

DEVELOPMENT IN ZIMBABWE



'Education is the hammer of skill'

The Role of the University

A Lecture Series at the University of Oslo
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F O R E W O R D

This is a compilation of a series of lectures given at the University of Oslo in June 1983 by staff members of the University of Zimbabwe. They participated in a delegation to the University of Oslo to explore the opportunities for building academic contacts between individuals and departments at the two Universities. Their visit constituted one important step in a long process of developing the content and format of a collaborative program between the University of Oslo and the University of Zimbabwe, the first "case" in the general efforts of the University of Oslo to establish new forms of academic cooperation with the third world.

It was felt natural at the time of this first extended visit from Zimbabwe that the 9 members of the delegation should provide information about the current activities and plans of their respective departments/faculties. The lectures were given over five consecutive days and were open to anyone interested. All contributors agreed to the proposal of having the lectures distributed afterwards, first and foremost at the University of Oslo as a contribution to the mutual exchange of information among staff and students.

Due to logistic and administrative reasons it took much longer than intended to get the various papers ready for presentation. In the period that has passed, many developments have taken place at the rapidly expanding University of Zimbabwe. The papers should therefore not be taken as reflecting the situation today in all aspects. Nevertheless, the broad lines of the basic philosophy of and challenges to the University of Zimbabwe are well reflected in the papers even if certain specific informations may be somewhat outdated.

Medicine and Development

Dr. R.A.B.Choto, Faculty of Medicine

The Faculty of Medicine opened its doors to student admission in 1963. It celebrated its 20th anniversary in March 1983. The Faculty is composed of the following Departments:

1. Medicine
2. Surgery
3. Obstetrics and Gynecology
4. Community Medicine
5. Paediatrics and Child Health
6. Psychiatry
7. Radiology
8. Anaesthesiology
9. Clinical Measurements (not in operation for lack of manpower)
10. Pharmacology
11. Pharmacy
12. Anatomy.
13. Physiology (to be established)
14. Nutrition (not in operation for lack of manpower)

There are subdepartments within some of the Departments.

Administration and Curricula

We have moved away University-wide from Professors automatically being the heads of their Departments. Each Department is now run by a Department Board Chairman, who must be a Zimbabwean, and may be lecturer or professor. The Board Chairmanship is appointed by the Vice-Chancellor with consent of the Council, the

controlling body of the University. The Chairmanship is for three years, subject to good conduct, and may be renewed.

The Board is comprised of the entire academic staff, a technicians' representative and two student representatives. The latter may be excluded from sensitive issues, such as exams, grades etc.

The medical curriculum is entered upon after the Senior High School Certificate, and poses the same requirements as English Medical Schools, i.e. three years of Basic Sciences: Bio-chemistry, Chemistry, Physiology (2nd year), Behavioural Sciences (3rd year) and Clinical Medicine (4th and 5th years).

At present a Faculty-wide curriculum review is under way. This is a result of the University curriculum review carried out by Professor Nhonoli of Tanzania for the Commonwealth Secretariat in 1981, at the request of the First Republic of Zimbabwe. It is part of an overall review of education in Zimbabwe, which is to enable the government to:

1. Assess the relevance of education curricula to Zimbabwe's needs;
2. Determine needs for skills production;
3. Develop localised and indigenous manpower;
4. Forecast appropriate education for Zimbabwe in the foreseeable future.

The review has been carried out with participation from the Ministry of Health, Manpower Development and Education. It has resulted in a radical departure from the classical British Curriculum, to more practically oriented education.

The emerging curriculum is important in the following key aspects:

1. The students will be trained not only in universal medicine, but also to be capable of recognising the medical problems particular to Zimbabwe.

2. The students will have direct contact with patients much earlier, in their second year.
3. The students will gain clinical experience in the country itself, not in the University's ivory towers.
4. After internship the qualified doctors will be posted for two training years in the country prior to proceeding with specialised training.

Let me go through these points and expand on them, to illustrate the goals they are expected to achieve.

Prior to our pioneering experiment in the Department of Paediatrics and Child Health (which I shall describe below), the health and medical problems unique to Zimbabwe were largely treated as an esoteric curiosity, the discussion of which was limited to theoretical publications. In short, the existence of such problems is not recognised in our present curriculum. This has been so because students only came into contact with the sick African (about 95% of the population) during his or her hospital training. This is well and good in culturally, customarily and ethnically homogeneous societies such as the European countries, where the concepts and language of health and disease, the national ethnic identity and religious tenets are truly national and the same.

