

EXCELLENCE IN HEALTH CARE IN THE NEXT MILLENNIUM: SOUTH AFRICAN REALITIES AND CHALLENGES



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ABSTRACT

This paper was delivered at an international conference as the closing address with the topic "Excellence in health care in the next millennium." Due to the length of the presentation, it is divided into two articles. Some selected South African realities and challenges impacting on our quest towards the achievement of excellence in health care in the next millennium, are presented in the first article, followed by recommendations and strategies in the second article. South Africa is presently confronted with many dynamic changes and transformation, of which the pace and intensity is increasing on a daily basis. There are many internal and external factors impacting on the transformation of health services and the quest for excellence. These include contemporary human resource issues in South African health services, legislation/national policy impacting on the delivery of health services, financial issues, the existing health indicators, high-technology medical service, quality improvement and research. These factors are presented as realities and challenges, based on a literature review and a content analysis of the proposed national health system and discussion documents.

OPSOMMING

Hierdie referaat was by 'n internasionale kongres as die afsluitingsreferaat gelewer met die titel: "Excellence in health care in the next millennium." Weens die lengte van die referaat, word dit in twee artikels verdeel. Geselekteerde Suid-Afrikaanse realiteite en uitdagings wat 'n impak op ons strewe na voortreflike gesondheidsdienslewering in die volgende tien dekades kan hê, word in hierdie eerste artikel aangebied. Die strategieë en aanbevelings word in die opvolgartikel weergegee. Suid-Afrika word tans gekonfronteer met verskeie dinamiese veranderinge en omvorming, waarvan die pas en intensiteit op 'n daaglikse basis toeneem. Daar is verskeie interne en eksterne faktore wat op die omvorming van gesondheidsdienste 'n impak het in ons strewe na voortreflike gesondheidsdienslewering. Dit sluit huidige menslike hulpbronne kwessies in Suid-Afrikaanse gesondheidsdienste in, wetgewing/nasionale beleid wat 'n impak op gesondheidsdienste het, finansiële kwessies, die bestaande gesondheidsaanwysers, hoë tegnologie mediese dienste, gehalteverbetering en navorsing. Hierdie faktore word as realiteite en uitdagings aangebied, gebaseer op 'n literatuurverkenning en 'n inhoudsontleding van die voorgestelde nasionale gesondheidsorgstelsel en besprekingsdokumente.

INTRODUCTION

This article is based on the closing address that was delivered at the international conference: "Excellence in health care in the next millennium". The topic in itself, is quite a challenge! This is an overview article, based on a literature analysis, including the latest national reports, discussion documents and White Paper available on health care delivery in South Africa.

Excellence in health care in the next millennium is a most desirable vision to be achieved by all health providers. A person's health is one of the most important assets - therefore health care delivery should be of the highest quality. Excellence in health care implies that certain features or characteristics related to quality have been determined and are being adhered to. Quality is defined as having several dimensions, viz. appropriateness, equity, accessibility, effectiveness, acceptability and efficiency. Appropriateness is the key issue and refers to the service or interventions which the individual, group or community really needs - the right decision and care at the right time. Quality implies a fair

share for all the members of society, free from any form of discrimination (equity). Accessibility means that services are not compromised by undue restrictions in time or distance. Effectiveness is achieving the intended benefit for the individual, family or community. Services are acceptable when they are provided to satisfy the reasonable expectations of the patient, community, provider and funder. Acceptability should also be viewed within the legal, professional-ethical and cultural context of the various stakeholders and also refers to safety with applicable risk management, adequate professional knowledge and competency, as well as technologically advanced services in accordance with the developments and expectations of providers, funders and recipients of health care. Efficiency in health care delivery means that resources are not wasted on one service or patient to the detriment of another (Shaw, 1993:11). The principles of equity, accessibility, appropriateness and efficiency are emphasised in the White Paper (1997:14-15) as part of the goals and objectives of the new health system.

There are different stakeholders in health care delivery, viz. the patient or health care consumer, the health care funder or purchaser, the health care service provider at community, district, provincial and national levels by the state and private sector, the health professionals and the health service managers, not forgetting the support services. This implies that health service delivery is a very complex business with different needs, desires and expectations by each roleplayer impacting on excellence in health care in the next millennium. The purpose of this paper is to explore and describe selected realities and challenges we are confronted with in health service delivery in South Africa.

