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Proceedings of a workshop held at Shiraz, Iran, 6-13 March 1976

Editors: H.A.Ronaghy, Y.Mousseau-Gershman, and Alexandre Dorozynski

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Village health workers: proceedings of a workshop held at Shiraz, Iran,
6-13 March 1976. Ottawa, IDRC, 1976. 48p.

/IDRC pub CRDI/. Compilation of seminar papers on
/health service/s in /rural area/s of /Iran/, /Nepal/,
the /Philippines/, /Thailand/ and /Papua/ /New Guinea/,
with emphasis on the /training/ of /auxiliary health
worker/s — includes /list of participants/,
/statistical data/.

UDC: 614.2

ISBN: 0-88936-106-1

Microfiche Edition \$1

Layout and design: S. Clerget-Vaucouleurs

VILLAGE HEALTH WORKERS

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The views expressed in this publication are those of the individual authors and do not necessarily represent the views of IDRC.

Contents

Foreword

<i>Y. Mousseau-Gershman</i>	5
-----------------------------------	---

iran

Village health workers in Iran <i>Hossain A. Ronaghy</i>	6
Middle level health workers training project in Iran <i>Hossain A. Ronaghy</i>	11
Evaluation of Iranian village health workers efficacy <i>Bahram Zeighami and Elaine Zeighami</i>	14
Health or development? Training of frontline health workers, particularly in Lorestan, Iran <i>M. Taghi Farvar</i>	21

nepal

Health care in Nepal <i>Moin Shah</i>	25
--	----

philippines

Health care in the Philippines within a total framework <i>Victor N. Ordonez</i>	30
---	----

thailand

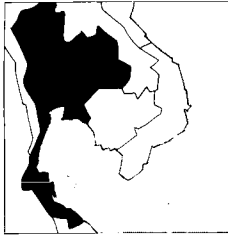
Auxiliary health training and development of the Faculty of Medicine at Khon Kaen University, Thailand <i>Kawee Tungsubutra</i>	33
--	----

papua new guinea

Providing health services for rural populations in Papua New Guinea <i>Goasa G. Damena</i>	38
---	----

Summary of discussions <i>Alexandre Dorozynski</i>	43
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List of participants	47
----------------------------	----



THAILAND

Auxiliary Health Training and Development of the Faculty of Medicine at Khon Kaen University, Thailand

<i>Population:</i>	42.7 million*
<i>Infant mortality rate:</i>	65 per 1000/yr
<i>Crude birthrate:</i>	43 per 1000/yr
<i>Crude death rate:</i>	10 per 1000/yr
<i>Rate of population growth:</i>	3.1% per yr
<i>Per capita GNP:</i>	\$220

**All figures from 1976 World Population Data Sheet of the Population Reference Bureau, Washington, D.C.*

Kawee Tungsubutra

Dean, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand

Thailand's 71 provinces are divided into 8-10 amphurs of 8-12 tambons each, with 8-12 villages in each tambon. In each province in the rural area there is a provincial hospital to handle the curative aspects of health care, and an office of the chief medical officer to handle the preventive and promotive aspects.

At the amphur level, there is a maternity and paediatric centre and a health centre with a resident physician. About half the health centres, which are supposed to have a resident physician, in fact, have none. Ideally, each amphur has a health centre staffed by a physician, but in 565 amphurs, only 252 health centres have MDs practicing in them, and the rest are staffed by nurses.

Tambons have health stations or maternity clinics staffed by health personnel with limited training, such as midwives or other paramedics. At the tambon level, there is a sanitation centre with a public health nurse and one or two junior sanitation workers.

Rural Health Needs

Close to 75% of the population live in about 50 000 villages in which there are no government health officials at all. For their health care, the people in these villages have to rely on old Thai medicine, quacks, or magic. Some pharmaceutical supplies are sold in village shops. The greater the distance of a village from a town, the less its health care system is developed.

We now have four medical schools that train between 350 and 400 doctors a year. The new graduates always choose to practice in the capital or in large towns rather than in rural areas where they feel isolated. Many doctors are concentrated in the 84 provincial hospitals staffed by 12 to 20 physicians each. The result is a very poor distribution of doctors between the urban and rural areas. An additional problem is the loss of competent doctors to developed countries.

We distributed questionnaires about basic health needs to officials in the 16 provinces of the northeastern part of Thailand and we used the analysis of these questionnaires as a guide for developing the curriculum for village health volunteers, and to design our health care delivery system to reach more people.

