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# Implementing Family Health Nursing in Tajikistan: From policy to practice in primary health care reform

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## Abstract

The health systems of former Soviet Union countries are undergoing reform away from the highly centralised, resource-intensive, specialised and hierarchical Soviet system, towards a more generalist, efficient health service with greater focus on primary health care. Family Health Nursing is a new model designed by WHO Europe in which skilled generalist community nurses deliver primary health care to local communities. This paper presents a qualitative evaluation of the implementation of Family Health Nursing in Tajikistan. Using Stufflebeam's 'Context, Input, Process, and Product' model, the paper aims to evaluate the progress of this reform, and to understand the factors that help or hinder its implementation. A four-phase research design investigates the development of the Family Health Nurse role over time. In 5 rural areas, 6 focus groups and 18 interviews with Family Health Nurses, 4 observations of their practice, 7 interviews with families and 9 interviews with physicians were carried out. Data were analysed according to the components of Stufflebeam's model. Although the legacy of the Soviet health system did not set a precedent for a nurse who is capable of decision-making and who works in partnership with the physician, Family Health Nurses were successfully implementing new practices. Crucial to their ability to do so were the co-operation of physicians and families. Physicians were impressed by the nurses' development of knowledge, and families were impressed that the nurses could offer real solutions to their problems. However, failure to pay the nurses regular salaries had led to serious attrition of the workforce. We conclude that the success of the Family Health Nurse role in other countries will depend upon its position in relation to the historical health care system.

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*Keywords:* Tajikistan; Family Health Nursing; Community nursing; Health care reform

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## Introduction

Health service reform is underway throughout the countries of the former Soviet Union. Apart from its quality of universal access, the organisation of

the Soviet health system ran counter to the principles of Primary Health Care. The system was hierarchical and centralised, resources were concentrated on treatment at hospitals rather than prevention or outpatient treatment, and the workforce was highly specialised, rather than making effective use of generalist physicians and nurses (Gedik, Oztek, & Lewis, 2002; McKee, Figueras, & Chenet, 1998). Not only was this system ineffective, but it was highly resource-intensive and inefficient,

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to a level that has been completely unsustainable following the fall of the Soviet Union, and the subsequent economic crises of the countries in transition.

Consequently, at a policy level, it is widely agreed that these countries need to reform their health services to a system in which local-level comprehensive prevention and treatment are provided by generalist physicians and skilled generalist nurses (Healey, 2002). Despite this consensus, there has been little research on the implementation of reforms: on what happens at service delivery level when reforms are put into practice (Standing, 2002). This paper examines the implementation of one facet of Tajikistan's reforms: the introduction of Family Health Nursing.

### Health service reform in Tajikistan

Tajikistan is emerging from a period of economic crisis and civil war. It is the poorest country in the WHO Europe region (WHO, 2005) with 72% of its 6.3 million inhabitants living below the national poverty line (World Bank, 2005a). Health is also poor in Tajikistan, with an under-five mortality rate of 96 per 1000 (World Bank, 2005b) and life expectancy of 59 for men and 63 for women (WHO, 2005). Independence from the Soviet Union in 1991, and a subsequent civil war and civil unrest, led to a period of drastic decline of GDP, rising unemployment, deterioration of infrastructure and a flight of skilled professionals to Russia (Falkingham, 2004; Healey, 2002). During the late 1990s, health expenditure fell to less than 2% of GDP, but it has been increasing gradually in recent years. Current health expenditure, at 54 international dollars per capita (compare to Turkey, 557; Uzbekistan, 160), is still the lowest in the WHO Europe area, both absolutely and as a proportion of GDP (4.4%) (WHO, 2007). Of this expenditure, only 21% is government expenditure, the remainder being paid for privately by individuals (WHO, 2007). Government expenditure was traditionally focused on hospitals, to the neglect of Primary Health Care, with hospitals allocated 78% of the budget in 1998 (European Observatory on Health Care Systems, 2000). In March 2002, the Government of Tajikistan approved a health reform programme, to reallocate resources from hospitals to Primary Health Care. Nonetheless, low levels of resourcing of health services continue to present

major challenges to the health of Tajikistan's population.