But in our young nation you will find that there exists no such homogeneity or common denominator of understanding. The African lives in a milieu of two major tribes and languages (Shona and Ndebele), with subtypes within each group. In these societies the concepts of health and disease acquire wider connotations, which go far beyond the European germ theory of causative agents, irradiation and cure. In fact, health and disease exist within two separate conceptual frameworks, which are mutually exclusive and at best parallel. Health is not directly related to the freedom from disease. It is considered a spiritual state, the result of the benevolent protection accorded by Nyadenga Musikavanhu (God). Through the agency of His guardians the midzimu or Beautified One is assured of good health.

The achievement of good health is thus connected to religious rituals and tenets, rather than the classical cause and effect germ theory! Disease thus by definition acquires an altogether different meaning from that assigned to it by the present curriculum's conceptual framework. To the African majority of Zimbabwe's population disease thus has a specific character. This specificity is perceptual in nature:

The perception of disease must necessarily fall into two categories:

- A. Religio-ritual immorality
- B. Cause and effect

Within category A disease is perceived as withdrawal of spiritual protection, because of the unwholesome and immoral lifestyle of the victim. This is particularly true of internal medicine diseases that cannot be visualised directly. Ailments such as cancers, cardiac diseases, mental illness, meningitis with hallucinations, breach deliveries (or, more accurately, breach presentations), infertility, hypertension and organ failure are thus viewed in the light of unwholesome and immoral living standards and life styles. Bear in mind that no autopsies were or are generally undertaken except in coroner's cases. (This calls to mind the Pope's infallible order to Galen to dissect sheep because the internal structure was that of a human! Sanctified cannibalism?) Naturally, in this perspective treatment of these ailments requires spiritual and ritual propitiation and contrite atonement. Hence the bira - a festivity during which special beer and sacrificial meat are accompanied by appropriate ceremonies of chants, prayers, songs and dances. The bira is necessarily secret, and minors and strangers are not invited. The whole ceremony is facilitated by the Diviner N'ganga, who may be classified as a "witch-doctor", and who is the source of much psychological friction between African and non-African (particularly European) in matters of health. The diviner is a necessary key component in this category of disease from the point of view of our traditions, for only he or she can communicate with the spirit world. This happens either by divination (the celebrated bone-throwing, which is really neither more nor less than Mesmer's pendant watch from the early days of hypno-

tism and mesmerism), or by direct communication with the spirits, accomplished by a medium at a seance session, or by the impatient spirit itself taking possession of an individual and through his or her mouth announcing the transgressions that caused the disease, and how they are to be corrected.

Of course such treatment is more likely to fail than to succeed. However, notable successes are attained in cases of mental illness, where the treatment in reality functions as group therapy, supplemented by close family support and understanding throughout the course of the bira and the rituals preparatory to it. A similar success rate in modern psychiatry requires expensive and time-consuming psychoanalytical intervention.

Unfortunately for the diviner, ready explanations for the failure of their treatment of the internal medicine problems cited above is built into the bira ritual itself. The diviner can always claim that the ritual was improperly performed, that the patient's immorality has continued, or that yet another ancestral spirit has been offended. By the time the patient recognises his or her impending demise, it is usually hopelessly late. The patient now proceeds to the hospitals and doctors, but he or she has already essentially given up the ghost, so to speak. The high in-hospital mortality rate for Africans is thus easy to understand!

Disease falling into category B - cause and effect - appears to fit in with the prerequisites of our current curriculum. But does it? In reality it does and does not. This apparent contradiction can be readily understood only from the perspective of traditional culture, mores, religion and traditional body medicine. Diseases of this type may be reviewed from two perspectives, both pivoting around the concept of cause. The first concept of cause may be loosely defined as direct visual evidence, with the accompanying effect: illness. An example of this would be physical injury. Since no immorality or unwholesome living is involved in these cases, such causes may be termed natural. However, if the source of injury is some freak accident, we are back again in category A, not for purposes of treatment of the disease itself, but for prevention of further mishaps.

The second and far more common perception of diseases in category B, is typical of such chronic illnesses as gastroenteritides, cirrhosis of the liver and jaundice, renal failure with oedema, kwashiorkor and marasmus, or cyanotic heart disease, in short, illnesses that result in gross distortion of the external physical body. In such cases the cause is conceived of as witchcraft by jealous neighbors or relatives. The bewitching happens either as a result of ingestion of poison into one's food, or hexing by concoctions conjured up by the witch! Once again, only the n'ganga can treat the sickness, according to this sequence of logic. Hence the unusual parallel pairs of cicatrixes you find on many Africans. Special herb powders are rubbed into these cuts, in an effort to cure the bewitched victim.