REALITIES AND CHALLENGES

The realities and challenges impacting on excellence in health care need to be analysed. Contemporary human resource issues in South African health care services, legislation and national policy framework, health indicators, high-technology, quality improvement and research, were identified as significant factors and are briefly analysed.

Contemporary human resource issues in South African health care services

According to the 1995 mid-year population projections, South Africa has a population of approximately 44 million people. The professional health manpower profile reveals a significant shortage, maldistribution (see table one) and over specialisation of medical practitioners. There are approximately 26 000 registered medical practitioners, with a doctor:population ratio of 6,5:10 000 and dominated by white males. More than 85% of the medical practitioners are specialists who mainly practice in urban areas. This leads to a shortage of doctors available to practise in primary health care services. The number of doctors available in South Africa compares favourably with South American middleincome countries, while middle-income countries in Europe have twice to five times more medical practitioners available. Approximately 200-250 doctors have left the country over the past few years (Department of Health, 1994:13-15).

There are approximately 9 600 pharmacists in South Africa with the pharmacist:population ratio of 2,3:10 000. It further appears that almost 85% of the pharmacists are in private practice, mainly in urban areas, with a resultant shortage of pharmacists in the public service and primary health care services (Department of Health, 1994:22-23).

Nurses and midwives comprise almost 60% of the health professionals in South Africa, with close to 180 000 of whom almost half are registered nurses and midwives. The registered nurse:population ratio is 43:10 000 which compares favourably with the recommended 1:500 of the World Health Organization. Urban distribution is once again more favourable than that of rural areas. The nurse is, however, more available in the underserved areas than the doctor or pharmacist. A significant number of nurses (approximately one third) work in private sector (Department of Health, 1994:18-21). The availability and distribution of the medical practitioner, pharmacist and nurse are presented in table one.

The maldistribution of health practitioners, especially with regard to doctors and pharmacists, results in the fact that the nursing practitioner is the most available as the front-line provider of health care. In the absence of the doctor or pharmacist, the registered nurse/midwife has a professional-ethical obligation to act in the interest of the patient. This implies that the nurse/midwife must obtain the necessary

Table 1: The availability and provincial distribution of the doctor, pharmacist and nurse in South Africa per 10,000 population

Province	Doctors	Pharmacists	Nurses
Gauteng	9,3	5,8	40,2
Eastern Cape	2,3	1,2	29,2
Kwazulu/Natal	4,5	1,7	41,2
Mpumalanga	2,1	1,2	22,3
Northern Cape	7,4	1,5	28,3
Northern	1,0	0,5	30,6
North West	1,3	1,3	21,2
Free State	1,5	1,5	34,4
Western Cape	4,3	4,3	47,6

legal empowerment to act beyond the traditional scope of practice. The problem of grey area practice, especially in the underserved areas, needs urgent attention.

We also need to ask serious questions about nurses: is the nurse in this country value for money, doing what is expected of her/him, well positioned as the front-line health worker in primary health care services? Is the nurse of today a trustworthy, credible and productive member of the health team and therefore irreplaceable by technicians and other unregulated workers?

The role of the pharmacist, especially in terms of the proposed changes in legislation, has been debated the past few years. Adopting a business-as-usual attitude in the rapidly changing pharmaceutical industry would be to risk self-destruction due to the slow-downs in growth, government intervention, price deflation and industry consolidation (Rowland, 1997:5). The proposed new Pharmacy Bill for South Africa allows for deregulation of pharmacy ownership. This should have a major impact both on access to pharmacists as primary health-care workers and on the cost of pharmaceuticals. Private hospitals should also be able to apply for ownership of pharmacies, enabling them for the first time to exercise control over a component that comprises more than 40% of their accounts. The amendments to the Medicine Act propose to introduce compulsory generic substitution and parallel imports. This has generated controversy and some heated media debates. Multi-national drug companies have openly threatened to withdraw from the country if the bill goes through.