Tajikistan's reform programme aims to deliver Family Medicine through teams of Family Physicians and Family Health Nurses (MOH, Tajikistan, 2002). Workforce changes are required, including greater numbers of generalist physicians, and a greater proportion of nurses taking on clinical responsibilities. Under the Soviet system, nursing was a low-status and low-skill profession, and many tasks that would have been done by nurses in Western countries were being carried out by physicians (McKee et al., 1998). In 1998 the number of physicians recorded was 11,771 while the number of nurses was 34,452, a ratio of 1:3.4. Tajikistan's Ministry of Health now aims to reduce the numbers of physicians, and increase the numbers of nurses, to arrive at a ratio of 1:6 (European Observatory on Health Care Systems, 2000). In order to enable nurses to take on greater clinical responsibilities, their level of education and skills are also being increased.

### Family Health Nursing

Family Health Nursing has been introduced by WHO Europe in response to an identified Europe-wide need for a skilled generalist, community-based nursing role (WHO Europe, 2000). The role is being piloted in a variety of countries, from countries in transition such as Tajikistan, Kyrgyzstan and Moldova, to high-income countries such as Scotland and Germany (Hennessy & Gladin 2006). Family Health Nurses work with individuals, families and communities to improve health and to cope with illness. Visiting families at home, they carry out prevention activities, early detection of problems and prompt treatment. They may support people who are recovering from illness, or who need long-term care in their homes. They work in partnership with Family Physicians, ideally being a family's first point of contact with the health services, and serving as the link between the family and the physician (Macduff, 2006; WHO Europe, 2000).

In Tajikistan, Family Health Nursing has a core role in the government's nursing development strategy. A target of 8600 postgraduate Family Health Nurses have been identified as necessary to satisfy the requirements of the Primary Health Care sector (MOH, Tajikistan, 2006). This target is to be met through two routes. Firstly, in 2000, a

re-training programme to equip already-qualified nurses to become Family Health Nurses was initiated, which has produced 500 graduates. More significantly, four medical colleges have implemented a new 4-year curriculum for Family Health Nurses, with 700–900 places in total available each year (MOH, Tajikistan, 2006). The first cohort of these students graduated in May 2006. Thus, the initial target is expected to be met within 9–11 years.

The WHO Europe (2000) guidelines for Family Health Nursing identify four main areas of competence for the Family Health Nurse. The nurse needs to be: a care provider, decision-maker, communicator and leader/manager. This is a major expansion of the nursing role compared to the Soviet system. To enable the nurses to work more independently, the training provides them with technical, health promotion, decision-making and risk assessment skills.

At a policy level, Family Health Nursing is a key plank of Tajikistan's health reforms (MOH, Tajikistan, 2006), but there is no evidence to date on its implementation. Hence, this study was designed to answer the following questions:

- Does the Family Health Nurse model enable nurses to take on greater clinical responsibilities, as envisaged in Primary Health Care reform?
- What factors help or hinder the introduction of Family Health Nursing?

### Evaluation framework

Our evaluation was informed by Stufflebeam's (2000) 'CIPP' systemic model of evaluation research. In order to understand how an intervention comes to function in the way that it does, Stufflebeam directs our attention to four components: the intervention's Context, Input, Process and Product.

The Context describes the existing system into which a change is being introduced, the political, economic, social and organisational contexts which impact on the implementation of the intervention and its success or failure. For the present paper, the legacy of the Soviet health care system is the major contextual factor of importance. The Input refers to the new elements comprising the intervention into the system, here, the new competencies of the trained Family Health Nurses. The Process refers to the action phase of the implementation, which brings the system from the initial starting point

when Inputs are introduced, to the eventual Product. The Product refers to the outcomes of the intervention. Although this research has not collected data on health outcomes, we present data on families' perceptions of the Family Health Nurses, and nurses' reported achievements, as indications of the Product of this intervention.

