DEVELOPING HEALTH MANPOWER
FOR AFRICA'S SMALLEST NATION

Swaziland Health Manpower Project, 1978-1983
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Introduction

"Fertile soil, attractive climate, and mineral riches bring rapid development to landlocked Swaziland. Man planted pine and eucalyptus tracts grow on its mountainous western high veld. Its midsection shapes a fertile belt of farms and citrus groves. Cattle graze its eastern bush veld and everywhere rivers lace its topography."

The above description from the National Geographic Atlas presents a true picture of the blessing nature has bestowed on this tiny monarchy of half a million population, which is surrounded on three sides by the Republic of South Africa and on its eastern border by the former Portuguese territory of Mozambique.

Despite the physical attractiveness of the country, the health picture of Swaziland is only slightly better than that of most third world countries. The sparkling waters of its many rivers are heavily infested with schistosomiasis. Malaria and tuberculosis are common, alcoholism and venereal diseases are on the increase, and gastro-enteritis and respiratory ailments are near the top of the morbidity list. Especially in the rural areas where 85% of the population lives, incomes are low, diets are inadequate, and hygienic standards are poor. Although smallpox, cholera, diphtheria, and leprosy have all but disappeared, maternal and child health are still threatened by a population growth rate of 6.9 births per female
of child-bearing age, one of the highest in the world. Infant mortality exceeds 150 per 1000 live births, and life expectancy at birth is 44 years. 48% of the population is under 15 years of age.

Health Needs and Goals

The two major cities of Mbabane and Manzini have about 16% of the population and 60% of the hospital beds, 62% of the doctors and 55% of the nurses. The bulk of the primary health care to the rural population is provided by nurses who have been prepared in schools of nursing patterned after those in Great Britain. Nurse education needed revision to meet the health care needs of Swaziland. In addition, other paramedical personnel would need to be trained in order to create public health teams capable of serving the rural population.

In 1978, the Government of Swaziland (GOS) and the United States Agency for International Development (USAID) signed an agreement designed to "Institutionalize the Training and Strengthen the Planning and Administrative Capability of the Ministry of Health." USAID would help construct an institution where State Registered Nurses, Nurse-Midwives, Nurse Practitioners, health inspectors, dental technicians, and other paramedical personnel would be educated and where in-service education would be offered for health personnel already employed. In addition technical assistance would be provided through a private contractor, Medical Service Consultants, Inc. (MSCI).

The goals of the project were:

1. to extend health delivery services throughout the
country from the urban centers to the remote villages and homesteads of the rural population; and

2. to shift the major emphasis of health delivery from illness to health care, preventive medicine, and public health services.

MSCI Technicians would work with Ministry of Health personnel to modify the established programs of training for all categories of non-physician health personnel. These changes emphasized public health, disease prevention, maternal and child health, and family planning. Additionally, the basic program for the training of registered nurses was to be modified to include skills in history-taking and interviewing, physical diagnosis and the medical management of the more common illnesses which do not require referral to a physician. Thus, all paramedical personnel trained in this manner would be equipped to employ health maintenance and disease prevention skills in their work. Registered nurses would be better able to help meet the curative and health care needs of the people in rural areas of the country and to give supervision and direction to auxiliary health workers such as nurse assistants and "rural health motivators."

The "rural health motivators" were villagers chosen to work in their own localities. The GOS arranged for them to have 2 - 3 months of training in a wide range of topics including health education, sanitation, detection of disease, agriculture, first aid, nutrition and methods of referral. They would provide a liaison between the villagers, homesteads and the rural clinics which would be staffed by a registered nurse prepared for an
expanded role. This nurse would give care as required and refer more complex cases to the rural health center to be treated by a physician, or sent to a district hospital if indicated.

The training of nursing assistants had already been undertaken by one of the missionary hospitals. This preparation was 20 months in length and had already included preventive care and public health services.

The personnel to be trained at the new institution would thus be supplemented by nurse assistants and rural health motivators to complete a team of workers prepared to serve the community in urban and in rural hospitals, health centers, clinics, villages and homesteads. Those paramedical personnel with the same educational background, who were to be trained at the new training center, i.e., nurses, health inspectors, would benefit from a core curriculum at the onset of their training in order to have the same orientation and to collaborate as a health team following their graduation. Such courses as microbiology, anatomy, and physiology, parasitology, sociology, communicable disease control, health education, preventive care, and health promotion would serve the needs of the entire team before they split into their respective specialities.

**Multi Donor Technical Assistance**

Several other international health organizations were requested by GOS to give support to the project.

The Danish Government (DANIDA) provided a physician to work with the MSCI Nurse Educators in the preparation of nurse practitioners and nurse tutors.

