Village Health Workers

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

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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.
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Health or Development? Training of Frontline Health Workers, Particularly in Lorestan, Iran

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In the province of Fars about 3 years ago, an experimental project was conceived with the object of training rural health workers quickly and inexpensively to combat the primary health and medical problems in tribal areas. Villagers with little schooling were to be trained for a period of 12 months. If successful, the model would be applied throughout the country creating a network of health services.

To this end, 31 young men and women were recruited from among the local population primarily through entrance examinations followed by interviews with a team from the Imperial Organization for Social Services. The behvarzes, as these frontline health workers came to be called, are now serving as village health workers (VHW), in three clusters of villages near health centres staffed by physicians.

The behvarzes did not serve migratory tribal populations, since the travel required of physicians to supervise them was excessive. The cost of training was higher than expected and the impact of the behvarzes on the health of their respective populations has not been measured.

Nevertheless the experience proved one thing: health workers with modest schooling could, under the right circumstances, play an important role in bridging the gap between, on the one hand, the oversupply of doctors in well-equipped clinics and hospitals in rich urban areas, and on the other, the lack of any medical or health services in rural areas. This conclusion had been reached in other countries, but it was necessary to demonstrate its validity in the Iranian context.

Two other experiments in training village health workers in Iran had begun somewhat earlier, one by the Pahlavi University Department of Community Medicine, also in the province of Fars, and the other in West Azarbajian, which was a collaborative effort involving the Tehran University School of Public Health, the Ministry of Health, and the World Health Organization. In this report no reference will be made to these two experiments except to say that they have also demonstrated the soundness of our basic approach to a graduated health care system.

Based on the model of behvarz training in Fars, a second experiment was begun within the Selseleh Regional Development Project in Lorestan, western Iran. Here, the training of frontline health workers was considered to be one aspect of a network of interrelated services in community development. Health services, while maintaining a loose affiliation with the project, were administratively, and in fact, autonomous.

The project was within the Prime Minister's responsibility, whereas the health network was part of the Imperial Organization for Social Services, a nongovernmental charitable organization. Both the project and the health network were ultimately responsible to the same man, a special senior advisor to both the Prime Minister and the Imperial Organization for Social Services, but this separation in the field proved to be a source of numerous problems, including poor coordination, which reduced the effectiveness both of the project and of the health network.

Local Involvement

Before attempting to assess the achievements and problems of this experiment, it would be interesting to describe the salient features of the approach used in Lorestan. The project is being carried out in a part of the Selseleh district, north of Khorramabad, with a population of between 35 000 and 40 000 semi-nomads. The basic premises of the project were that through the training of local cadres, participation, research, and a type of endogenous development process would be set in motion in which the main emphases would be on: (1) people, both as the instrument and object of development; (2) participation, through which the local population would be involved in cooperative activities and decision-making; (3) local human and natural resources, fostering self-reliance designed to eliminate excessive
dependence on outside initiative and resources; (4) integrated growth and development; and (5) orientation toward the majority of the population who have usually been denied the benefits of progress.

In spite of a number of management and other difficulties at the outset, the training of four groups of frontline workers in health, education, agriculture/animal husbandry, and women's activities was begun between the autumn of 1974 and the summer of 1975. During August 1975, a common training program was carried out for all trainees. By this time the rural education group had completed about 9 months of training, the health workers about 6 months, and the agricultural extension workers 4 months. The women were still being recruited, though most were still in their villages.

Prior to the common training program the health workers had had a 2-month theoretical training program and a 4-month practical training period. The theoretical training program included: general knowledge of human anatomy and physiology; personal and community hygiene; environmental sanitation; history-taking, physical examination, and record-keeping; the health network and the referral system; disease etiology; injections and dressing; first aid and emergency cases; medical statistics; and some aspects of traditional and herbal medicine.

Following this theoretical training, the practical training program included supervised work, mostly in the health centres, with some visits to villages in the area for purposes of observation, practical training, and administering vaccinations. In addition, a 2-hour class was included every afternoon, on the following subjects: family planning; maternal and child care; normal obstetrics; food hygiene; elementary dentistry, including tooth hygiene and tooth extraction; common local diseases; filling out health certificates; preventive medicine and vaccination; medical and social statistics; and elementary sociology. Finally, in addition to the month-long common training program that will be described briefly later, an "internship" program was planned for the behvarzes, mostly to give them extensive clinical training.

**Epidemiological Research**

Some epidemiological research was done by the behvarzes during their training, with extremely satisfactory results. The work was of publishable quality, and could form a significant basis for planning health services in any area with virtually nonexistent epidemiological or demographic data. This approach would also be useful for evaluating the impact of village workers and primary health care in remote areas.

A second innovation was a habitat management program for malaria control in the area. In spite of nearly two decades of intensive indoor DDT spraying, malaria has not been eradicated in this area and has recently been on the increase. The behvarzes and other frontline workers were involved in simple habitat management activities for anopheline mosquito control.