### Study sites

Two-thirds of Tajikistan's population live in rural areas, and this research was carried out in five rural sites in which Family Health Nurses had been posted. Three of these sites were original WHO/World Bank pilot sites for the introduction of Family Medicine. These sites had received considerable investment to refurbish buildings and upgrade equipment. In other areas, Family Medicine was being introduced without the additional investment, and two such areas, adjacent to the pilot sites, were selected for study.

Each of the selected areas is served by a Rural Health Centre and a Health House, which together cover approximately 20,000 people. Rural Health Centres are each staffed by a physician and two Family Health Nurses, sometimes with additional health professionals. Each Health House is staffed by two Family Health Nurses. Two study sites were large villages, while in the remaining three, the population was scattered in small villages and hamlets. In all cases the population is very poor. The local economies rely upon women working in agriculture and men migrating for work to Dushanbe or Russia. The major health issues reported by communities were maternal and infant mortality, malaria, diarrhoea, childhood infections, tuberculosis, goitre, anaemia and hypertension.

### Methods

A four-phase research design was used to provide a longitudinal perspective on the implementation of Family Health Nursing, from 2000 to 2005. The successful implementation of reforms depends upon their acceptability to the workers themselves, the users of the health services (Balabanova & McKee 2004), and the workers' colleagues (Rese, Balabanova, Danishevski, McKee, & Sheaff, 2005). Thus, the study accessed the perspectives of all three groups.

We conducted six focus groups and 18 individual interviews with Family Health Nurses; seven focus

groups with families; nine individual interviews with Family Physicians, and observation of four Family Health Nurses' practice. Participants in phases 1 and 2 were all 18 of the initial Family Health Nurse graduates. In Phases 3 and 4, the selection of participants for interview was constrained by logistical difficulties of travel and communications in remote areas, producing a convenience sample. In these later phases, all Family Health Nurses and Family Physicians who were present and available at the Health Centres at the time of fieldwork were interviewed. Family groups were introduced to the researchers for interview by Family Health Nurses.

Interviews and focus groups were structured by the four components of Stufflebeam's evaluation framework. There was a gradual progression in data collection across the four phases, from Context, to Input, Process and then Product, but in practice there was not a one-to-one correspondence between the phases of the study and the components of the model. Table 1 summarises the data collection, explaining which components of the model were illuminated by each source of data. Interviews were conducted through Tajik, Uzbek and Russian, and were transcribed in English for analysis. The data were analysed under the four headings of Context, Input, Process and Product. Ethical clearance for the research was granted by the Minister of Health in Tajikistan and by the NMCH Ethics Committee at Glasgow Caledonian University.

#### *Phase 1: pre-course*

Focus groups were held with students prior to the commencement of their Family Health Nurse training in 2000. Eighteen students took part in

three focus groups, in which they were asked about their prior nursing practice and their expectations for their practice after the course. This phase provided much of the information on the 'Context' aspect of the evaluation.

#### *Phase 2: post-course*

The same 18 nurses took part in three focus groups upon completion of their re-training. At this stage they were asked about their perceptions of their course, what they felt they had learnt, and their expectations about the implementation of their new skills. These focus groups provided information relevant to the 'Input', concerning the new skills and expectations of the Family Health Nurses.

#### *Phase 3: 1 year post-course*

Between 2001 and 2004, six Family Health Nurses were interviewed after they had been in practice for 12 months. These participants were not the same people who had taken part in the original focus groups. They were asked about critical incidents that had occurred during their work, competencies which they were practising, problems with the role, decisions they had taken and the levels of supervisory support provided. Observation of two Family Health Nurses' home visits, group discussions with two families, and interviews with three physicians were also carried out.