There are some notable cases of primary cure with these herbal remedies (especially the varieties that are drunk), notably for various renal and gastrointestinal ailments. Some of the herbs have purgative, antibiotic, analgesic or psychotropic effects. After all, quinine was once a magic treebark chewed by "primitive" people. Certain diseases are thus readily curable by these methods, others are only palliated or temporarily suppressed. The field is wide open for research. However, needless to say, the lack of the germ theory leads to many tragic losses, especially among children and infants, where hours may mean the difference between life and death (or, at best, a human vegetable existence), in diseases such as severe diarrhea with dehydration, meningitis, acute epiglottitis, pneumonia and acute appendicitis.

This leads us to points 2 and 3 of the intended goals of our curriculum review, i.e. early contact with patients and in-country clinical experience (such as our RAP). Such experience gives the medical student plenty of time to acquire the above-mentioned knowledge of the culture and language. This makes mandatory knowledge of the vernaculars for both teacher and student self-evident. The more obvious aim of points 3 and 4 are to get the student not only to appreciate and experience the health problems faced by the majority of our citizens at first hand, but more importantly, to effect change through this intimate contact. A beneficial spin-off

effect will also be an increase in health manpower, while the students are stationed in the field. After all this experience we also hope that the student will want to go back to the community where he or she is well known and accepted, and register to serve his or her internship there. Failing this point, point 5 comes into play, i.e. a mandatory two-year posting after registration.

Health Problems

Let us now look at the health problems facing Zimbabwe. For convenience these may be classified in the following categories:

Category 1. Preventable Diseases of Childhood

Whooping cough
Diphtheria
Polio
Measles
Tuberculosis

} killers of large numbers of
children under five years of age

At a national level we have now embarked upon the Zimbabwe Expanded Programme of Immunization (ZEPI), which is to cover the country's children. The problems of inappropriate technology (breaks in the cold chain system) have now largely been overcome. Additional problems have to do with the perceptions of illness I dwelt upon above.

Category 2. Public Hygiene and Health

Human waste sanitation
Drinking water sanitation
Public hygiene

These problems predispose to endemic chronic diseases such as gastroenteritides, typhoid, dysentery, hepatites, etc. Intense efforts are underway by a multifaceted approach of Community Medicine, Paediatric/Maternal Child Health, Education, Media, Political avenues, etc. Somewhat less than 16% of the rural population is now free of Category 2 problems, after approximately two years of effort - a remarkable achievement, considering the serious lack of manpower.

Category 3. Parasitic Infections

Schistosomiasis (endemic to all rural folk)

Malaria (of prime importance)

Hook Worm

Ascariasis and other helminths

We can only expect a satisfactory reduction in this category when the Category 2 problems are universally solved for Zimbabwe.

Category 4. Waterborne diarrhoeas

Particularly Typhoid, Dysentery, Giardiasis and Schistosomiasis Cholera (under excellent control)

Solutions can only be effective when problems of Category 2 are solved.

Category 5. Malnutrition

A serious killer of infants and children, compounded by our own mistakes of cash economics based on P-E foods, such as peanuts and native grains, as well as by the severe inroads made by food processing and refining industries, baby-foods "rackets" of such giants as Nestle's and others. Subtle advertising and a lack of "truth-in-advertising" laws and food labelling laws (which are woefully non-existent), aggravate these problems. Thousands of children are dying of malnutrition, or are permanently debilitated by hunger every year. When taken along with the foregoing categories, the result is ghastly. Malutilization and maldistribution of food resources play a key role in this vicious circle.

Category 6. Subtle "Conventional" Diseases

Heart problems, which only last August were demonstrated for the first time to be a major disease among Africans.

Cirrhosis of the liver, Alcohol abuse, Certain Herbal Remedies, Parasitism, etc. (Under study)

Hypertension

Cancers

Tuberculosis (widespread if you are looking for it)

STD (widespread in urban centres and making dangerous inroads because of free migration.

Category 7. Geriatrics

No data available to our knowledge. Geriatric problems may be assumed to be a combination of the foregoing, perhaps with other important factors in addition.

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These problems are not insurmountable, provided that we have the necessary skills and resources at our disposal. However, although the medical manpower resources of Zimbabwe are indeed superior to surrounding SADC countries, they are, by any modern yardstick, hopelessly inadequate.

Personnel

All in all, we have about 1.800 medical doctors of all descriptions. About 150 of these are Africans. The great majority are General Practitioners - obstetricians, gynecologists, physicians, surgeons, orthopaeds (two in university), and ENT's (2 of these, at present). As far as specialists go, we have 14 paediatricians (8 of them in university), 2 psychiatrists (both in university), 2 cardiologists (1 in university), about 20 radiologists (1 in university, the rest private) and 2 public health specialists.

This lack of personnel is further aggravated by the geographical distribution of doctors. While about 90% of our population of 7½ millions reside in rural areas, 90% of the doctors are located in urban areas. 80% of the rural doctors are missionary expatriates.

