

case study

‘Healthy mother, healthy child’ – improving the nutritional and health status of women and children in Kazakhstan

Background

Kazakhstan, a country the size of western Europe, has vast mineral resources and significant economic potential. The varied landscape stretches from the mountainous, heavily populated regions of the east to the sparsely populated, energy-rich lowlands in the west and from the industrialized north, with its Siberian climate and terrain, through the arid, empty steppes of the centre, to the fertile south.¹

In recent years Kazakhstan has made a tremendous progress in economic development. However, the health of the population, in particular of women, still requires urgent attention. The nutritional status of women and children, especially those living in economically deprived and environmentally degraded regions of Kazakhstan, is of serious concern. During the Soviet era, Semipalatinsk and the adjacent areas in east Kazakhstan were used for nuclear tests, indiscriminately causing widespread radioactive contamination and environmental pollution. The total number of nuclear tests amounted to 616 in the period 1949–1991 years. During this time, the soil accumulated a very large number of ‘ra-

dionuclides,’ the average half-life radionuclides in the soil is about 25,000 years old. According to the Ministry of Health, levels of cancer in east Kazakhstan and Pavlodar regions exceeded the national average by 1.5 times. In east Kazakhstan, the incidence of tuberculosis in 2012 amounted to 109.9 per 100,000 of the population, while the average national incidence rate for this period was 86.6. The situation is compounded by the fact that people who are engaged in agriculture, livestock grazing and crop cultivation still live and farm in contaminated areas; meaning that radionuclides continue to pollute the agricultural products. Overall, it can be noted that the incidence of socially significant diseases in east Kazakhstan is much higher than national rates. As a result, in Semipalatinsk and surrounding areas, women and children tend to have low birth weights, anaemia and complications during pregnancy. This situation is compounded by low awareness of nutrition and disease prevention among the population.

Urgent attention is required in addressing the health and nutrition needs of populations in east Kazakhstan, if the country hopes to achieve targets set in the Millen-

¹ BBC country profile available at: http://news.bbc.co.uk/2/hi/asia-pacific/country_profiles/1298071.stm.

N° n/n	Location	Maternal mortality in 2011		Infant mortality in 2011		Still born		Child mortality		Birthrate index
		Absolute number	Index for 100,000	Absolute number	Index for 100,000	Absolute number	Index for 100,000	Absolute number	Index for 100,000	
1	South Kazakhstan region	15	19.4	1,321	16.67	858	10.69	1630	20.53	30.6
2	East Kazakhstan region	5	22.4	410	17.88	79	9.05	486		16.4
3	Kyzylorda region	3	15.7	384	19.11	190	9.36	466	23.17	28.45

mium Development Goals with regard to improving maternal and child health by 2015. The Government of Kazakhstan has highlighted its commitment in addressing maternal and child health through the introduction of a five-year programme entitled 'Salamatty Kazakhstan (2011-2015)'. The programme is geared towards improving the nutritional and health status of women of childbearing age.

Alongside this, the Kazakhstan Red Crescent Society (with 19 branches throughout the country) is supporting the government by implementing a 'Safe Motherhood' programme in Semipalatinsk (now called 'Semey').

The Kazakhstan Red Crescent Society 'Safe Motherhood' programme

The Safe Motherhood programme is being implemented in two locations in east Kazakhstan – i) Semipalatinsk city (Semey), ii) Abai town (a rural district town) and its neighbouring settlements. The overall objective of the programme is to improve the health and nutritional status of pregnant women and children in targeted communities. The Kazakhstan Red Crescent Society is working closely with local health authorities and maternity hospitals, to provide guidance, training and special care for at-risk pregnant women.

As part of the programme, the local authorities have helped establish two 'healthy lifestyle' centres in the premises of maternity hospitals in Semey and Abai town. The centres target women of childbearing age living in Semipalatinsk city, Abai district town and adjacent rural areas. They also provide support and advice to women during pregnancy and after delivery to help prevent malnourishment. Staff and volunteers in the centres conduct health and nutrition education for the women and children, monitor at-risk women in maternity clinics/hospitals and train midwives to carry out home visits during preg-

nancy. The project was first piloted in 2002, since 2007-8 the National Society and the health authorities have been working together. Each year, approximately 220 pregnant women in two centres are served as direct beneficiaries. Additionally, approximately 500 women in target communities receive health education on nutrition and the prevention of diseases.

The specific objectives of the overall programme are to: a) support at-risk women during and after pregnancy by providing education, guidance, counselling and clinical care; b) provide training and nutritional advice to all women of reproductive age; and c) strengthen the capacity of health professionals to implement safe motherhood activities.

In order to achieve the objectives, the Kazakhstan Red Crescent Society is conducting the following activities:

- Organization of group activities to provide support to pregnant women during pregnancy – trained staff and volunteers conduct educational sessions about nutrition and how to prevent complications during pregnancy.

Key features are: many of the volunteers are pregnant women themselves so there is peer support in the groups.

- Advise, train and counsel pregnant women on safe delivery and motherhood – two women's centres have been established for this purpose.

Key features are: a training course for pregnant women; nutritional supplements provided for those requiring additional care and support.

- Antenatal check-up and special care for at-risk women to help reduce complications during pregnancies and deliveries. *Key features are: home visits by volunteers and midwives; trained midwives monitoring at-risk pregnant women; referral to maternity hospitals for special care.*

- Health education and information dissemination to strengthen knowledge and skills of community members.