The racial and gender composition of the different health professions will require drastic changes to meet the proposed legislative requirements in terms of affirmative action. Group practising among professions also needs urgent attention - there has been lots of talking and discussions over the past ten years with no deregulation in this regard yet. The time has come for some creative initiatives to facilitate group practice by medical practitioners, nurses/midwives, pharmacists and supplementary health professionals, in the interest of the health care consumer. The utilisation of an

assistant in other professions is gaining increasing momentum, for example a pharmaceutical assistant, a medical assistant (returned exiles at this stage), etc. This could cause serious inter-professional conflict, labour relations related expectations with resultant increased labour unrest, especially amongst the nurses who usually end up being the supervisor of additional categories.

The utilisation of Cuban doctors to alleviate the shortage of South African doctors in rural and traditionally underserved areas, has its own problems of which the communication barrier and poor productivity is most significant. Most of these doctors are specialists and they are placed in primary health care settings. Reports on the performances and abilities of the approximately 280 Cuban doctors now practising in the underserved areas have been many and varied - some good and some bad; this does not appear to be the solution.

The role of the traditional healer and birth attendants is being analysed and whether they should be formally acknowledged and regulated (White Paper, 1997:57). This could pose different challenges in the composition of the health team, especially at the district and community levels of health service delivery. It is recommended in the White Paper that the regulation and control of traditional healers at the provincial level should be investigated as a mechanism for legal empowerment.

Autonomous regulation of the different health professionals is being debated and the need for one umbrella regulatory body is under discussion. This could have several advantages, but also some disadvantages. Will there be one body to regulate all health professionals in the future and how will it work - or will professional regulation of health professionals in this country soon be something of the past? These are serious questions but need to be answered within the context of excellence in health care in the next millennium. There also appears to be duplication in terms of the regulatory functions of the health professional councils and other bodies in future.

The general regulation of education in the country will also be done in terms of the South African Qualifications Authority (SAQA), which could result in a further duplication of work in this regard. Although the professional councils are presently responsible for the approval/accreditation of educational programmes and institutions involved in the education and training of health professionals, this will also be done by SAQA. The Department of Health also seems to become very involved in the regulation of education and training of health professionals/workers, as stipulated in the White Paper (1997:60-62) and based on various discussions at the Department of Health, where the Department wants to control the selection of training of all professionals, curriculum review, community-based education, integration of educational experiences for different professionals, continuing education, as well as the recertification of professionals and the accreditation of educational institutions. This could once again lead to serious overlapping of functions between the Department of Health, the professional Councils within health care and SAQA.

The Department of Health is also introducing a system of vocational training of medical practitioners, implying a period of compulsory practice in a non-tertiary institution on completion of their medical training (White Paper, 1997:58). The principle of obligatory service requirements is envisaged for all health professionals - they have to work in a non-tertiary underserved area prior to entering health practice (White Paper, 1997:59). This principle has not been

thoroughly discussed by the various professions and is seen as unilateral decision-making.

The paradigm shift towards primary health, requires dramatic transformation in the education and training of health professionals, both in content and in practice. The nature of management also needs to change to make provision for participative, decentralised, change and outcome-based management (White Paper, 1997:66-68). A serious lack of a caring ethos has been identified by the various committees and is addressed in the White Paper (1997:64-65) as part of the transformation process.

Legislative and policy framework

There are certain legislative and policy framework realities to guide the delivery of health services in South Africa that will impact on the quest towards excellence in health care in the next millennium.

Reconstruction and Development Programme (RDP)

The government of National Unity has developed a framework for socio-economic development in its Reconstruction and Development Programme (RDP), which also sets the framework for the improvement of the health of the nation. The second major thrust of the RDP is the building of the economy. Poverty is widely recognised as a major determinant of the health status of individuals, groups and communities, and gains in health will only be possible if the RDP's attack on poverty through economic development succeeds. The third component of the RDP is the development of human resources, equipping individuals, groups and communities to care for themselves. Finally, the RDP's focus on meeting basic needs, and within that focus, the development of housing and services such as water and sanitation, the environment, nutrition and health care represents its most direct attack on ill health. It follows that trends in health status during and following the implementation period of the RDP is one of the most significant indicators of the success of the whole programme (Department of Health, 1995b:2-3). The challenge is to adequately implement the principles embodied in the RDP.

