding the authority and seniority structure of health workers on the one hand and welfare workers on the other.

The fullest liaison between workers, between all sections and between centres and institutions should be fostered by all available means. There should be regular circulation of staff so that workers become aware of each other's functions and interdependence.

A sound team-spirit promotes good human relations and public relations. Each health and welfare worker should realise that the most formative service to be rendered lies in the right relationships between the fellow-worker, the patient, the patient's family and the community.

15. The health and welfare service will have to be tailored so as to give realistic and comprehensive attention to the needs of every human being as understood in the widest concept, namely the individual, the family, the community, and the environment in which each lives and works.

16. **Conclusion**

I have endeavoured to describe a broadly based, community-centred service supported by the other levels of the health system and with a wider community development responsibility that is called PRIMARY HEALTH CARE — a concept embracing health and welfare in its entirety and not restricted to the provision of medical care or personal health services.

17. Within the context of the strengthening of a national health service great emphasis should be given to the subject of primary health care. Some drastic and fundamental rethinking of the relationship between communities and their health and welfare services should be done. It is unlikely that the build-up of centralized services based on advanced health technology will effectively meet the overwhelming day-to-day requirements of the majority of people living in both rural and urban areas.

18. We must remind ourselves that the urgent health problems in rural areas often relate to lack of resources, to infection, to malnutrition, to lack of accessible potable water and to multiple environmental hazards. Such basic threats to health are unlikely to be countered by conventional health service techniques, however sensitively and intensively they are applied. The solution must be sought in a return to the wider mandate given to all health personnel to deal with health and health development in its all-embracing sense.

19. Therefore not only must we be concerned with devising means whereby everyone, everywhere, has access to basic health care and to more specialized care when it is needed, but we must see to it that positive steps are taken in conjunction with other sectors to deal with the prime factors causing the problems. Health and economic and social development in rural areas are closely interlinked. Whatever the requirements of a particular community it is unlikely that an approach confined to a single sector such as health will be successful. We should be fully aware of the

need to join forces with economists, agronomists, water engineers and community and rural developers for a combined approach.

20. To give realistic attention to the needs of every person in the community there must be trained men and women willing and able to make the service effective and acceptable to the community they serve. The allocation of staff to the various kinds of health care and the orientation of the training they receive must reflect the resolve of the Departments of Health in the different Homelands to provide balanced teams of health and welfare workers for even the remotest rural areas. To this end the training of the traditional health professions of medicine, nursing and para-medical personnel must be extended to include preventive medicine and social service.

21. Greater emphasis needs to be given to promoting more flexible attitudes of mind that will fit professional skills to the total range of problems confronting the community. Health personnel will have to learn from the outset of their training to deal with the real-life situations in the country such as the rural epidemiological conditions and the differing customs and beliefs of local communities. They must be trained so that they can work in teams and train, supervise and stimulate the interest of the local people in the practical work of the service The major part of health care can at this stage in our development be provided by nurses specially trained in primary health care. Present nursing education does not, however, adequately meet the communities' service needs ; schools of nursing like schools of medicine have focussed on care of the sick in hospitals to the detriment of disease prevention, health maintenance and health promotion. On graduation the young physician and the nurse find themselves ill-equiped to meet the massive health problems of their country. Due attention should, however, also be given to the training of health assistants and welfare workers — individuals chosen from the community which they are going to serve — and given a minimum basic health or welfare training. "Care Groups" should also be established in the communities providing health care and welfare services on a voluntary basis.

22. The establishment of a well-balanced health and welfare service is thus envisaged which will make it possible to make maximum use of all the available manpower which will have to include all professional, non-professional and voluntary health workers within a community, thereby providing a real, comprehensive and integrated service in the Homelands. An earnest appeal is made for your active participation in regard to the further development of these services.

SOSIO-EKONOMIESE ASPEKTE IN ONTWIKKELENDE LANDE

Prof. J. Swanepoel

Die voordrag wat ek gaan lewer handel met die sosio-ekonomiese toestande in die ontwikkelende lande. Ek het egter gereken om in plaas van 'n bespreking van 'n aantal sosio-ekonomiese aspekte slegs hier en daar 'n greep uit die magdom gegewens oor hierdie onderwerp te neem in 'n poging om u 'n algemene beeld te gee van die lewenstoestande in hierdie lande. Vandaar die enkele opmerking oor die eienskappe van die ontwikkelende lande, die landbou en mineraalontginning en industrialisasie slegs so in die verbygaan, omdat vir my, en daarop word die meeste klem gelê, die geweldige bevolkingsgroei in hierdie lande en die gevolglike lae inkomste en die groot en toenemende armoede sterk in die kalklig geplaas moet word.