#### *Phase 4: more than 1 year post-course*

In 2005, data were gathered on the progress of implementation after Family Health Nurses had

Table 1  
Summary of data collection

Phase	Date	Data collection technique	Participants	Number	Evaluation framework component
Phase 1: pre-course	2000	Focus groups	Students about to begin FHN <sup>a</sup> training	3 groups of 6	Context
Phase 2: post-course	2000	Focus groups	Newly qualified FHNs	3 groups of 6	Input
Phase 3: 1 year post-course	2001–2004	Interviews	FHNs	6	Context Input
		Observation	FHNs	2	Process
		Focus groups	Families	2	Context Product
		Interviews	Family Physicians	3	Context Process
Phase 4: >1 year post-course	2005	Interviews	FHNs	12	Process Product
		Observation	FHNs	2	Process
		Interviews	Family Physicians	6	Process Product
		Focus groups	Families	5	Product

<sup>a</sup>Family Health Nurse.

been in practice for an average of 2 years, nine months. Twelve nurses were interviewed, two or three from each site. Six Family Physicians and five family groups were interviewed. Changes over time across the four phases are used to shed light on the 'Process' with the reported achievements of Family Health Nurses at Phases 3 and 4 comprising the 'Products'.

## Findings

### *The context: a post-Soviet health care system*

The hierarchical nature of the Soviet health care system, and the severe decline in funds for public services emerged as the most important features of the context.

In the pre-course focus groups, nurses were asked about their existing roles. At the health centres, following the doctor's instructions, they would carry out procedures such as administering drugs, patient massage, and immunisations. Visits in the community also took place on doctor's orders. Nurses described their main community activities as bringing messages to patients from the doctor, collecting a person from their home to bring them to the clinic, and collecting statistical information for the health centre. Health promotion activities were rare. Nurses were considered to be doctors' assistants.

Q: Can you describe what a typical day's work is for you?

S: In the mornings I work in the vaccination room, I give injections, mainly vaccinations to small babies and children. In the afternoon I visit the village and see those who did not bring their children for vaccination.

B: We have to get the women to come to the clinic for the vaccinations, it means going to the houses to bring them in. Also the women when the [obstetrician ...] comes, she only comes twice a week and we have to make sure the pregnant women get to see her.

M: I mainly work in the procedure room and give treatments on the doctor's orders. Sometimes we do not have many patients.

Q: What do you do when you are not busy?  
(laughter)

R: Not much. We do not have many medicines so the people do not come. [...]

SM: My main responsibility is to look after the medicines and give injections. She (pointing to L)

does massage for people. She takes care of therapy. (L nods in agreement)

Q: How do you decide who will have therapy and massage?

L: The doctor tells me. (Phase 1, Focus group 1)

In this system, the nurses had technical skills, which they would implement upon the instruction of the doctor, but they had no professional independence, and no decision-making role. They could not identify any leadership or decision-making responsibilities within their current role as community nurses.

Question: Can you give me an example of a situation where you have made a decision in your work?

(Nurses look at each other in uncertainty)

N: There are none, it is not our job, it is the doctor's job. We want to learn more clinical skills.

H: That is why we want to do this course, so we can do more.

M: If a decision has to be made, the doctor will make it. They do not discuss it with us. That is their job, not ours. They are trained to do it and have more knowledge. (Phase 1, Focus group 2)

They were not confident that physicians would grant them decision-making responsibility, even after their training, because nurses were not seen as having sufficient knowledge to make decisions. The hierarchical legacy of the Soviet health system, then, militated against the acceptance by physicians, families, and indeed the nurses themselves that nurses can take leadership, and can take autonomous decisions in the delivery of health care.

The economic context of an under-resourced health system persistently undermined the Family Health Nurse programme. Nurses complained of not having scales to weigh infants, vehicles to travel to remote areas, or fuel for ambulances.

It is impossible, how can we do this work with what we have? See this? (Points to rusting examination trolley and broken equipment.) It is all like this, everything is old. Since the Russians left we have had nothing here. See the floor! (Points to a gaping hole in the woodwork.) Mind you do not fall down the hole, the floor is rotten! This is where the babies come for injections and see how bad it is. We have nothing and no medicines, see the empty cupboard. It is



impossible. But we do our best. (Phase 3, FHN<sup>1</sup> interview 2).

In the health centres included in the study, over half of the nurses who had undergone retraining had left their posts, reportedly due to poor pay and conditions. Nurses and doctors interviewed in 2001 had not been paid for 6 months. Inflation had reduced the real value of their salary such that it could not sustain a single person, and certainly not a family. Some Family Health Nurses and Family Physicians reported using the gardens of the Rural Health Centres to grow fruit and vegetables to sell at the market in order to supplement their incomes. The lack of salaries may account for some families' reports that there had been an increase in demands by health care workers for informal payments.