Transformation of the health system in South Africa

The White Paper (1997) on the transformation of the health system in South Africa, presents to South Africa a set of policy objectives and principles upon which the unified National Health System of South Africa will be based. It also presents various implementation strategies designed to meet the basic needs of all our people, given the limited resources available. The proposed new National Health System is based on a common vision which reflects the principles of the RDP (White Paper, 1997:12) and relating to the following:

- The health sector must play its part in promoting equity by developing one unified health system.
- The system will focus on districts as the major locus of implementation and will emphasise the primary health care approach.
- Local authorities, Non Governmental Organisations (NGOs) and the private sector should unite with the public sector in the promotion of common goals.
- Central, provincial and district levels will play distinct and complementary roles.
- An integrated package of essential Primary Health Care (PHC) services will be available to the entire population.

The challenge facing the South African Health System is therefore to design a comprehensive programme to redress social and economic injustices to ensure that emphasis is placed on health and not just on medical care. Health care service delivery is governed is this country by the Health Act (new Act yet to be promulgated), with a National Department of Health and nine provincial legislative authorities. The third tier of health service delivery will be the District services, functioning in an autonomous manner but under the auspices of the provincial government. Community empowerment is a major priority to achieve excellence in health by the year 2000. The different levels of health care service delivery (national, provincial and district levels) are delineated in the White Paper (1997:17-31), together with the different objectives, functions and implementation strategies. The existing local authority services will be transformed into the new District Health System. This in itself poses tremendous challenges, of which the rationalisation of services and health personnel are most important. Health care reform is global in its spread and entails more than finetuning of health systems - it is integral to larger social and political transformations. Health care systems cannot avoid reform but neither can they be reformed independently of other societal movements. The Department of Health is commended, however, for the national policies and blueprints developed within a short time - the challenge is to implement all these policies now.

Health care services and facilities

There are two main health care facilities required for rendering health services: Primary health care clinics and hospitals. Hospitals are divided into Academic Health Care Centres, provincial or referral hospitals, and community hospitals. With the new political dispensation and the country being divided into nine provinces, dynamic restructuring of hospitals is required to make provision for provincial equity which may lead to the rationalisation and amalgamation of certain services, as well as the introduction of new services and hospitals in other provinces. But do we have adequate health care facilities? This question is briefly analysed in terms of available clinics and hospital beds.

a) Clinics

If the World Health Organization's norm of 10 000 people per clinic is accepted, South Africa has a very serious problem and a significant backlog that needs to be addressed - we require an additional approximately 2000 clinics by the year 2000, implying that at least 230-315 clinics need to be built per year (Hospital and Nursing Yearbook, 1996:69). With the projected population growth in the next millennium, the expansion of clinics will be inevitable.

b) Hospitals and beds

As far as hospitals are concerned, we have a total of 791 hospitals, with 168 565 beds (Hospital and Nursing Yearbook, 1995/6: 117). This implies a ratio of 4 beds per 1000 population country-wide. Gauteng has the highest ratio of 6,0 followed by Western Cape with a ratio of 5,4 beds per 1000 population, and Mpumalanga with the lowest ratio of 2,0 beds per 1000 population. With the exception of Mpumalanga, there is overall an adequate number of hospital beds in the provinces (4:1000 in urban areas and 2:1000 in rural areas). However, there is an imbalance between the levels of care in provinces in which there is more than one academic teaching/health centre. The shortage of primary level facilities (community hospitals) in most provinces is of concern. This disparity between levels in certain prov-

inces has placed an unacceptable demand and burden on tertiary hospitals, as they are forced to perform functions that should be carried out at lower levels.

It is essential that the total number of beds in all the provinces be maintained, as rapid population growth will reduce the number of beds available per population. In all provinces the present ratios are at the lower end of the recommended figures, while Mpumalanga falls well below this. Both Gauteng and Western Cape Provinces have too many tertiary and academic level beds and action may be necessary to reverse these ratios - it will be necessary to rationalise the number of academic hospitals in these two provinces. Hospitals in the public services are in a financial and survival crisis which makes transition even more difficult.

Whereas it is essential that the number of hospital beds is maintained, the primary level of care must be emphasised. Analyses at the regional and sub-regional levels should be directed towards maximal utilisation of existing resources. A clinic building programme needs to take into account existing resources and shortages and plan appropriately for future needs. With several announcements by the President of the country and Minister of Health, viz. free maternal and child care, free primary health care, the services are flooded and services cannot cope with the demands.

