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Promotion of Key Family Practices in the Tanout and Magaria departments, Zinder region, Niger

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Abstract. The adoption of Key Family Practices (KFP) plays a determinant role in improving the health and nutritional status of children under 5 years of age. In its community-based nutrition programme, the French Red Cross implemented a strategy of promoting KFPs in 75 villages in the Tanout and Magaria departments of Zinder region in Niger. The key actors in the implementation of this strategy were volunteer workers from the Niger Red Cross, who, after receiving training in KFP and communication and negotiation techniques, carried out awareness-raising activities to encourage behaviour changes through home visits and cooking demonstrations. Food taboos and ignorance are among the underlying causes of malnutrition and represent a true hindrance to the improvement of children's health and nutritional status. Awareness-raising is one of the pillars of behaviour-change interventions.

Keywords. Malnutrition, Niger, Key Family Practices (KFP), community-based nutrition (CBN), home visits, cooking demonstrations, behaviour change.

1 Introduction

To encourage the adoption of good practices at family and community level in the key areas of child survival and development, UNICEF Niger developed a strategy for the promotion of Key Family Practices (KFP) (UNICEF, 1998).

This KFP promotion strategy is based on the adoption of eight practices (Exclusive breastfeeding; Infant feeding from 6 months of age; Hand washing; Use of insecticide-treated mosquito nets; Use of preventive and curative services; Family planning; Home treatment of diarrhoea; Recognising danger signs) with proven impact on improving child survival.

KFPs are behaviours that can be promoted at individual and/or group level, with no need to involve the health care infrastructure (UNICEF, 2011). These KFPs play an essential role in improving maternal health, reach the most vulnerable children and families, have a long-term impact and limit the costs of medical and technical interventions (UNICEF, 1998). KFPs are most beneficial when they are adapted to the social and cultural context of mothers and children. (See Box 1)

In Zinder region in Niger, the health-care coverage is poor. Indeed, according to the Plan de Développement Sanitaire (PDS 2011-2015), Niger disposes of 829 integrated health centres and 2.160 functional basic health care units – Cases de santé- (in August, 2011); the health coverage is 65%. It is one of the reasons why, in its community-based nutrition (CBN) programme, the French Red Cross (FRC) implemented the KFP promotion strategy in 39 villages in Tanout department and 36 villages in Magaria department. An initial awareness-raising phase was conducted in 2010 and the positive results in favour of behaviour adoption encouraged the FRC to launch a second phase to reinforce the adoption of these practices in January 2011.

Through this project, the FRC objective was to participate in the reduction of infant and child morbidity and mortality in Zinder region. Indeed, in developing countries, 1.3 million (Jones, *et al*., 2000) to 1.45 million (Lauer, *et al*., 2006) of infantile deaths are owed to bad practices of breastfeeding. Results of recent researches showed (Edmond, *et al*, 2006) that starting to breast-feed within the first hour of birth can prevent approximately 22 percent of the infant's deaths.

Consequently, the KFP diffusion, through this project, can have a concrete impact on achievement of the Millennium Development Goals (MDG) 4 and 5 (Goal 4: Reduce child mortality rates; Goal 5: Improve maternal health).

Table 1. Effects of health interventions on the under five mortality rate (Ministère de la Santé Publique du Niger, 2008).

Interventions	Proof of efficiency	Efficiency	Control of the mortality under five
1. Expended Program on Immunization (EPI)			**20%**
Vaccination	Confirmed	>80%	
Supplementation in Vitamin A	Confirmed	>80%	
Debugging	Good	>80%	
Occasional preventive treatment	Current studies		
2. Integrated Management of Child Illness (PCIME)			**50%**
Antimalarial drug	Good	>80%	
Mosquito net soaked with insecticide	Good	50%	
Treatment antibiotic pneumonia and acute respiratory infections	Good	>80%	
Salts of Oral Rehydration	Confirmed	>80%	
Exclusive breast-feeding	Confirmed	25%	
Iodized salt	Confirmed	80%	
3. ANTENATAL CARE			**12%**
Antitetanic vaccination of the pregnant women	Confirmed	80%	
Occasional preventive treatment	Good	25%?	
Funds of insurance training of the medical profession	Confirmed	40%	
Preventing Mother-to-child Transmission of HIV (PMTCT)	Good	50%	

2 The Key Family Practices

2.1 Promotion and support of the breast-feeding

The concept of promotion and support of the breast-feeding is rooted in a primary health care approach, which encourages the active implication and the participation of the community members, counts on a reliable support of the formal health system and emphasizes a fair development.