Thus the primary care skills were first taught to the nurse
tutors, nurse administrators, and to selected nurse sisters (head nurses) prior to the inauguration of the basic nursing program so they could in turn teach the basic students of nursing. The physician also served as a medical preceptor to the nurses and helped in the preparation of protocols to guide those nurses who would be serving in isolated areas without a physician close by.

MSCI provided a team of three nurse educators/practitioners— one of whom specialized in maternal/child health, one was a generalist and the third was a short term specialist in curriculum design.

In order to provide suitable sites for clinical practice for the students, it appeared necessary to upgrade selected hospitals and health facilities in both the urban and rural areas of the country. Refrigeration, running water, service vehicles, electricity, adequate supplies of drugs, hospital supplies, and equipment would have to be provided on a regular basis if staff were to be able to deliver safe, competent care to the population.

To meet this need, MSCI provided two technical advisors in health and hospital administration. It was the task of these technicians to improve the organization and administration of the health facilities in the urban and rural areas.

MSCI also provided a statistician in order to assist the GOS in the improvement of the collection and reporting of health statistics so essential for the evaluation of changes in the quality of health care.

The World Health Organization provided a health-inspector/tutor for the training of health inspectors and
Great Britain supplied a nurse-midwife/tutor and a psychiatric-nurse/tutor.

In-country aid was provided by the University of Swaziland where a six month program in mathematics and sciences was given to those registered nurses chosen as future tutors for the Swaziland Institute of Health Sciences. Most of those chosen were later sent abroad to the United States (6), United Kingdom (2), or to Botswana (1), to follow programs in nursing education at the baccalaureate or graduate degree level. These trainees have all returned and presently constitute the greater part of the nursing faculty.

Preparatory Years

Between June 1978 and January 1980, there was much to be done to prepare for the opening of the Swaziland Institute of Health Sciences (SIHS), not the least of which was the perceived necessity for gaining the widest possible support of the entire community of Swaziland. Officials of the Ministry of Health (MOH) were consulted at each step taken in every aspect of the project. The MSCI technical advisors and Swazi nurses made visits to every part of the country to meet with health and government personnel and to acquaint them with the goals and progress of the project as well as to enlist their cooperation and support. Visits were also undertaken to the two sister countries of Botswana and Lesotho since the three countries were all members of the same Nurse Examiners Board, and in all three countries new graduate nurses sit the same examinations for licensure as state registered nurses.

An Advisory Board was established for the SIHS which
included members from the MOH, Ministry of Establishment and Training (Civil Service), Ministry of Education and community representatives from various walks of life.

A Joint Planning Committee was formed with the nurse educators at SIHS and the matrons and senior nursing staff of the hospital chosen for clinical practice.

Tutors from the two mission hospitals where nurses and assistant nurses were given training were invited to meet with prospective tutors at SIHS and formed a Tutors Committee to upgrade teaching skills.

The press and other media were kept continually informed of SIHS activities and were most helpful in keeping the public aware of the project's progress.

The MSCI project team firmly believed that community support and involvement would be a major factor in insuring acceptance of those changes in the traditional role of health care personnel.

**Improving Administration**

While Swazi nurses were being prepared as teachers and nurse practitioners, the construction of the future SIHS was progressing ahead of schedule, the specific health problems of Swaziland were being researched, and appropriate curricula were being developed to respond to these problems.

The selection of clinical practice sites for the basic nursing program seemed for a while to be most difficult to achieve, however. The MSCI technical advisors in the health and hospital administration components of the project were stationed a good distance away from the city of Mbabane, and therefore
regular meetings were not often held between the technicians and MOH to discuss progress and problems. The MOH appeared to perceive them as operational rather than advisory personnel and no counterparts were assigned to work with them in the beginning. The hospital administrator attempted to solve his problem by assuming the district hospital administration and effecting the many obvious improvements needed insofar as he was able. This course of action left no assurance that these improvements would be maintained after the end of the project. The District Health Administrator (DHA) worked with the district officials and drew up plans for improvement in health administration which were submitted to the district officials and the MOH. He developed the first population density map for Swaziland, helped establish drug standardization for the clinics, started on an auxiliary water project and supervised the construction and operations of the rural clinics and district health centers to which he was assigned.

The Hospital Administrator (HA) succeeded in upgrading the district hospital to greatly improved standards, instituting system and order in all departments from dietary, housekeeping, repairs, groundskeeping, security, personnel, budget, supplies, and all other aspects of hospital organization. In November 1980, he was then transferred from the district hospital to the principal government hospital in Mbabane where the SIHS students were to have their urban hospital clinical practice.