Analysis of the responses showed that people want, above all, someone nearby to consult when they are ill, with little or no emphasis being placed on that person's level of competence. In reality there is little choice. Even though a villager may want to visit a doctor, it may not be possible because the distance is too great or the cost too high. As a result, the people continue to rely on old Thai medicine, and it will take some time before they will accept a modern health care delivery system.

Three basic problems remain to be solved to overcome the health problem, and it is essential to solve them simultaneously as they are intimately bound in a vicious cycle: poverty, poor education, and poor health.

So far, the government has made no real effort to solve these problems, so we have submitted to the government four proposals that could be the beginning of a solution:

- There should be a consulting hospital in the region to refer patients to, rather than sending them to the city, which is not practical. The provincial medical school should accept this role, and could, in close cooperation with the Ministry of Public Health.

- There should be some mobile units at the medical school to visit every health centre each morning to collect samples to be tested in the medical school laboratories and returned to the health centre on the following morning when the next day's samples are collected.

- The same mobile units would serve as the mobile lending library for medical personnel.

- The government or the Ministry of Public Health should provide better incentives to doctors and nurses who work in rural areas, including assurances of good education for their children.

Close cooperation between the Ministry of Public Health and the faculty of medicine in the region is required to promote a new concept in health care delivery.

Medical and Health Education

Questionnaires were sent to doctors working in each of the 16 provinces of the northeastern region and to provincial leaders. Based on the answers, we have altered the medical curriculum at Khon Kaen University to produce an MD who will serve the requirements of the community, yet retain standards on a par with other medical schools in the country. The duration of medical education is to be kept to 6 years and postgraduate study can be done both in Thailand and abroad.

Medical education has traditionally been divided into three equal parts: 2 years each of premedical, preclinical, and clinical training. In the northeastern provinces where a physician is expected to work alone after graduation in a rural health clinic, the emphasis in the medical curriculum was changed to provide him with a solid clinical background and now includes 1 year premedical, 2 years preclinical, and 3 years

clinical training. An internship of 1 year was instituted as in other medical schools.

Unnecessary detailed in-depth study of some subjects (including anatomy) has been eliminated in reducing the premedical period to 1 year. Practical subjects, such as sociology, economics, and psychology, have been added to the curriculum, with special attention given to community medicine. Both the preclinical and clinical curriculum are integrated by giving a lump sum credit. This method will prevent the departments from going into too much detail in subjects irrelevant to medical students training for general practice. In the clinical period, only general medicine, general surgery, obstetrics, gynaecology, and paediatrics will be taught. Subspecialties will be taught concerning only the diseases common to the northeastern region, such as parasitic infestation or tropical diseases, urinary stones, common skin diseases, anemias, malnutrition, etc. Students will be offered a period for the subject they are most interested in, or that might be most useful (such as anaesthesiology or radiology), which they can, in turn, teach their staff when they are assigned to work alone in the health station. History of medicine, as well as medical ethics, are to be included in the curriculum with the aim of inducing a positive attitude in students toward the profession and its members.

Involvement of medical students in villages is encouraged after they have completed the premedical training. In the summer, 1st-year medical students will visit villages near the university. Second-year medical students will gather detailed health data in villages. Students will visit different villages every year and in time the faculty of medicine will acquire detailed health data on villages that may be useful to future health planning. Third-year medical students will be assigned to 5-day stays in remote villages to advise villagers on improving environmental sanitation. We will follow up the progress of village health volunteers trained by the faculty of medicine and the Ministry of Public Health officers, and will see the differences between remote villages and ones near towns. The students will be trained to advise villagers on preventive and promotive aspects of health care when in villages during the community medicine



At Khon Kaen, volunteers are trained as village health workers.

period. This is hoped to increase the villagers' confidence in medical personnel. Students will be trained and allowed to work in the health clinic and the provincial hospital in the last year of the program.

Recruitment of medical students will favour local students. Northeastern students are handicapped in the secondary school by the relative shortage of qualified and experienced teachers and of equipment and laboratories. If they were not given preference and had to compete with better-schooled students from the capital, only a small percentage of the local students would enter the medical school. Consequently, 60% of the places in the medical school have been reserved for local students. The remaining 40% will be filled by students taking a competitive entrance examination and having interviews with psychiatrists and other medical personnel interested in selecting candidates with good attitudes toward rural people. The students have to sign contracts with the Ministry of Public Health to remain in the northeastern region for 4 years after their graduation. Our first group of medical students will graduate in 1978.