Ligging

Dit is opvallend dat die ontwikkelende lande van die wêreld, net soos die ontwikkelde lande, behalwe vir die skeiding deur die Atlantiese Oseaan, 'n aaneengeslote geheel vorm. Die lande lê hoofsaaklik in die trope en dek die hele Suid- en Sentraal-Amerika, feitlik die hele Afrika en die Midde- en Verre-Ooste.

Die reënval is óf oorvloedig in sommige lande óf uiters skaars en onvoorspelbaar in ander dele. In die hoë reënvalgebiede is dit gewoonlik ook baie warm met die gevolg dat die plantegroei baie welig is en boerdery bemoeilik. In die dele wat minder reën kry, is die toestande nie veel beter vir boerdery nie weens die wisselvalligheid van die klimaat.

Die reën, maar veral die hitte in baie van die ontwikkelende lande is baie bevorderlik vir allerhande siektes onder mens en dier. Malaria is byvoorbeeld 'n siekte wat nie net baie sterftes veroorsaak nie, maar veral gekenmerk word deur die verlammende uitwerking op die gestel van die slagoffers. Sedert 1955 is grootskaalse veldtogte onderneem om hierdie siekte onder die knie te bring met die gevolg dat die persentasie van die wêreldbevolking wat vandag in malariageteisterde gebiede woon (Sjina uitgesonderd) op ongeveer 10% neerkom teenoor min of meer 63% voor 1955.[1]

Ook die gewone siektes, sommige waarvan in die gevorderde gemeenskappe skaars ernstige aandag geniet, neem groot afmetings aan.

Ekonomiese bedrywighede

Die belangrikste natuurlike hulpbron van die ontwikkelende wêreld is die bodem. Dit is dan ook vanselfsprekend dat enigiets van 70% tot 90% van die bevolking van die lande afhanklik is van die landbou vir 'n bestaan. In die ryk riviervalleie soos bv. die Nyl en die Ganges word jaarliks groot oeste ingesamel maar hierteenoor is die grond in die meeste ontwikkelende lande redelik arm aan voedingstowwe en is die landbou eerder ekstensief as intensief. Veeteelt is dan ook eerder die reël as die uitsondering. Die uitstaande kenmerk van die landbou is die gebrek aan ontwikkeling. Die metodes wat toegepas word is tradisioneel behalwe in die gevalle waar óf

die blankes 'n groot rol in die landbou speel óf waar van staatsweë pogings aangewend word om bepaalde soorte produkte op groot skaal te kweek. Die tradisionele boer se produksie is baie laag en is gewoonlik slegs genoeg vir eie gebruik. Opbrengs per eenheid grond of vee word beperk deur siektes en peste en plae en die gebrek aan die nodige kennis van gesonde landboupraktyke.

Alhoewel die meeste van die bewoners landbouers is, moet ons dit nie vergelyk met landbou in die ontwikkelde lande nie. Die oppervlakte wat bewerk word, is baie klein — van twee tot vyf hektaar en behalwe die boerdery-aktiwiteite is daar baie van die landbouers ook besig met so 'n bietjie koop en verkoop van goedere wat in die huis vervaardig word of selfs met 'n bietjie bouwerk in die omgewing.[2]

Onderontwikkelende gemeenskappe word in hul leefwyse gekenmerk deur sekere optrede wat in 'n groot mate vir al die mense van die verskillende gebiede geld. Die produksietegnieke is „eenvoudig" en die mense besit weinig wetenskaplike kennis. Mense en dierkrag is nog die vernaamste bronne vir krag weens die afwesigheid van meganiese kragbronne. Op landbougebied is die opbrengs verbasend laag omdat die metodes van bewerking hom nie leen tot hoë produkse nie. Foster som die situasie soos volg op:

"Environmental sanitation is poor, medical services are primitive, chronic illness prevails, life spans are short, and both birth and death rates are high. Illeteracy is the rule, and access to new knowledge is restricted. For the masses, these conditions mean poverty and uncertainty and limited freedom."[3]

Daar bestaan 'n hoë graad van fatalisme by die bewoners van hierdie gebiede. Hulle is gebonde aan die tradisionele manier om dinge te doen en daarby is hulle bewus van hul onvermoë om iets te doen om die gang van sake te verander. Teenslae word dus met 'n gelatenheid ervaar en aanvaar en so ook die goeie. In alles sien hulle die hand van die Een in wie hulle glo.