A very high workload also contributed to attrition of the workforce. The Family Health Nurses are on call 24 h a day. One of the male Family Health Nurses reported feeling that it was impossible for him even to take a short holiday, as the community refused to accept anyone else in his absence. Married women reported that their families resented the constant intrusions and that their husbands objected to their having to visit remote homes.

#### *The inputs: newly trained Family Health Nurses*

The major inputs into this context are the newly trained Family Health Nurses, who have been equipped with a set of competencies to enable them to carry out their new role. Regarding the core Family Health Nurse competencies of care provider, decision-maker, communicator and leader/manager, the general nurses of Soviet-era Tajikistan were well prepared to be technical care providers, but needed significant development in the other three competencies. They were trained to carry out family health risk assessments, to set objectives for families' care, to implement treatment programmes and to evaluate progress. In taking on a wider range of responsibilities, skilled decision-making about when to refer patients on to the doctor and when to carry out care independently was essential. Nurses were also trained in communication skills, to enable them to prepare health promotion talks.

In the post-course focus groups, the newly qualified Family Health Nurses reported that they

had enjoyed the course, had learned a lot, and that they were excited by the possibilities that had been described to them and the potential of taking on leadership roles. It was the provision of new knowledge by the programme that they referred to with greatest enthusiasm. They felt that they had gained greatly in terms of new knowledge, but were not completely confident that this knowledge was sufficient, or that the physicians would consider it sufficient to enable independent working.

The important thing is your knowledge. We learned a lot in the course but we have to learn more. Without more knowledge we cannot make good decisions. (Phase 3, FHN interview 6)

#### *The process: developing teamwork*

To what extent were nurses permitted to take on increasing responsibility, as envisaged in the Primary Health Care reforms? We consider the 'Process' of implementation here in terms of the changes over time in the activities being undertaken by Family Health Nurses.

In focus groups held on completion of their education programme, the newly trained Family Health Nurses anticipated (correctly for some, it emerged) that their capacities for decision-making would not be recognised by their physician colleagues, and that they would be expected to return to their previous ways of working.

We took some classes with the Family Physicians but I think they will not let us practice as FHNs. There are lots of doctors and they have always been in charge, although now we have new knowledge they will not believe it. (Phase 2, focus group 3)

One year later, interviews and community visits revealed that the implementation of Family Health Nursing was very variable across the five sites. In two of the Rural Health Centres, it was difficult for the nurses to identify any real change to their role or responsibilities.

The doctor is in charge. He asked me to work as a procedure nurse. I do not have time to visit families, I need to stay here and assist the doctor. This is my work. (Phase 3, FHN interview)

In contrast, in the other three Rural Health Centres visited, nurses were spending more time on community activities, and reported significant

<sup>1</sup>Family Health Nurse

changes in their working relationship with the physicians.

As a *feldsher* [doctor's assistant], I only followed the doctor's instructions. Now the situation has changed, I can make my own decisions and that is better for the patients. I can understand their problems and I know what is serious and what is not. (Phase 3, FHN interview 2)

The differences between these sites lay in whether the physicians had completed their Family Physician course yet or not. Interestingly, the different levels of investment between the World Bank/WHO-funded pilot sites and the other sites did not seem to have an impact on the Family Health Nurses' experience. This investment was purely for infrastructure (such as buildings and laboratory equipment), and so may have had more impact on the physicians' experience. Working mainly in people's homes, the facilities at the Health Centres were of less importance to Family Health Nurses.

Interviews with the physicians revealed contrasting understandings of the appropriate role for the Family Health Nurse. Some considered that the nurses' new knowledge equipped them to work in new, more independent ways, others considered that the relation between physician and nurse had not fundamentally changed.