2.2 Participative approach

In 1978, the Alma Ata Declaration on primary health care recognized the value of existing resources in communities to treat health problems, as well as the communities' right and duty to participate in the planning and in the implementation of the health care system.

2.3 Primary Health care

Two recent studies (Lehman *et al*., 2004; Haines *et al*., 2007) have concluded that primary health care have an essential role to play in increasing health coverage.

According to data summarized in table 1, implementation of a specific package of activities which targeted most common diseases, has a substantial impact on the under five mortality.

Table 2 shows clearly that simple and cheap nutrition interventions can reduce the mortality rate. For instance, the under 1 year mortality rate can be decreased by breast-feeding by almost 12% and the vitamin A supplementation reduce the mortality up to the age of 36 months by almost 7%.

2.4 Integrated approach

The following table shows the link between water, hygiene and sanitation actions and the reduction of diarrhoea morbidity.

Table 2. Effects of nutrition interventions on the young infant mortality (Ministère de la Santé Publique du Niger, 2008).

Level of coverage of the interventions	Proportional reduction of death before the age of		
	12 months	24 months	36 months
99% with diet balanced in energy and protein	3,6%	3,1%	2,9%
99% with multiple micronutrients during the pregnancy	2,0%	1,7%	1,6%
99% with promoting and support to breast-feeding	11,6%	9,9%	9,1%
99% with promoting of complementary feeding and other strategies	0%	1,1%	1,5%
99% with Supplementation in Vitamin A	6,9%	7,1%	7,2%
99% with Supplementation in Zinc	1,3%	2,8%	3,6%

Table 3. Proportion of reduction of diarrheal diseases by type of intervention in Water, Hygiene an Sanitation field (Ministère de la Santé Publique du Niger, 2008).

Interventions	% of reduction of the morbidity of the diarrhoea
Drinking water supply	25%
Sanitation	32%
Treatment and good preservation of the water at home	39%
Wash of hands	45%

Diarrhoea is one of the first three causes of death for under 5 children and can be handled by simple measures of hygiene: washing hands with soap before eating and after saddles, can decrease the morbidity of 45 %. According to WHO, more than 94 % of diarrhoeal cases could be avoidable thanks to simple interventions as environmental hygiene, personal hygiene and drinking water supply.

The logic of the integrated approach is consequently interesting.

3 Methodology of implementation

3.1 Intervention

Three levels of organisation were involved in the implementation of this strategy. Women and men volunteers (N=203) from the Red Cross Society of Niger (RCN) as well as key community actors (village chiefs, imams, auxiliary midwives, opinion leaders) from the project target villages, were assigned the task of mobilising the communities. A community-based nutrition team set up by the FRC, comprising a supervisor and seven instructors, trained the volunteers and provided supervision and daily monitoring of their activities. Lastly, the health district, through the intermediary of the directors of the Integrated Health Centres (IHC), supervised community health activities.

All RCN volunteers received training in KFP promotion and communication and negotiation techniques to induce behaviour changes. The FRC also trained these volunteers and supplied them with flip charts and tools for monitoring and collecting data. The programme supervisor and instructors were also trained in KFPs and volunteer supervision techniques.

Numerous methods were used to encourage the adoption of Key Family Practices:

- Awareness-raising sessions
  Volunteers organised awareness-raising sessions twice a month. During these sessions, they used flip charts and addressed groups of villagers (women or men) to demonstrate the benefits of KFPs and how to put them into practice, as well as the consequences of inappropriate behaviours on children. During the days of promotion of the KFP, women are rewarded (loincloths, mosquito nets, flour, rice). These rewards encourage even the most reluctant women to attend these sessions.
- Monthly weighing of infants
  After these sessions, the volunteers carried out the monthly weighing of infants and provided advice to mothers for promoting their children's growth. A community discussion was always held to remind families about the behaviours to adopt to prevent malnutrition in children and to avoid the heavy burden of medical treatment. The children identified as being at risk of malnutrition during these sessions were also screened with mid upper arm circumference

Figure 1. Volunteer training session led by the director of the Falenko IHC (Tanout Health District).

Figure 2. Cooking demonstration by a community instructor in a CBN programme village.

measurements then referred by the volunteers to the integrated health centre.