In byna die hele ontwikkelende wêreld word die landbou soos reeds aangedui gekenmerk deur klein grondbesit en tradisionele boerdery-metodes. Verder maak die boere baie min gebruik van gehuurde arbeid omdat die huisgesin die werk in die boerdery behartig. Daarby word roofbou in 'n groot mate toegepas sodat die opbrengs nie net relatief laag is volgens Westerse standaard nie, maar ook in verhouding tot die hoeveelheid energie wat daaraan bestee word.[4]

In omtrent al die lande, veral in Afrika, is die vrou die landbouer. Sodra 'n bepaalde produk, soos bv. mielies vir die mark gekweek word, gebeur dit dat die mans ook begin belangstel in die boerdery weens die ekonomiese voordele, soos bv. in Zambië.[5]

Die markgeoriënteerde ekonomiese ontwikkeling is hoofsaaklik gebaseer op die verbouing van produkte vir die buitelandse mark. In baie gevalle egter, is die uitvoer gebaseer op slegs een of twee produkte en is die buitelandse verdienste baie gevoelig vir bewegings van die pryse van hierdie produkte op wêreldmarkte. So bv. verkry Colombië 95% van sy

uitvoerverdienste van koffie, petroleum en piesangs; 88% van Ceylon s'n van tee, rubber en klapperprodukte. Meer as twintig onderontwikkelde lande steun op slegs een produk vir meer as 50% van hul uitvoerverdienste: Bv. Ecuador 52% ten opsigte van piesangs; Cuba 59% uit suiker; Ghana 62% uit kakao; Egipte 72% uit katoen en Burma 72% uit rys.[6]

Selfs lande soos Zambië wat groot hoeveelhede van 'n bepaalde mineraal uitvoer, word ernstig getref deur die wisselvalligheid van pryse op die wêreldmarkte. In die algemeen is die prysbewegings van grondstowwe teenoor die van vervaardigde goedere ten nadele van die ontwikkelende lande omdat die pryse van laasgenoemde goedere, juis dit wat dié lande moet invoer, gewoonlik net styg.

Behalwe vir die enkele gelukkige lande onder die groep wat olie produseer, is die ontwikkelende lande eintlik arm aan minerale tot op hierdie tydstip. Steenkool wat 'n relatief maklik ontginbare mineraal is, kom in baie min van hierdie lande voor. Koper kom in 'n hele aantal lande voor asook fosfaat, maar behalwe vir die olieproduserende lande lyk dit nie of enige van die ontwikkelende lande 'n sterk ekonomie op hul mineralebronne kan bou nie.

Inkomste

Alhoewel die Weste slegs 20% van die wêreld se bevolking van 3,000 miljoen huisves, besit dit 90% van die wêreld se inkomste, 90% van die wêreld se goudreserwes en 95% van die kennis. Verder ook 70% van die vleisvoorraad en 80% van die proteïn.

Ongelooflik soos dit mag klink, was die jaarlikse toename in die inkomste van die Weste in 1970 gelyk aan die gesamentlike inkomste van al die lande in Suid-Amerika en tweekeer soveel soos die totale inkomste van die lande van Afrika of die inkomste van Indië.[7]

In teenstelling word algemeen aanvaar dat ongeveer 20% van die bevolking van die ontwikkelende lande ondervoed is as gevolg van 'n te lae inname van kalorieë. Ongeveer 33% kry nie voldoende proteïne nie en meer as 50% ly aan algemene wanvoeding omdat die gehalte van die voedsel nie voldoen aan die fisiese behoeftes ten opsigte van voedingstowwe, vitamiene en minerale nie. Op grond hiervan kan aanvaar word dat ongeveer 580 miljoen mense in die ontwikkelende wêreld honger ly en ongeveer 1,400 miljoen bedreig word deur wanvoeding.[8]

Ongelukkig blyk dit ook dat die gaping tussen die inkomste van die ontwikkelde en ontwikkelende lande steeds groter word: "Towards the end of the eighteenth century, average per capita income in the poorest and the rich countries were in the ratio of 1:8, using Southern India and the United States as examples. In 1966 the ratio between the 60 dollars per year in some tropical African countries and the 3,600 dollars in the United States was 1:60. If existing trends were to continue, before the end of the century the ratio would be 1 to over 100."[9]

Die posisie in Pakistan gee min of meer dieselfde beeld: 'n Groeikoers van 6% of selfs hoër in hierdie land tot aan die einde van die eeu sal nog steeds 1,500 miljoen mense met 'n gemiddelde inkomste van slegs $200 per jaar

laat. Verder beweer sommige skrywers dat, gebaseer op die huidige ekonomiese verhoudinge tussen die ontwikkelde en ontwikkelende lande dat die huidige $1 800 en $150 per capita inkomste per jaar, sal die syfers vir die jaar 2000 $5 775 en $325 vir die ontwikkelde en die ontwikkelende lande respektiewelik wees.[10]