In addition, we have about 4.800 nurses and paramedics. However, this category is dwindling fast because of the poor and unremunerative working conditions and hard service. Besides, while in previous years the only meaningful work options open for young women were nursing and teaching, today women have the freedom to pursue other careers.

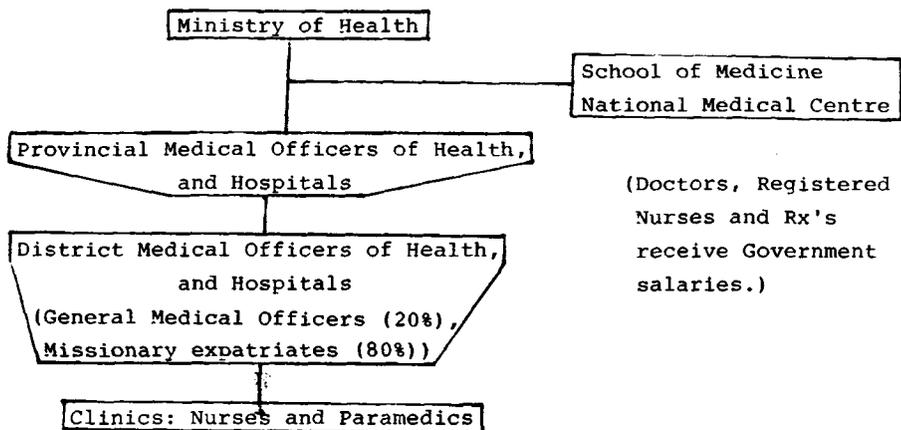
Drugs

We manufacture partially or wholly 40% of our drug consumption, and have to import the rest. This is a considerable strain on our resources, especially when you take into

consideration that health care is free of charge for every-one earning less than 1.800\$ a year (about 12.600 Nkr), i.e., for the majority of the population.

The Health Structure

The following diagram gives a schematic picture of the administrative structure of the Zimbabwean Health system:



Because of the lack of medical personnel in rural areas, a person often has to walk for two hours to get to the nearest clinic.

Our Needs: What can Norway and its Agencies do to help?

We came to Norway in the spirit of cooperation. This cooperation is between two small countries, and therefore safer for us than cooperation with a much larger and more endowed nation would be, since (though there is some national interest involved on both sides) the threat of domination, and thence of alignment, attachment and dependency is removed.

In short, we are seeking assistance in finding solutions to our manifold problems, assistance in achieving self-help and self-reliance. Solutions can only, and must necessarily, come from Zimbabweans, with finesse or fine tuning from Zimbabwe's friends. As far as the health sector is concerned, we can best achieve this along the following lines - subject to further discussion and agreements on both sides in the coming months.

1. Export your surplus doctors, as a short-term "loan" of medical manpower to help us man the health system. As we produce our own personnel, this arrangement will be phased out.
2. Help us with training of expertise by donation of teachers. This would enable us to achieve:
 - (a) a boosting and strengthening of areas where we are weak, such as:
 - epidemiology
 - radiology (radiographers, radiologist training)
 - cardiology, endocrinology
 - water and human waste sanitation; appropriate technology for water raising and delivery systems, fuels, etc.
 - (b) relief for our beleaguered staff, so it can undertake necessary applied (short-term) and developmental (long-term) research. This will provide an ongoing permanence to our medical development.
 - (c) organisation of short-term (6-12 month) diploma courses in agreed fields of expertise-inadequacy (inadequate as viewed by us), in Norway. This would give us access to the wider world, to more sophisticated techniques, which may later be invested in local training programmes.
 - (d) cooperation in joint research programmes mutually beneficial to both sides.
 - (e) equipment maintenance and repair programmes. (3-6 months in Zimbabwe.)
3. Staff exchange programmes at higher levels, in certain fields where language is no barrier.
4. Nutrition and public health. Intensive courses organised jointly between you and us, comprising
 - appropriate technology development, especially safe water and sanitation.
 - reintroduction of local foods.
 - baby feeding and weaning practices.
5. Development of small-scale home industries with minimal technical and scholastic know-how requirements, to improve the socio-economic base of the rural folk.

6. Financial inputs in the form of research grants, to enable research to be undertaken.
7. Eventually (on the Ethiopian model), assistance in establishment of research institutes to serve each region's needs.

In conclusion: The health sector problems facing Zimbabwe are not insurmountable if we have the minimal inputs necessary. "Health for all by year 2000" will then not be merely a slogan, but an achievable reality. Our most acute problem is the lack of skills resources.

(Please note: Portions of this paper have been edited.)



Diki Rukadza medium possessed at ceremony in Katarere and seated on his special ritual place made of stone.



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