Another innovation was in the area of recycling and waste management. A pilot methane production plant was set up that converted cow dung — the main fuel in the area — to methane gas and organic slurry. The clean methane gas, or biogas, can supply most fuel needs of rural populations. The heat value of this gas is about two and one-half times greater than that gained from burning dried dung cakes. The slurry is the best organic fertilizer available and returns essential organic material to the soil. In addition, the production of methane helps solve a major public health problem by improving sanitation since human excreta and other organic wastes can also be processed in these plants.

Our pilot biogas plant was located near the common training camp, enabling the health workers and other trainees to become familiar with the processes involved. Further research is needed on the biogas to make its production practical on a community scale, but our experience so far shows that villagers are willing to have community-run cooperative biogas plants that could guarantee everyone's needs, irrespective of the number of cattle they each own.

The most significant differences between the Lorestan and Fars health network were the following: (1) in Lorestan, health care was considered as one component in a total development approach, and (2) health was
considered a basic right of every inhabitant of the region. Thus, the region was divided into 26 subregions, each with a population of about 1000. In the selection of trainees, care was taken to have equitable subregional representation, except by women who were mostly from the town of Alashtar, since there are few schooled women in the rural areas.

**Shortcomings**

In spite of the significant conceptual differences compared with the Fars experience, many shortcomings also affected the program. Some of these will be examined here.

The lack of administrative coordination has already been mentioned. The problem was very serious and should be avoided at all costs in future projects. It meant that in practice the physicians — and hence the behvarzes — were not necessarily subject to the policies governing the development project: there was an unwritten but de facto mutual nonintervention treaty, and it made it very difficult to put the main emphasis on prevention and other nonclinical prerequisites of health. Even within the health network per se there was a lack of coordination between the main health centre in Alashtar and the supposedly affiliated one in a nearby valley.

The recruitment of the 35 behvarzes was done in much the same fashion as in the Fars program, that is, primarily by means of multiple-choice examinations. Moreover, the announcements for enrollment were sent out to the villages through the office of the district governor, who in turn asked the gend'armes under his control to distribute the leaflets. The fact that recruitment was carried out in the difficult winter months further impeded what little contact there might have otherwise been with the local population. One result was that most of the women admitted had a slightly urban orientation.

The training program was carried out in the town of Alashtar, and consisted mainly of classroom and clinical teaching in the local health centre, which had been taken over by the project-affiliated physicians. Field trips to the villages were included in the program one or two mornings a week, but these generally took the form of hands-in-pockets observation exercises.

In short, the peasant health workers were
Well on the way to becoming mini-doctors, complete with white-coated elitist tendencies. The young project physicians themselves did what their training had prepared them to do, by confining themselves to visiting scores of patients every morning in the health centre, sometimes increasing the dependence of the local population on modern drugs and injections, and preparing the frontline health workers to do more of the same. In fact, most observers of the program agree that the behvarzes depend on and use too many modern drugs. The normal array of modern drugs at the disposal of the behvarzes include about 200 medicaments. Some of these include potent and dangerous substances.

Not enough effort was made during the initial training program to teach the behvarzes how to attack the real causes of ill-health — underdevelopment, malnutrition, and poor sanitation. No notice was taken of the vast array of locally available and other herbal medicines, even though the area is very rich in them, and the population's own potential for self-care was neglected.

The common training program was partly intended to change this picture and counter elitism. It was the first time the behvarz trainees were coming into daily contact with their future colleagues in other fields, and also with the rest of the project staff. The program was intensively practically oriented, and included the cooperative construction together with the local population of rural roads, latrines, and clean water sources. It also included cross-disciplinary training.

The health workers learned about agriculture, animal husbandry, and literacy work; the rural teacher-trainees learned about public health and agriculture, and so on. The rural agricultural extension workers participated in the teaching of important subjects in their field to the other groups, and vice versa. The project staff, even including some of the physicians, participated in the practical work. All told, it was quite helpful in rounding out some of the rough edges, but not to the extent we had wished.

The behvarzes were the only group that lived in a town: even though Alashtar has only 4000–5000 people, its atmosphere has many urban characteristics. After the common training program, the behvarzes virtually refused to move to the rural areas.

During the last period of their training a new idea was introduced by the project staff: the so-called "three dimensionalization" of the trainees. (The women's group had been dissolved following the most recent staff changes in the project, leaving only three groups.) This meant that instead of each working in his or her own professional field such as agriculture, health, or education, the trainees would become multipurpose agents of development. Without commenting on the merits of this decision — since more exacting evaluations would be needed for that — we can say that the "three dimensionalization" program has not worked in the case of the health workers. This was, no doubt, at least partly due to the elitist and overly professionalized attitudes of the behvarzes and their physician-teachers.

One conclusion that many of us have reached is that the next time we try to train frontline community health workers it will be without heavy reliance on professional physicians. That is, we will give development a higher priority as the only proper context for health.

\[\text{Village health workers have at their disposal an array of drugs}\]