The FHN should be a good assistant to the doctors. A well prepared nurse can take 50% of the doctor's role. The doctor can correct them. They should be trained more on how to deliver good caring practice. It is very good that these nurses have had some more training, they know more than before, their knowledge is still very little compared to the doctor, I do not expect them to prescribe or treat patients. (Phase 3, Family Physician 2)

Five years after implementation, in 2005, interviews with nurses, physicians and families showed significant progress in the Family Health Nurse role. Nurses now felt that they had an important responsibility for their population. They described their primary task as carrying out a risk assessment for local families. In consultation with the Family Physician, they would draw up a plan of primary interventions.

We have designed a logbook to project how many patients will need to be attended to. We have introduced a scheduled visiting programme

to teach families how to prevent diarrhoea and how to use the rehydration kits. We need to examine all the children under 14 and ensure that they have all had their vaccinations. We are prioritising what needs to be done. (Phase 4, FHN 11)

Family Physicians interviewed at this stage considered the nurses to have good communication with families, and to have valuable in-depth knowledge of the families and their health issues. They volunteered examples which they considered indicative of impressive decision-making and action by the nurses in emergencies. Confirming the nurses' description of a new style of partnership working, physicians expressed a new respect for the capacities of nurses to choose appropriate interventions, conduct effective health promotion, and deliver treatment.

I work with two FHNs, they both are able to see and examine patients although it is important they spend their time in the village. They can cover for me when I am not here, they are primary care givers. The patients will see them as they would a doctor. We work with a team based approach. Like a team of doctors all working together, this FHN is an expert in midwifery and gynaecology while I have expertise in childhood illness. (Phase 4, Family Physician 5)

What accounts for the physicians' acceptance and adaptation to the new model of partnership working? Education is highly valued and among physicians, nurses and families, great significance is attached to a practitioner's perceived level of knowledge. After the training, the nurses themselves were confident in their knowledge and abilities, and the physicians were impressed by the good decisions that they had seen the nurses make. As well as its practical value, the training had important rhetorical value—equipping the nurses with new knowledge gave them legitimacy in the eyes of their colleagues and their communities.

#### *The product: perceptions of competent Family Health Nurses*

We consider the 'Product' here as the role being occupied by the Family Health Nurses in their communities 5 years after qualifying. The important question is whether the nurses were successfully taking on an expanded role in the delivery of



Primary Health Care. We focus here on service users' perspectives on the role, and whether new practices were being undertaken by nurses.

The Family Health Nurses had generally become accepted as competent health care providers, by both families and physician colleagues. Family members were impressed by the nurses' ability to prescribe medicines and to deliver treatments, and cited instances where nurses had solved serious health problems such as recurrent miscarriages, prevention of malaria and treatment of children with high fevers. In one village, when asked whether the Family Health Nurse had made any difference, people responded that the difference was that this year, no child had died, when there were usually a few infant deaths, due to diarrhoea and dehydration, each year. While we cannot be sure that this was due to the Family Health Nurse, the statement at least indicates the families' confidence in the nurse.

The nurses' accessibility—in terms of being on call all of the time, and in terms of being locally based rather than families having to travel for a hospital for a consultation—was also highly valued by families. Thanks to their accessibility and perceived competence, Family Health Nurses were being seen as the community's first point of contact with the health system, and were held in much greater esteem than previously.

We have become used to our family nurse. We do not allow anyone except her to come to us. We never trusted nurses before because they did not have any knowledge, they could not help us, we had to have the doctor. Now they are like mini doctors, they can do many things and more. (Phase 4, Family 2)

The 'Product' is also a new set of activities being undertaken at the nurses' initiative. Family Health Nurses described new practices of organising health promotion activities, carrying out care that previously would have been delivered by a specialist physician, problem-solving when community members' living conditions undermined their health, and independently prescribing treatments or making direct referrals.

One nurse had opened a day care centre in her village for people with chronic health problems. Another had initiated a family planning project for the women working in the cotton fields. She started discussion groups in the fields, gave information on methods of family planning, and brought in older

women with family planning expertise to speak with the younger women. Another, on the basis of her health risk assessment had decided to prioritise early treatment of children with diarrhoea. As well as organising new health promoting events, nurses were gaining a role as advocates for people who needed extra support, as the following example illustrates.