Elkan lê ook klem op die ongelooflike lae inkomste in sekere lande. Volgens hom was daar in 1970 38 lande met 'n bevolking van meer as 'n miljoen elk waarvan die bruto binnelandse produk slegs R150 of minder was, en in 'n verdere 43 lande was dit tussen R150 - R500 per jaar. Van die lande onder die ontwikkelende lande met die grootste bevolkings soos Indië en Pakistan was die per capita inkomste in 1970 slegs R100.[11] Gemiddeldes is egter slegs 'n baie benaderende aanduiding, in hierdie geval van die inkomste per persoon, maar 'n gemiddeld van R100 dui onteenseglik daarop dat daar 'n groot getal persone is wat heelwat minder as R100 per jaar kry. Dit moet dan ook in gedagte gehou word dat ook in hierdie lande daar groot verskille in inkomste tussen die rykes en die armes is en dat ook in hierdie lande die gaping tussen die inkomste van die rykes en die armes ook vergroot. Gewoonlik word Kuwait as voorbeeld geneem om die teenstelling tussen ryk en arm te beklemtoon.

Vervoer

In groot gebiede van die ontwikkelende wêreld is die mens self sy beste en mees algemene vervoermiddel. Vroue dra nie net water en hout aan nie, maar ook groot dragte produkte en goedere. Beeste en donkies word alhoemeer gebruik om karre en ploeë te trek. Oor die algemeen word die vervoer vinnig gemeganiseer. Die motor en die vragmotor is 'n baie beweeglike en doeltreffende vervoermiddel en ook baie gewild. Motorverkeer het dan ook sedert die vyftiger jare vinnig toegeneem in die stede en digbevolkte gedeeltes. Baie van die bewoners sien daarin nie net 'n vervoermiddel nie, maar ook 'n statussimbool. Dit het ook gou geblyk dat motorverkeer 'n groot bron van inkomste kan wees en in die stede het huurmotors en passasiersbusse 'n alledaagse verskynsel geword. Oor die algemeen laat die paaie veel te wense oor met die gevolg dat snelhede redelik laag is, en die onderhoudskoste baie hoog.

Die vervoer van goedere, veral landbouprodukte en minerale oor groot afstande het 'n ernstige en byna onoorkomelike probleem geblyk te wees tot die koms van die spoorweë. Spoorverkeer het dan ook dramaties toegeneem in die ontwikkelende lande, nie net ten opsigte van goedere verkeer nie, maar ook ten opsigte van passasiers. So bv. was die jongste groot spoorlyn wat in hierdie lande gebou was die onlangs voltooide Tanzam-spoorlyn wat Zambië met die Indiese Oseaan verbind.

Verstedeliking

Mense beweeg van een gebied na 'n ander wanneer hulle vermoed dat hul

ekonomies beter daaraan toe sal wees in die gebied. Persone vanuit die stede dra die „lekker" van die dorp of stad uit na die platteland en die wat dit verneem het 'n begeerte om ook in die oorvloed van die stad te deel. In die stad is nie net werkgeleenthede nie, maar ook die ander fasiliteite soos skole, professionele dienste en ontspanning en vermaak wat nie op die platteland bekombaar is nie of moontlik wel, maar teen groot koste.

Die nuwe intrekker in die dorp of stad sluit hom waar enigsins moontlik, aan by familie of kennisse wat reeds daar woon. Alhoewel hy baie onseker is van homself is hy dan nietemin weer soos in die platteland, een van 'n groep wat hom help om werk te vind en om te sien na sy welsyn waar nodig. Dit is dan ook kenmerkend dat daar 'n sterk neiging ontwikkel dat mense uit 'n bepaalde gebied min of meer in dieselfde omgewing in die stad gaan woon. Hierdie verskynsel is des te sterker indien daar redelike sterk etniese verskille binne 'n bepaalde land aangetref word. Hoe langer 'n persoon se verblyf in die stad, hoe meer is hy egter ook geneig om 'n meer globale uitkyk op die lewe te ontwikkel en weg te beweeg van die eng tradisionele beskouinge. Nog 'n interessante ontwikkeling word deur Foster aangehaal uit 'n proefskrif van Kemper: "Fathers are more apt to be affectionate towards their children, open and understanding to their counsel, eager to labour for their children's betterment, and concerned with being a friend rather than a symbol of ultimate authority — that is, they tend to reject the very behaviour which is associated with rural machismo."[12]