In 1981, a new DHA continued to try to improve the district health facilities through clinic maintenance, a health outreach program to remote areas, a logistical supply system, supervision
and in-service training of health personnel. Special attention was given to the development of community participation in local health initiatives. In the Hlatikulu District a hospital board was formed consisting of local businessmen and community leaders. They take an active role in directing hospital and community health development. Before his departure the DHA worked with the Health Education Unit to provide on-going support and guidance to this committee. This now serves as a model for the development of similar committees in other districts.

Both the HA and DHA developed manuals which were accepted and published by the MOH. Over time, the MOH became convinced of the necessity to provide counterparts for both technicians and to send them for participant training. Three Swazis were enrolled in programs leading to an MPA and one more is scheduled to follow.

Thus, despite many hurdles, the health administration aspect of the project had also begun to meet its objectives. Clinical practice sites could now be selected in the improved rural clinics and district health centers so that students could have their required practice in both urban and rural facilities.

The Swaziland Institute of Health Sciences

In January 1980, the first class of 22 basic students of nursing and 10 student health inspectors were admitted to the Institute. It was a proud day for the entire country!

The new students were entirely under administrative control of the teaching staff at all times, and were not considered health or hospital employees. This arrangement allowed for curriculum expansion and also made possible free movement of
teaching staff and students from Mbabane Hospital to outside agencies beyond the hospital and from the urban to the rural areas.

The first three years of the nursing program were basic studies, and the fourth and final year offered specialization in one of two categories for each basic student. The choices are either midwifery or psychiatric/mental health nursing. Additional specialties will be added in the future.

On September 24, 1983, the first graduation ceremony took place. One hundred eighteen (118) proud young men and women had successfully completed programs of study at the SIHS, sixty (60) of whom were registered nurses who had completed the Family Nurse Practitioner program or MCH Practitioner program. The remaining were new entrants into the health care system divided as follows:

18 health inspectors
34 state registered nurses
6 dental hygienists

The seven Swazi nurse educators originally sent abroad for study had returned, with 5 completing B.A. Nursing degrees, one completing MPH/Maternal and Child Health and one with an M.A. Nursing/Family Nurse Practitioner degree. One of the master's prepared nurses is Acting Principal of the Institute. Two more Swazi nurses have since gone abroad, one for B.S. Nursing degree and one for M.S. Psychiatric Nursing degree. These two will return in 1986.

A health statistics unit has been set up at MOH. It is functioning smoothly. The MSCI statistician worked with her
Swazi counterpart for approximately eight months before the counterpart left for participant training as an MPA at Tulane University. The counterpart is expected back in August 1984.

All the MSCI nurse technicians have completed their assignments and only the two British TAs will remain until their counterparts return to Swaziland.

Administration of hospitals and rural health facilities has started to be achieved and the delivery of improved and extended health care to the population of Swaziland appears to be an achievable goal.

**Conclusions**

Several lessons have been learned from this health project. Some are specific to Swaziland while others reflect on development programs in general. Adequate time, trained personnel, equipment, supplies, and transportation required to gather baseline data need to be provided at the commencement of a project in order to have a yardstick against which future project evaluations may be compared.

This time should also be utilized to become acquainted with potential counterparts, familiarize the advisors with the resources and problems inherent in his/her proposed field of activity, and provide initial contacts with the local population, including government officials in the departments of health, welfare, education, and civil service. One may also get acquainted with prospective co-workers from both the local population and from other aid-giving countries.

Time devoted to information gathering and information sharing at the beginning of a change effort can prove to be of
inestimable value if it communicates to the host population and country leaders the conviction that the advisors reason for being in a country is to assist the people of that country to realize their own plans, desires, and aspirations by building upon the level of knowledge and skills which they already possess. Advisors who are willing to listen to the people, to learn from what they already know, and to show respect for the skills and knowledge they already will find that their efforts to share additional skills and newer ideas are received more readily than will those who omit this initial step.

For manpower training projects, the Department of Establishment and Training (Civil Service) should be consulted in the planning stage (and throughout the progress of the project!) to be sure that counterpart trainees will be accepted and authorized to perform their duties. Establishments and Training needs also to be kept informed of the level of education being provided throughout counterpart and participant training in order that host country nationals who complete advanced programs of education will be the higher rank, status and salary commensurate with their education.

A clear perception should be shared by all concerned on the operational versus the advisory roles of all advisors. In fact, ideally governments should be able to designate potential counterparts before the arrival of the advisors if the planners have discussed this beforehand.

A clear understanding of the project proposal and its implications and ramifications is essential for later follow
through by the host country project manager.

On the administration side of the project, hindsight makes it obvious that, in addition to Hospital and District Health technicians, a qualified Nurse Administrator would have been an invaluable addition to the MSCI project team. It also seems obvious that participant traineeships for Swazi nurse administrators in both the hospitals and public health agencies would have facilitated the project's progress significantly.

Despite the "might have beens", however, both the GOS and USAID can take pride in Operation Health Manpower!