The main problem with this man was that he could not milk his cow. His daughter was in Dushanbe and his son in Moscow. He was now not able to move following his stroke and he was really worried about his cow. I milked his cow for him when I went to see him and then I was able to talk to the village elder and they arranged something. (Phase 3, FHN 3)

Previously, such community health activities could only have occurred upon the instruction of the physician, but now they are being initiated by Family Health Nurses. It appears that a new role for nurses has indeed emerged as a Product of this implementation process.

## Discussion

This paper has sought to evaluate the progress of the implementation of Family Health Nursing as part of Tajikistan's health service reforms. In response to our first research question, of whether the Family Health Nurse model does indeed enable nurses to take on greater clinical responsibilities, our conclusion is relatively positive. Despite an initially adverse context, in which nurses were considered doctors' assistants, low in status and without a decision-making role, findings suggest that, following their retraining, nurses are working in new ways. They are taking on responsibility for prevention as well as care, taking independent decisions, and working in partnership with physicians.

Our second research question addressed factors that helped and hindered the reform process. Regarding hindering factors, the success of Family Health Nursing has been undermined by a profound lack of resources. Most fundamentally, the inability of the government to pay regular salaries had led to attrition of the workforce. Although the current health reforms are intended to be more affordable for Tajikistan, even this new system is proving difficult to finance. It is a matter of urgency for a robust financing system to be established so that

Family Health Nurses' valuable contribution to primary health care can be capitalised upon.

Turning to the factors that helped the introduction of Family Health Nursing, we have identified explanations for the success of the new role, from the perspectives of the nurses, physicians and families. Firstly, successful implementation depended upon the enthusiasm of the nurses themselves. They have gained highly valued education, which equips them with skills to carry out an autonomous, generalist community nurse role. The direction of movement for the nurses was from a low status post to a higher status one, which may partly account for their enthusiasm. In other settings, the introduction of generalist models of practice entails a move to a role that is considered lower status, and thus is less popular with the practitioners. This is the case for physicians in former Soviet Union countries who are being asked to retrain from being specialists to generalists (Rese et al., 2005). In Scotland, where community nursing is delivered by workers with specialist qualifications, Family Health Nursing is more controversial among nurses than in Tajikistan (Macduff & West 2005), which may be due to a concern that the generalist role involves a reduced level of skill. Thus the enthusiasm for the post in Tajikistan at the present time should not be taken to mean that the role will be universally popular. The sense of new development, valued education and new skills were major factors in the Family Health Nurses' enthusiasm, and as Family Health Nursing becomes more established, this sense of sudden progress (and related enthusiasm) may fade.

Secondly, for the role to work depends upon its acceptance by service users. We found that rural families do indeed make use of their Family Health Nurse in the ways anticipated by the reforms, treating them as their first point of contact, and relying on them for many of their health needs, rather than going to a specialist physician. Ironically, one of the reasons for this success may lie in the deterioration of health services prior to the reforms and after the collapse of the Soviet Union. What was available to families before was so poor that the availability of Family Health Nurses could not but improve the system. Another reason for their acceptability may lie in the cost to rural families of health care. There is some evidence that the level of informal payments demanded of users is higher for more specialist services, and

higher for hospital care (Falkingham, 2003), and thus primary care is likely to be popular with poorer populations.

Thirdly, the success of the Family Health Nurse role depends upon the physician allowing the nurse time and space for their new responsibilities. In a multi-country evaluation of Family Health Nursing, it emerged that change management, to mobilise commitment at all levels of health services, was crucial to implementation (Hennessy & Gladin 2006). The physicians' support in Tajikistan was related to the value that they attributed to the nurses' increased education and knowledge. The division of labour between nurses and physicians, with the physicians at the clinics while nurses carried out home visits may have allayed concerns among the physicians that their professional boundaries might be threatened.