Integration of public and private sectors

The South African health care delivery system is a clearly divided, dual system. The private health industry plays a significant role in South Africa, with a total of 215 hospitals and almost 26 000 beds, providing health care to approximately 20% of the population, but utilising almost 50% of total expenditure (Van der Merwe, 1996:17). There are many reasons for this distortion, of which the State tender system for purchasing pharmaceuticals most significantly impacts on these financial figures. The challenge is to integrate the public and private sectors in a manner which makes optimal use of all available health care resources. The public and private mix of health care can promote equity in service provision. The development of an integrated health information system is necessary to avoid duplication of services and foster the optimal utilisation of available resources. The regulation of ownership and the licensing of private hospitals will be intensified to foster equity in this regard (White Paper, 1997:52-53).

National drug policy for South Africa

The National Drug Policy for South Africa has recently been developed and published, with certain health, economic and national development objectives. It covers a wide range of activities which contribute to the effective production, supply, storage, distribution and use of medicines. Its successful implementation depends on a commitment to its principles by all roleplayers and stakeholders. This commitment must go beyond lip service to include active participation in the process of initiation, review and modification to ensure that the people of South Africa receive the drugs they need at a cost that they and the system as a whole can afford. The aims of the National Drug Policy (Department of Health, 1996) focus on accessibility, safety and cost-effectiveness, empowering the pharmacist to substitute a prescribed drug in accordance with the National Drug List. This leads to the disempowerment of the medical practitioner and resultant ethical problems and conflict between these two professions.

National Education Policy

Although not yet a commonplace in the thinking of a majority of South Africans, a major initiative called the National Qualifications Framework for South Africa has been established to address some of the urgent reforms needed in South African education and training, in the hope of finding a system which would take a holistic view of the personal, social and economic needs of our rapidly developing society, and then to propose ways forward to address all these concerns on a broad and integrated front. This will have implications for education at large, relating to competence, capabilities, standards, units, qualifications, knowledge, assessment and learning outcomes (Human Sciences Research Council, 1995). The implications for education of health professionals are significant and all the health professional councils are presently transforming the education system to meet the requirements of the National Qualification Framework and the South African Qualifications Authority.

In addition to this, the tertiary education system of the country will be transformed, based on the recommendations of the National Commission for Higher Education (NCHE, 1996), as outlined in their report. A major effort towards rationalisation of tertiary education institutions, centralised regulation in terms of funding, the development of curricula, selection criteria, and many more, will impact on the education of health professionals in South Africa. It is also recommended that nursing colleges be integrated into universities or technikons to finally become part and parcel of the National Education System as opposed to the current system under the auspices of the Provincial Health Departments.

Other legislation

There are more acts/legislation impacting on excellence and health care delivery in the near future. Examples are the Labour Relations Act aiming at the democratisation of the working environment, Termination of Pregnancy and the envisaged euthanasia legislation with resultant ethical problems, Equity Employment aiming at the regulation of affirmative action and legislation related to Skills Development, to mention only a few. All the new legislation aims at addressing the inequalities of the past and are rooted in the principles of justice and equality. The challenge lies in the effective implementation of the new legislation, with appropriate monitoring. It does appear, however, as if the implementation of new legislation will be very labour intensive, especially in respect to the monitoring thereof. The Equity Employment legislation will require a very labour intensive monitoring mechanisms within the organisations as well as by the Department of Labour to see whether affirmative action is in line with the legislation.

Finances

Health care systems are universally faced with the problem of limited resources. This is especially true in South Africa which is characterised by fragmented and unequal resource allocation. The issue, therefore, is not the total amount spent on health care but rather the benefits obtained from this expenditure versus other developmental expenditures. Approximately R30 billion was spent on health in South Africa in 1992/3. This is equivalent to 8,5% of the gross domestic/national product (GNP), or one-twelfth of the economy. South Africa is thus devoting substantially more resources to the health sector than most developing countries, yet has poor health status relative to these countries (Department of Health, 1996:1). The increased expenditure in health care can be related to the following (Walters & Bunn, 1996:56):

- changes in population and health needs
- overall salary and price inflation
- salary and price inflation in health care in excess of general inflation
- changes in service intensity (inputs/unit health care).

