



The South African Academy of Family Practice's Rural Health Initiative (RHI) is proud to be able to bring you the following section of the journal, that will concentrate on issues pertaining to rural health in South Africa. We hope to provoke discussion on these issues and would encourage anyone interested in rural health to offer contributions to future issues.



RURAL PRIMARY HEALTH CARE IN IRAN



Introduction

This article describes the rural primary health care network in Iran, and my experience of visiting some of the structures which form part of this health service as part of a delegation from South Africa. It contributes to the ongoing discussion in this column around the structure of primary health care in South Africa and the workers required for this. It looks particularly at the roles of different workers in the Iranian system.

Background

Iran has a population of over 60 million people, according to the 1996 census, of whom about 23 million are rural. The country has 28 provinces with more than 65 000 villages. About 50% of the population is under 20 years of age.

After the Islamic revolution and the formation of the Islamic Republic of Iran in 1979, the Ministry of Health developed a new health system for a more equitable allocation of health resources based in primary health care. They declared certain priority policies which were:

- that prevention is a long term investment,
- that rural and underprivileged areas should get priority in resource allocation, and
- that ambulatory care should get priority over hospitalisation.

Based on an experience in West Azerbaijan province in the 1970's, where a research project around delivering primary health care in the province had been conducted, a network for the delivery of primary health care was developed for the whole country. At the beginning the whole focus was on the rural areas but steadily it spread into the urban areas as well.

Structure

The most basic unit of service delivery is the health house which covers an average of 1200 to 1600 people.

This is staffed by a community health worker known as a *behvarz*. Usually there will be two *behvarz* in each health house, with one being male and one being female,

sometimes with additional workers according to the population of the village. Every health house covers one main village and one or more satellite villages. The health house is responsible for:

- maternal and child health care,
- family planning,
- case finding, and follow up of infectious diseases (TB and Malaria), mental health problems and, more recently, other chronic illnesses such as Diabetes and Hypertension,
- limited symptomatic treatment,
- environmental health, and
- occupational health.

The community health workers (*behvarz*) are selected by the community with specific criteria, including the requirement that they are secondary school graduates. They are then sent for training for two years at the Behvarz Training Centre which exists in each district.

Health houses refer to health centres. These cover about 6 000 to 10 000 people in rural areas. A rural health centre has one to two physicians depending on the population, as well as a number of health technicians.

These doctors are responsible for elective and emergency case management, supporting the health houses, supervision of health technicians and *behvarz*, health programmes, administration and, in some cases, midwifery (about 1 in 5 rural health centres have delivery units attached to them). The health centres refer to district general hospitals which are staffed by the main specialties (medicine, surgery, paediatrics, O&G and anaesthetics).

Visit to Health House

We were privileged to visit a health house in Afghe, a mountain village about 90 minutes drive from Tehran. This is staffed by three *behvarz* (two female and one male, with two of them being a husband and wife couple). There are 260 households in the central village with about 876 inhabitants but they also cover another 4 villages (satellites), the furthest being 12 kilometres

away and the closest 3 kilometres, bringing the total to 420 families. This excludes 91 Afghan people in 18 households. Most of the active outreach to the satellite villages is done by the male health worker on a motor bike. The furthest village, with 110 households, is visited twice weekly. What is impressive is that the *behvarz* have these figures at their fingertips and they know a lot about the families. Each household has its own log book i.e. there are 420 log books at the health house each containing the names, genders and ages of all the people in the family, sanitation conditions of the household, history of pregnancies, details of under 5 care, dental care records, etc.

In terms of their functions, the *behvarz* closely monitor the health of their population; for example they monitor immunisation and if a child does not come to the health house they visit the home to do active follow up. New people who arrive get temporary documents for six months and then, if they stay, get formally registered in the logbook for ongoing follow up.

The health house has a wall chart, called the "vital horoscope", where they record all the births, deaths, marriages, divorces, diseases, etc, in the community including the satellite villages. The *behvarz* were able, at a glance, to tell us that this year there had so far been 12 births with no neonatal deaths, no deaths in people under 5, and 12 deaths in people over 5, mostly elderly. They gave us a breakdown of the age groups by gender in the population, and could also tell us the family planning coverage in the area. (There had been 18 females who had been sterilised and 2 males over the proceeding year.) There were no maternal deaths in the area.

They also have a chart of people in the villages with hypertension and with diabetes (31 and 26 respectively) as well as other groups of patients such as those with mental health problems (20). These patients have regular appointments and if they do not keep these, are visited in their homes. What struck me was that there was no recorded STI or TB in this village!