This study, of course, has limitations, which make our findings somewhat tentative. Quantitative outcome data were not collected, nor was random sampling undertaken, and while successful implementation of Family Health Nursing was evident in our study sites and among our participants, we cannot be sure of its success elsewhere. Further, Family Health Nurses in this study were graduates of a 6-month re-training programme, not the 4-year education programme which will have a more significant impact in Tajikistan. The nurses in this study have less specialised training, but more practical experience, than the graduates from the 4-year programme, and these differences may have an impact on the implementation process. However, the competencies being taught are the same in each education programme, and at the time of study, only the 6-month programme had produced graduates.

Notwithstanding these caveats, we conclude that the Family Health Nurse model has positive potential as a means of bringing Primary Health Care to local communities in countries of the former Soviet Union. It is not simply the technical features of the role that have led to its success in Tajikistan, however, but how the role fits within its historical context. It is considered an advance on the old system, for different reasons, by nurses, physicians and service users. To assess the acceptability of the role in other settings would require an analysis of the existing health system and whether the Family Health Nurse role would be perceived as progress or regression in this system.

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## References

- Balabanova, D., & McKee, M. (2004). Reforming health care financing in Bulgaria: The population perspective. *Social Science & Medicine*, 58(4), 753–765.
- European Observatory on Health Care Systems. (2000). *Health care systems in transition: Tajikistan*. Copenhagen: European Observatory on Health Care Systems.
- Falkingham, J. (2003). Inequality and changes in women's use of maternal health-care services in Tajikistan. *Studies in Family Planning*, 34(1), 32–43.
- Falkingham, J. (2004). Poverty, out-of-pocket payments and access to health care: Evidence from Tajikistan. *Social Science & Medicine*, 58(2), 247–258.
- Gedik, G., Oztek, Z., & Lewis, A. (2002). Modernizing primary health care. In M. McKee, J. Healey, & J. Falkingham (Eds.), *Health care in Central Asia*. Buckingham: Open University Press.
- Healey, J. (2002). The health care workforce. In M. McKee, J. Healey, & J. Falkingham (Eds.), *Health care in Central Asia*. Buckingham: Open University Press.
- Hennessy, D., & Gladin, L. (2006). *Report on the evaluation of the WHO multi-country family health nurse pilot study*. Copenhagen: WHO Regional Office for Europe.
- Macduff, C. (2006). A follow-up study of professionals' perspectives on the development of family health nursing in Scotland: A questionnaire survey. *International Journal of Nursing Studies*, 43(3), 345–356.
- Macduff, C., & West, B. (2005). An evaluation of the first year of family health nursing practice in Scotland. *International Journal of Nursing Studies*, 42, 47–59.
- McKee, M., Figueras, J., & Chenet, L. (1998). Health sector reform in the former soviet republics of Central Asia. *International Journal of Health Planning and Management*, 13(2), 131–147.
- MOH, Tajikistan. (2002). *Health reform programme*. Dushanbe: Ministry of Health.
- MOH, Tajikistan. (2006). *Nursing development strategy in Tajikistan up to 2015*. Dushanbe: Ministry of Health.
- Rese, A., Balabanova, D., Danishevski, K., McKee, M., & Sheaff, R. (2005). Implementing general practice in Russia: Getting beyond the first steps. *British Medical Journal*, 331, 204–207.
- Standing, H. (2002). An overview of changing agendas in health sector reforms. *Reproductive Health Matters*, 10(20), 19–28.
- Stufflebeam, D. (2000). The CIPP model for program evaluation. In D. Stufflebeam, G. Madaus, & T. Kellaghan (Eds.), *Evaluation models: View-points on educational and human service evaluation* (pp. 279–315). Boston: Kluwer-Nijhoff.
- WHO. (2005). *The world health report 2005—make every mother and child count*. Geneva: WHO.
- WHO. (2007). *World health statistics 2007*. Geneva: WHO.
- WHO Europe. (2000). *The family health nurse: Context, conceptual framework and curriculum*. Copenhagen: WHO Regional Office for Europe.
- World Bank. (2005a). *Millennium development goals: Progress and prospects in Europe and Central Asia*. Washington, DC: World Bank.
- World Bank. (2005b). *World development indicators*. Washington, DC: World Bank.