Approximately 38,7% of total health care expenditure in 1992/3 was funded from public service resources, while private financing sources accounted for 60,8%. One of the most pressing problems facing public health services is the relatively heavy concentration of resources within the hospital sector and consequently under-resourcing of primary health care services. Approximately 76% of the total public sector health expenditure was attributable to acute hospitals in 1992/3, with academic and other tertiary hospitals alone accounting for 44%. In contrast, only 11% was spent on non-hospital primary care services (Department of Health, 1996:2-3).

Over the past decade, expenditure in the private sector, particularly that by medical schemes, has increased more rapidly than the rate of inflation, with expenditure on medicines and private hospitals increasing rapidly during this period. Addressing these problems effectively will require a significant level of restructuring of both sectors and of their interactions. The following financial principles are applicable (White Paper, 1997:40-53):

- Health care financing policies should promote equity of access to health services among all South Africans and the optimal utilisation of resources.
- The implementation strategies are aimed at universal access to a publicly funded Primary Health Care System, a clarification of the role of the District Health Authority with defined PHC packages, and public/private mix at district levels.
- Regulatory reform of the private health sector to reverse the deregulation of the private health insurance market.

In the private health care industry, many financial models are being implemented in an attempt to curtail costs, of which the principle of managed health care is significant - almost 20% of all patients admitted to private hospitals in South Africa are involved in managed health care. The principle of preferred provider organisations and related agreements with managed health care organisations, is also gaining momentum. Some managed health care organisations are also negotiating pre-paid agreements with hospitals, which is based on the health package principle; some capitation agreements between managed care organisations and funders have been seen. This results in major ethical problems and the private health industry is confronted with the adequate management of these ethical issues (Van der Merwe, 1996).

Significant health indicators

A fundamental objective of the Reconstruction and Development Programme (RDP) is to raise the standard of living through improved employment opportunities, in addition to adequate sanitation, water supply, energy sources and accommodation. This will clearly have a positive impact on health. At the same time the World Bank Development report (1993) advocate investing in health as a means of accelerating development. It is argued that good health increases the productivity of individuals and therefore the economic growth rate of countries.

The overall cause of death profile for South Africa reflects a combination of poverty related diseases, chronic diseases related to a Western lifestyle and the simultaneous effects of trauma. Based on the potential years of life lost (PYLL),

public health priorities include infant mortality, infectious diseases, violence, Tuberculosis, nutritional deficiencies as well as chronic respiratory conditions (Bradshaw et al, in Hospital and Nursing Yearbook 1996:70-71).

A breakdown analysis of the nine provinces reveal interesting differences. Gauteng, geographically the smallest province but the highest population, has the highest death rate figure due to violence together with Kwazulu-Natal. Tuberculosis accounts for 5,8-6,4% deaths, ischaemic heart diseases (11,8%), respiratory diseases (10%), cerebrovascular diseases (9,5-10,5%), intestinal infections (17,3-21%), nutritional deficiencies (2,2-4,3%) in the various provinces. A very high percentage (37,7%) of the causes of death are categorised as signs, symptoms and ill-defined groups, distorting the cause of death profile, especially in Mpumalanga and Northern Province (Bradshaw et al, 1996:70-71). It is clear that the statistical and disease information system in some of the provinces is not reliable and requires urgent attention.

Amongst the most vulnerable groups in South Africa are women and children. It is estimated that the Infant Mortality Rate (IMR), Under Five Mortality Rate (U5MR) and the Maternal Mortality Rate (MMR) are much higher than expected of a country with South Africa's level of income (Department of Health, 1995b:1).

The monthly surveillance bulletin (1996) reveals several positive tests on many diseases, of which HIV, Hepatitis A and B, and malaria are significant. The immunisation programme is still extensive - South Africa aims to declare the country polio-free by 1998. This requires sub-national polio-campaigns throughout the country with more than 7 million doses administered to children under the age of 5 years in 1995. The statistics on notifiable medical conditions during 1994/5 - cases and deaths - reveal a total of almost 80 000 notified tuberculosis cases in 1994 and more than 65 000 in 1995, with death rates up to 2 600 due to tuberculosis. The incidence of malaria, with deaths due to cerebral malaria, have increased significantly due to the good rains the last year or two. The notified cases regarding sexually transmitted diseases, food poisoning, measles, meningococcal infections, typhoid fever, hepatitis A & B are significant (Epidemiological comments, 1995:231).