Key features are appropriate promotional materials in local languages; health promotion in target communities and schools.



The auxiliary status of the Kazakhstan Red Crescent Society to the government combined with the commitment of staff and volunteers have contributed to the success of the project. What makes this programme different and effective is that it is women-centred, volunteer-based and uses a collaborative approach. Moreover, the programme differs from other approaches to maternal and child health issues by:

- working closely with local authorities and professionals
- recruiting volunteers from among pregnant women giving advice to peer pregnant women
- selecting beneficiaries in different categories such as:
 - › **most at-risk** (pregnancy with history of complications; pregnancy with HIV and tuberculosis)
 - › **at-risk** (history of low birth-weight babies; history of alcohol/drug addiction; destitute and homeless)
 - › **requiring other types of support** (single mothers; migrant women; women from low socio-economic background)
- providing peer support to women in support groups.

The Red Crescent is considering replicating the project with a focus on the promotion of breastfeeding and nutrition, using the following innovative approaches and techniques:

- development of an animation film for school children on nutrition and broadcast on television
- establishment of an internet portal to provide information on nutrition and reproductive health and related news
- promotion of breastfeeding with a celebrity taking an active role
- development of an interactive computer generated programme on nutrition and safe motherhood.

These innovative approaches will be used to enhance the knowledge of the target population. In addition, the Red Crescent will use existing cooperation channels with the local health authorities – women's clinics, hospitals centres of mother and child.

The staff will spread information leaflets among women; the leaflets contain the basic information about the programme and provide links to the site. A specially designed computer programme of healthy food will be distributed to pregnant women. In addition, it will be possible to add a new component for pupils and conduct a mini-competition during class hours on the theme of healthy eating.

Project impact and results

The Red Crescent local branch in Semey continues to implement the activities with their own resources even though the external funding has come to an end.

To date the programme has achieved the following results:

- Improved collaboration with local authorities and health professionals – paediatricians and midwives at local hospitals/clinics continue to support the activities.
- A total of 359 women in two centres (Semey and Abai) attended educational sessions conducted by trained midwives.
- The before and after assessment of an educational session revealed an increase in knowledge and practice related to nutrition, breastfeeding, new-born care and pregnancy complications.
- As a result of educational sessions and home visits, there has been a significant increase in exclusive breastfeeding for six months by mothers (from about 30 per cent to approximately 75-80 per cent).
- Of the 80 per cent of pregnant women in the project who showed a lower than normal haemoglobin level, 220 women received vitamins and iron/folic acid to prevent anaemia. A training programme for both midwives and volunteers on safe motherhood/breastfeeding has been developed.

The programme has developed a sound monitoring and reporting system. The Kazakhstan Red Crescent Society's health manager at the headquarters is responsible for monitoring the programme's implementation through a system of monthly

reports and by conducting regular visits to the programme sites. Programme managers (for Semipalatinsk and Abai sites) send reports in prescribed formats that provide information about the ongoing achievements, successes and challenges. The following indicators are used to measure the success of activities:

- The number of women trained and who have acquired knowledge related to pregnancy, nutrition, breastfeeding and the care of infants (using pre- and post-tests following educational sessions).
- The number of women maintaining breastfeeding practices according to guidance given.
- The number of women presenting anaemia during pregnancy and receiving nutritional supplements.
- The number of infants showing nutritional deficiencies and receiving nutritional supplements.
- The number of female volunteers from amongst the beneficiaries who take an active role in support group activities.

Each year the project is jointly evaluated by the Kazakhstan Red Crescent Society and the International Federation of Red Cross and Red Crescent Societies' office in Central Asia. The following outcomes are to be mentioned:

- increased level of preparation of nulliparous women for childbirth
- reduced level of pathology during childbirth
- demonstration of positive attitude about the services provided by the National Society
- need for expansion of the programme and inclusion of an information component for all women who are planning a pregnancy
- provision of training for women on taking baby from breast and gradual onset on introducing of complementary feeding for older children.

Lessons learned for scaling up

The programme has been implemented in a context where maternal and child health is at risk due to both economic and environmental factors. The programme provided medical as well as psychosocial support to women and the volunteers were recruited from within the local communities. Training materials and techniques, promotional materials and monitoring formats have been developed for the programme. Having been prepared in local languages and already been field-tested, these tools can now be used in other parts of the country.

The collaboration with governmental institutions is a unique strength of the programme. As the programme is replicated, the existing Memorandum of Understanding between the Kazakhstan Red Crescent Society and the Ministry of Health can be used as a template.

As already stated, the health and nutritional status of women and children is high on the agenda of the Government of Kazakhstan. The programme has similar objectives to that of the government's Salamatty Kazakhstan programme and it is feasible to replicate and expand in priority regions with similar settings. Kyzylorda is one such setting and is under consideration for replication.

To increase awareness of the population, new techniques of nutrition/breastfeeding promotion in schools and communities still need to be improved, such as the development of an animation film for school children on nutrition, as well as broadcasting on television. Involving celebrities to support breastfeeding/nutritional supplement would also help the scaling up.

The programme has effectively addressed the health/nutritional needs of women and children. The design, collaboration with authorities, active involvement of beneficiaries and the capacity to conduct health promotion are the key ingredients for its success. The programme's long-term sustainability depends on merging it with the governmental programme on maternal and child health.



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