Verstedeliking in die ontwikkelende wêreld geskied teen 'n asemrowende spoed. Vyf-en-twintig jaar gelede was daar slegs 16 stede met een miljoen of meer inwoners. Vandag is daar 60 sulke stede en oor nog 'n vyf-en-twintig jaar sal daar meer as 200 sulke stede wees. Daar word bereken dat die stede teen ongeveer 5% per jaar groei. Die helfte van hierdie groei is die gevolg van natuurlike aanwas en die res deur migrasie vanaf die platteland. In Latyns-Amerika is die verstedeliking reeds ongeveer 60% maar in Afrika en Asia slegs 25%. Teen die einde van die eeu sal die stedelike bevolking in Latyns-Amerika toeneem tot 75% van die bevolking, terwyl in Asia en Afrika een uit elke drie persone in dorpe en stede sal woon. Dit beteken dat oor die volgende kwart eeu sal die stedelike gebiede behalwe die huidige bevolking van 700 miljoen nog 'n bykomende 1000 miljoen inwoners moet huisves.[13] Die geweldige groei van die stedelike bevolking bring vanselfsprekend geweldige ekonomiese en sosiale komplikasies mee. Eerstens is daar die behuisingsprobleem wat veral in die ontwikkelende lande baie groter afmetings aanneem as in die ontwikkelde lande. Die gebrek aan behuising veroorsaak dan ook 'n verandering in die sosiale patroon van veral die migrerende bevolking wat nou in groter armoede en in beknopter ruimtes moet woon en dikwels onder onhigiëniese toestande. Die stede en dorpe het dan ook groot krotbuurtes wat nie net 'n goeie teelaarde vir siektes is nie, maar ook vir misdaad.

Die volgende beskrywing in die Financial Mail van 24 September 1976 is sekerlik van toepassing op baie dorpe en stede in dié lande: „It's not a pretty sight. An air of dusty poverty hangs over it. Most buildings are single-storied relics of a distant colonial past."

Bevolking

80% van die wêreldbevolking is arm en hierdie persentasie neem steeds toe weens die hoër koers waarteen die bevolking in die ontwikkelende lande toeneem in vergelyking met die ontwikkelde lande, nl. 2,8% teenoor 0,9% respektiewelik. Die bevolking van Indië neem bv. jaarliks toe met meer as 12 miljoen en dié van Sjina met meer as 14 miljoen. Die gevolge van die geweldige vinnige toename in bevolkingsgetalle word moontlik die beste weerspieël deur die volgende: Asië het in 1930 200,000 ton graanvoedsel uitgevoer, maar in 1960 nie minder nie as 16 miljoen ton ingevoer en in 1966 dertig miljoen ton. Die graanproduksie van Latyns-Amerika het met 16% afgeneem terwyl Afrika wat voor die tweede wêreldoorlog klein hoeveelhede voedsel kon uitvoer in 1970 ongeveer 2 miljoen ton ingevoer het.[14]

Volgens Die Transvaler van 29 September 1976 sou Prof. J.L. Sadie tydens 'n kongres te Tygerberg aangedui het dat altesame 72% van die wêreld-bevolking in die minder ontwikkelde lande woon maar minder as 18 persent van die wêreld se produksie van goedere en dienste produseer.

Verder neem hul bevolkingsgetalle driekeer vinniger toe as die van ontwikkelde lande. Die vinnige toename in bevolking en die lae produksie bring mee dat die wanvoeding en honger in ontwikkelende lande steeds groter word.

Slot

Ons het deurgaans gemerk dat die ontwikkelende lande inderdaad nie net arm is nie maar ook honger ly. Hierdie bevolkingsontploffing moet moontlik aan die voet van die mediese wetenskap in die algemeen en aan die gesondheidsdienste in die besonder gelê word. Die vraag ontstaan of laasgenoemde nie sy hand in hierdie opsig oorspeel het nie, soos uit die volgende aanhaling blyk: „I just wasn't psychologically attuned to the problem I would have to face. Back in the United States a doctor never has to ask himself: 'Why try to keep this baby alive?' He concentrates all his knowledge and willpower on the need to save a child and give him a chance for normal life. But here, in India, maybe two or three hundred million people will never experience a single day free of hunger or sickness in their entire lives."[15] Die vraag wat ontstaan is dus: Mag die mediese wetenskap en die gesondheidsdienste voortgaan om mense in die haglike sosiale en ekonomiese toestande in die ontwikkelende wêreld aan die lewe te hou? In soverre dit die toekoms van die wêreld as 'n geheel betref gaan dit nie om meer mense nie, maar om minder mense in verhouding tot die beskikbare middele en die kongres moet dalk besin oor die rol wat gesondheidsdienste in hierdie verband behoort te vervul.

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