The national health priorities and national strategy has been developed, focusing on nutrition, maternal, child and woman's health, HIV/AIDS and sexually transmitted diseases, environmental health, mental health and substance abuse, oral health and occupational health. The year 2000 health goals, objectives and indicators for South Africa have also been determined and strategies in this regard are being employed (White Paper, 1997). The challenge is to keep the strategies focused and sustainable, with applicable empowerment of individuals, groups, communities and organisations.

High-technology medical services

Health care finds its roots in science and much of its growth in technology. The challenge is to use both well for the benefit of all who are in need. The history of medical science and health care technology may be divided into three periods. These are the early period of slow accumulation of knowledge with the beginning of modern science up to 1700, the relatively rapid accumulation of knowledge which occurred primarily during the 1800-1900's, and the explosion of knowledge of the 20th century (modern era) resulting in the

biological revolution, the development of machine-based technologies and the appearance of extended longevity with the associated increase of chronic diseases. The modern era is characterised by an unpredicted growth in the development and utilisation of health technology. Medical devices consist of more than 6 000 generic entities made up from more than 750 000 brands, models and sizes produced by more than 10 000 manufacturers. In addition there are more than 100 000 different drugs based on more than 5 000 different active substances. It is widely accepted that technology offers may benefit and have greatly enhanced our ability to prevent, diagnose and treat disease. Unlike other technologies, health technologies are claimed to bring disproportionate escalation in costs. This perception has been the cause for serious concern to health care admini-strators, the medical insurance industry and the public at large (Walters & Bunn, in Hospital and Nursing Yearbook, 1996:56).

Efficacy (benefit) and safety should be the basic starting points for evaluating the overall utility of a health care technology. If a technology is not beneficial it should not be used. Neither the need for a technology nor its appropriate use can be established without good information regarding the efficacy and safety. Many technologies are not adequately assessed - only approximately 20% of all procedures used in medical practise are shown to be of benefit by means of controlled trials. South Africa is a net importer of technology and in many cases adopt technologies without appropriate assessment. South Africa, therefore, requires the capacity for the objective and appropriate evaluation and assessment, decisions selection, proper utilisation and effective support mechanisms within the new socio-economic environment (Walters & Bunn, in Hospital and Nursing Yearbook, 1996:56). We therefore need to implement the most applicable checks and balances to manage and control hightechnology in health care delivery. The White Paper (1997) makes provision for the cross-utilisation of high-technology based on geographical grids.

Quality assurance/improvement

Everybody wants high quality health care. As health care providers, we want to produce it; as patients we want to get it; and as health politicians and tax payers, we want to have value for money. But what is quality of health care and can it be measured? Are there effective ways to improve our quality? Will such improvement use up resources that might be better used to improve, say, access or equity? Inevitably, the funds available are limited. You cannot get everything you wish for but will have to make compromises. You will also have to heed the needs and wishes of others since many people contribute to quality: health professionals, health care managers, health politicians, patients and their relatives. Which qualitative aspect you emphasise depends on who you are, what you use the services for and the amount of money you have at your disposal.

A long list of desirable characteristics is bound to result in high costs and conflicting expectations. For instance, patients may prefer small local hospitals and health centres because they are close to the users; the managers may find them wasteful; and the health professionals may find them at variance with their wish to work in technologically advanced centres. The combination of characteristics selected for the definition of quality depends on who has the greatest prestige and power - and normally the physicians have. It is therefore not surprising that quality is defined by professional or scientific-technical standards. This definition has

guided most activities, the acceptable level of quality changing as medical know-how increases. In spite of its widespread use, the professional definition has increasingly become subject to criticism because it starts from the values and goals of one group only, neglecting those of the patients and managers, it stresses technology and can therefore increase costs and even maintain outdated treatment practices. To reduce the risk of professional dominance, the latest approach is to stress the patients' views on quality. This notion comes straight from business life where the customer is the king. While addressing some shortcomings, this approach in the context of modern health care has the problem of satisfying many customers who have different, often conflicting needs and desires. The purchaser of health care can also be seen as the customer with certain needs to be satisfied.

Quality of health care has many faces: an experiential face as viewed by patients, a professional and scientific face assessed by the health care providers, and economic and managerial face controlled by the health care managers. Will such an array of different, often conflicting expectations allow a meaningful definition of quality of health care, sustainable during the next millennium, and the effective means to improve it? The answer is "yes", provided we accept a simple definition of quality improvement: it is everybody's business and implies solving common problems together.