- Home visits
  The volunteers also organised home visits. The goal of these visits was to promote KFPs in households, to convince, support and encourage people to put into practice the behaviours learned in the awareness-raising sessions. In addition, volunteers monitored pregnant women to check on them and encourage them to attend antenatal visits and to give birth in an appropriate health facility as well as to promote exclusive breastfeeding.
- Cooking demonstration
  Cooking demonstrations were also organised by volunteers to show mothers how to prepare enriched food suitable for infants and most importantly how to use local products.
  The community instructors supervised volunteers in the field once a week during training sessions. This procedure enabled volunteers not only to benefit directly from the support of their supervisors, but also to validate their presentations to the beneficiary populations.
- KFP radio spots
  KFP radio spots were produced, translated into the local languages and broadcast by community radio stations (14 stations) and the Zinder regional radio to extend the awareness-raising action towards a mass health promotion campaign. Three or four broadcasts per day every day of the week encouraged mothers to care for their children and monitor their growth.
- Evaluation
  An evaluation of the project was made using a questionnaire distributed to mothers by health centre directors. Thus every two months an evaluation of the mothers' knowledge about KFPs enabled us to examine the impact of the different awareness-raising actions on the communities' behaviour. No statistical analysis of this questionnaire has been made.

3 Results

From January to June 2011, 950 awareness-raising sessions were conducted in different villages, attended by 21,997 women and 14,387 men. The thematic treated concerned the following eight KFPs:

- Exclusive breastfeeding
- Infant feeding from 6 months of age
- Hand washing
- Use of insecticide-treated mosquito nets
- Use of preventive and curative services (antenatal consultation for pregnant women, paediatrics consultation and vaccinations, curative consultations for the health care)
- Family planning
- Home treatment of diarrhoea
- Recognising signs of danger about the most killer diseases in Niger: Malaria, Diarrhoea

450 community discussions were organised following the monthly weighing sessions to present communities with information on the nutritional status of the children and adjust activities. 15,182 women and 9471 men took part in these community discussions. During the weighing sessions and active screening campaigns, 429 children were identified as being at risk of malnutrition and referred to health centres for an assessment of their nutritional status. Among them, 326 (76%) were admitted to the malnutrition treatment programme, within the framework of the objectives of the project to detect and to refer.

225 cooking demonstration sessions were held during which volunteers taught mothers how to prepare enriched porridges using local products (millet, sorghum, beans, groundnuts, sugar and milk).

2172 home visits enabled the following results to be obtained:

- people at an advanced stage of adopting one of the KFPs were offered support and encouragement
- a return to treatment at the IHC or to the monitoring of children during community-based growth promotion sessions
- the possibility of verifying that the therapeutic rations given to children treated in centres supported by the FRC were used correctly
- the implementation or intention to put into practice recommendations for environmental hygiene

Volunteers monitored 2071 pregnant women to encourage them to attend antenatal visits offered by the health care services; 52.5% of them attended their antenatal visits.

These analyses were made from the results of the visits of follow-up, transcribed systematically in a notebook of activities by the volunteers.

4 Conclusion

More effort must be put into community-based prevention and treatment of malnutrition, with a high level of community involvement. Indeed, given the poor health-care coverage, these activities play an essential role in reducing the prevalence of malnutrition and improving children's health.

It has been shown that the involvement of the general population and NGOs in the development of community activities (promoting hand washing, exclusive breastfeeding, use of mosquito nets by vulnerable groups, use of ORS to treat diarrhoea, use of preventive and curative services) was primordial.

To improve this project, it must be integrated in a global approach with projects promoting food safety, water quality, hygiene and sanitation to facilitate the adoption of these practices.

Food taboos and ignorance are among the underlying causes of malnutrition and represent a true hindrance to the improvement of children's health and nutritional status. Awareness-raising must be considered one of the pillars of integrated programmes aiming to induce behaviour changes.

Mariama Hima, mother of 5-month-old Harouna Lawan, declares:

I decided to adopt this practice after discussing it with my husband. I was convinced by the volunteers and the instructor who came for the weighing sessions. I already had my daughter, who I brought with me, and I decided to try the KFPs for my next baby I am carrying at the moment. I am in very good health and I have no problems with this practice. My child is healthy too and has never been sick and I only go to the health centre to have my child checked. I have seen a big difference compared to my three older children (one girl and two boys) and I think I will continue exclusive breastfeeding with my future children but I'm also willing to show other people how important it is. In fact, now women often come to see my child and they are enthusiastic about it.

I intend to continue breastfeeding exclusively until the age of six months. After that, I will continue to breastfeed but start to give her porridge like the ones the volunteers show us, using millet or sorghum flour with beans, sugar and oil added.

Figure 3. Mariama Hima lives in the village of Tchadou in Tanout department.

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