The health house has a small drug cupboard for treating minor ailments which has 32 different medications in it, such as antibiotics, vitamins, iron tablets, immunisations, etc. Any emergency cases are sent through to the health centre. Non-emergency cases are treated by the *behvarz* and if not improving they are referred to the health centre physician who visits

weekly on a Saturday afternoon. Usually the physician sees 5 to 6 patients on a visit. The doctor also checks statistics and discusses problems encountered.

Rasoole Akram Health Centre

The Afghe Health House refers to the Rasoole Akram Health Centre in Lavasant. This was a rural health centre but is now transforming into an urban one as urbanisation is rapidly taking place in Lavasant, as it becomes a dormitory town for Tehran, which is about an hour's drive away. This health centre looks after 2 720 households, representing about 10 900 people, in the same way that the health house does, having logbooks for each family.

There are a number of health technicians who work in this health centre. There is an injection and treatment room which is manned by a health technician who also does injections, dressing, suturing, catheterisation, etc. He has two years training at a nursing school. The dispensary is run by a pharmacy technician. There is an occupational health unit run by an occupational health technician who does control visits to factories, shops etc looking for hazards and health risks, doing about 120 visits per month. She is also responsible for supervising the *behvarz* in the health houses referring to the health centre, in terms of occupational health, so has some experience of agricultural health problems as well.

There are a number of midwives (a type of health technician) who look after immunisation of children, antenatal and postnatal care, family planning, etc. The most common form of contraception is the IUCD, which they are able to insert. Vasectomies can be done at the health centre (they do about two to three per month) but tubal ligations must be referred to the hospital.

The laboratory can do basic tests and is run by a laboratory technician with two and a half years training. There is also an environmental health technician who does monitoring of nutrition, water quality control, sanitary health inspection, etc. All public places in the town have a folder in the health centre and require health certificates.

There is another health technician who is responsible for communicable diseases. He is involved in distributing vaccinations, collecting data, communicable diseases, investigating patients for suspected TB, etc. This particular health technician had been a *behvarz* and then did a course to upgrade himself to be a technician.

There are three physicians who work in the health

centre, from 8 am to 4 pm daily. They see about 25 patients a day. In winter this is mainly upper respiratory tract infections and in summer mainly gastroenteritis, but they also follow up patients with chronic illnesses.

One doctor is the head of the health centre and is thus involved in administration and management. One also goes to the health houses to see the patients referred by the *behvarz* there. They also do checking of family health (going through the folders) and are thus responsible for supervision and control of the work of the *behvarz* and health technicians. However, generally the health centre operates on a much more passive basis than the health houses.

There is also a dentist who sees about 20 patients a day and he is assisted by a dental assistant.

There are no *behvarz* working in the health centre. To make up for this there is a network of volunteers who are largely housewives and who are co-ordinated by an environmental health technician. The volunteer programme is a national programme. Usually volunteers cover about 30 – 50 households but in this centre, because of shortages, they cover about 50-100 households. All the volunteers come in one day per week for training, using a series of manuals especially developed for them. They do all the activities that the *behvarz* do in the rural villages. At the outset they have to map the area that they cover and do a census using the household folder system but then after that they work about an hour per day following up people in their area. They function as a kind of club or support group in that they have introduced a loan system to help each other, and have organised excursions together.

Comments

The system we saw appears very impressive. Recognising that we were probably shown very good examples of a health house and health centre, seeing it actually work in practice was nevertheless inspiring. There is a lot we in South Africa can learn from this.

The extent to which the community health workers and health technicians are the backbone of the service, and the absence of nurses in these primary health care situations, was very interesting and different from our situation. The degree to which these workers also understand what is going on in their villages and communities and know the health status of these people is also notable. It is a very good example of how information is collected and used by the people on the ground and not just collected for submission to a nebulous

provincial or national office.

The fact that doctors are involved in supervising the health houses and in broader primary health care aspects of their work is also very interesting. Obviously their patient load, which is much lower than ours, possibly because the focus over the last 20 years has been on prevention, helps to make this more manageable. Also their system is efficient in terms of following up those who do not attend and making sure that people attend regularly and providing care close to peoples' homes.

I am sure there are many places in Iran where the system does not function as efficiently as what we saw. However it is obvious that there have been major improvements as a result of this system and it is a very important, solid base on which to continue developing a health care service.

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