Quality is not an absolute but a relative notion. The current approach for equitable health care as we enter the 21st century combines the expectations of the consumers, providers and managers and stresses the following (Vuori, 1996: 65): the individual specific situation, the needs, desires and expectations of the health consumer, the costs, reasonable professional and scientific standards, and the right level of optimisation, as opposed to maximisation.

A formalised approach towards quality improvement on a national and organisation-based basis, was non-existent in South Africa up until three years ago. Although in theory, national, provincial and local health care authorities are responsible for the monitoring of quality in health care - this did not take place in a formalised manner. Although the White Paper (1997) refers to quality as part of the functions and responsibilities of the authorities at the different levels, the manner in which it should be implemented is not described. The principle of evidence-based medical practice is well known among medical practitioners but the principle of clinical auditing, indicating the collective results, poses many threats and resistance. A national accreditation system for hospitals has been developed and the Council for Health Service Accreditation of Southern Africa, an independent organisation, was established in November 1995 with a national initiative country wide. The formulation of national clinical guidelines in medical services, has been initiated by the Medical Association of South Africa a few years ago. There is still, however, duplication of initiatives and strategies being developed, for example there are several groups busy developing the standards for primary health care delivery in South Africa on a national basis. The Department of Health is presently busy developing its national policy on quality improvement.

Research

There are various national groups responsible for the coordination of health-based research, for example the South African Medical Research Council, the National Institute for Virology, the Human Research Science Council, etc. The rationalisation of health-related research institutions is necessary. A research strategy to realise the vision: "Building a healthy nation through research", together with the attainment of the mission statement: "To improve the health status and quality of life of the nation through excellence in research" is necessary. A national integrated health research strategy has been recommended by the South African Medical Research Council (1996:2) which requires the significant contribution of all stakeholders involved in health related research. This means an integrated national research effort belonging to all different stakeholders focusing on Essential National Health Research (ENHR). The South African Medical Research Council (1996:3), however, still differentiates between health and medical research - what is the difference? There are several research-based organisations co-ordinating different research activities related to health care in South Africa. The White Paper (1997:74-76) proposes an essential national health research strategy to organise and manage health-related research, based on the following principles: the research agenda should be developed to address the major health problems of the country and initiate a process that involves scientist decision-makers and representatives of the people as equal inclusive partners; health problems should be addressed by means of a full range of methodologies including epidemiology, social and behavioral research, clinical and biomedical research, health systems research and policy analysis, and priorities should be set by the stakeholders that are identified.

There is, once again, duplication with different organisations involved in the co-ordination of health research.

CONCLUSIONS

The realities and challenges focus mainly on the following:

There is a serious shortage and maldistribution of doctors and pharmacists in the country, with a maldistribution of registered nurses in South Africa.

 Primary health care services are disadvantaged by the maldistribution of health professionals and the over-spe-

cialisation of medical practitioners.

 The unavailability of the health professional in the underserved areas requires urgent deregulation to make provision for the most available practitioner to render health services in the interest of patient care.

 The utilisation of other health workers (contracted foreigners, medical assistants, traditional healers and birth attendants) leads to possible inter-professional role and labour related conflict.

 Autonomous regulation versus one single health professionals council leads towards inter-professional conflict in the health sector.

 There is an overlap of educational regulatory functions between the professional councils and the South African Qualifications Authority, with duplication by the Department of Health also.

 The principle of vocational and obligatory services within health care is causing labour-related conflict.

 The unified health system, with the emphasis on primary health care services, requires a paradigm shift in both the structure and process of health service delivery, as well as in the education and training of the health care professional and service providers.

- There is a severe shortage of primary health care clinics.
- The future regulation and licensing of the private health care industry poses many challenges and possible conflict.
- The introduction of the national drug policy leads to ethical problems between the medical practitioner and the pharmacist.
- There are provincial inequities in the availability of health services and resources.
- South African expenditure on health care is too high.
- The South African health care indicators are unacceptable.
- There are gross inequities related to high-technology medical services.
- There is no national formalised approach towards quality improvement by the state, but an autonomous external accreditation system is in place.
- There is duplication in the co-ordination of the essential national health research strategy.

The recommended strategies to address these realities and challenges are explored and described in the follow-up article.

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