Village Health Workers

Since no qualified doctor will put up with the hardships and inconveniences of the remote areas, we have ensured that there will be some trained health personnel in these areas by training some villagers as health volunteers. With the cooperation of the Ministry of Public Health, our medical faculty has set up a 2-week course to train these villagers. The curriculum, the period of training, the basic knowledge of the teachers and the selection of the trainees are carefully discussed; most of the criteria are based on the knowledge gained from the questionnaires and from visits to the villages.

The intention of this pilot project is to test both the feasibility and effectiveness of extension of the health care system to rural populations by training indigenous village health workers. These health workers or volunteers will serve the rural population as part of a health team headed by a medical doctor.

We will evaluate the effectiveness of our village volunteers in a preliminary assess-

ment at the end of 2 years, and in a final evaluation at the end of 5 years by comparing data collected before and after implementation of the system.

We expect the village health workers to have the following capabilities:

- to understand modes of infestation of common parasitic diseases including malaria, liver flukes, hookworm, roundworm, and tapeworm;
- to teach villagers to protect themselves from these diseases;
- to treat malaria patients;
- to understand and use the referral network for cases beyond their capabilities;
- to treat simple diarrhea, the common cold, tonsillitis, and to make a simple dressing;
- to give first aid treatment and use life-saving procedures;
- to do a normal delivery of a baby without a midwife and to give family planning advice;
- to understand simple nutrition and infant feeding;
- to give advice to villagers about scabies, lice, and fungus infections of the skin.

We do not expect villagers to learn all these skills in 2 weeks but to assimilate as much as they can. We will assist them in the villages every month and either teach them in the villages or recall them every 6 months to study, or both. We expect our students to have mastered all the required skills within 2 years.

These villagers will serve their neighbours as unpaid volunteers at almost no cost to the government. The volunteers will continue to earn their living as farmers while serving as the basic health personnel in a health network.

Our training course for village health volunteers started in early February 1975 with the cooperation of the Ministry of Public Health who lent us their facilities. There is one teacher for the in-service training of each five students. The second course was finished on 24 January 1976.

Follow up and revision

We will avoid too close supervision of the village health workers because it would not help their training, and would be impossible. However, we will assess them frequently to prevent their doing more harm than good. This can be done by arranging a program of health education and disease treatment in



A VHW training group

the villages at regular intervals. The supervisor, the volunteer health worker, and doctors from nearby health stations will participate and get to know each other. The basic health worker will learn not to endanger a patient's life by his own ignorance, and to refer the patients who are beyond his capabilities to the tambon health centre. During the program, an evaluation of the basic health worker's progress can be gained from first-hand observation.

Our supervision system will involve team rather than individual supervision. The health officer who works at the second level health station situated in the tambon nearest the village is most closely associated with the VHW. If we arrange to have the group process operate in the village at regular intervals, other medical personnel including the doctors at the nearby first level health station, and staff physicians in the community medicine program of the medical faculty, can participate in the supervision program. The chief doctor in the province,



Midwifery clinic in rural Thailand

with the cooperation of the medical faculty, has arranged a course for the health officers in selected second level health stations to gain the competence to supervise the VHW. In the team supervision we have different levels of supervisors; only the lowest level of supervisors will be closely associated with the VHW; their area of responsibility is close to the VHW's, and they are receiving formal training by Ministry of Public Health personnel and by us.

Evaluation of the VHW

Individual VHWs will be evaluated every year by the analysis of questionnaires sent to the people in the area where they are working. This will be supplemented by a personal visit of the staff of community medicine of this project, and information from all levels of our team supervision.

We have planned to have an institute of community medicine and population sciences to take over the job when this

project is finished. The objective of this institute will be the continuation of this project if it proves to be effective and useful. Once we have the hospital of the Faculty of Medicine, in-service training can easily be arranged. Along similar lines, supervision of health workers by the existing medical system after the termination of this project, will be done by the Institute of Community Medicine and Population Sciences, with the cooperation of the chief medical officer of the provinces in acting as the representative of the Ministry of Public Health.

The project is applicable in the light of the cost of essential back-up services (supervision, regular enrichment courses, etc.) because the cost is reasonable and even a poor country such as ours can afford it. In the next 5 years when IDRC funding is completed, our Faculty of Medicine hospital will be functioning and the Institute of Community Medicine and Population Sciences established: in-service training and any course can then be arranged and given quite easily and cheaply.