

mabel 361/wb
March 2002

GOING AHEAD WITH PRIMARY CARE AND GENERAL PRACTICE IN BELARUS

Description and evaluation of a pilot project 1998 - 2001

Wienke G.W. Boerma
François G. Schellevis
Valentin Rousovitch

March 2002



The project was funded by the Dutch Ministry of Foreign Affairs
in the MATRA programme

Nivel, p.o. box 1568, 3500 BN UTRECHT, The Netherlands
tel. -31 30 27 29 652
fax -31 30 27 29 729
www.nivel.nl
e-mail w.boerma@nivel.nl

CIP-INFORMATION KONINKLIJKE BIBLIOTHEEK, THE HAGUE (NL)

Going ahead with primary care and general practice in Belarus; Description and evaluation of a pilot project 1998 - 2001 / W.G.W.Boerma, F.G.Schellevis, V.Rousovitch
Utrecht (NL): Nivel

ISBN

Key words.: general practice, health care reform, evaluation, Central/Eastern Europe, Belarus.

© Wienke G.W. Boerma, François G. Schellevis and Valentin Rousovitch

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of Nivel.

Contents

1. Introduction

- 1.1 Belarus: the country and its population
 - 1.1.1 The country - 1.1.2 Population and health
- 1.2 Health care and health care reform
 - 1.2.1 The heritage - 1.2.2 Current organisation and situation - 1.2.3

Financing

- and benefits - 1.2.4 Medical education and career
- 1.3 Krupitsa: cradle of the project
- 1.4 Relevance to the programme 'Matra'

2. Themes of the project

- 2.1 Developing a model for primary care
- 2.2 Private practice
- 2.3 Legislation, regulation and management techniques
- 2.4 Non-governmental organisations
- 2.5 Quality of care
- 2.6 Education and training
- 2.7 Physicians' income and incentives

3. Evaluation of the project

- 3.1 Elements of a structured evaluation
- 3.2 Provisions for the evaluation: our compromise
- 3.3 Sources of information used for the evaluation

4. Objectives and operational goals

- 4.1 Establish a network of model practices
- 4.2 Develop a policy for primary care
- 4.3 Make legal procedures and regulations
- 4.4 Training of doctors and develop curricula
- 4.5 Information feed back, research and evaluation
- 4.6 Improve the organisational infrastructure

5. The planned programme

- 5.1 Planned methods and outcomes per project target
- 5.2 Planned resources

6. Account of realised events and purchased equipment

- 6.1 Realised expert missions and events overall
- 6.2 Five study tours
 - 6.2.1 Study tour 'Health care policy and management' - 6.2.2 Study tour 'General Practice' - 6.2.3 Two study tours 'Home nursing care' - 6.2.4 Training 'Research methods and statistical techniques'
- 6.3 GP equipment for the model practices
- 6.4 Computers in various settings
- 6.5 Instruction materials for the GP re-training course

- 6.6 Premises and transport
- 6.7 Project office equipment
- 6.8 Conclusions

7 General impact and specific outcomes

- 7.1 Belarus counterparts on the project's general impact
 - 7.1.1 Policy, management and teachers - 7.1.2 The participating GPs
- 7.2 Effects on the patients
 - 7.2.1 Changes in the patients' experiences: the Quote study - 7.2.2 Effect on patients as perceived by the GPs
- 7.3 Conclusions

8 Specific outcomes per project area

- 8.1 Outcomes on 'model practices'
 - 8.1.1 Creation of the practices network - 8.1.2 GPs' referrals to specialists - 8.1.3 GPs' prescriptions of medicines 8.1.4 The provision of particular services - 8.1.5 Patterns of morbidity - 8.1.6 Satisfaction among GPs and patients - 8.1.7 Identifying possibilities for home nursing care - 8.1.8 Conclusions on 'model practices'
- 8.2 Outcomes on 'PHC policy & regulation'
 - 8.2.1 Pharmaceuticals - 8.2.2 GP payment system - 8.2.3 GP job description - 8.2.4 Future PHC development - 8.2.5 Community nursing - 8.2.6 Districts: the missed level - 8.2.7 Conclusions on 'policy and regulation'
- 8.3 Outcomes on 'Training & education'
 - 8.3.1 GP re-training programme - 8.3.2 GP peer review and quality assurance - 8.3.3 Training programme on community nursing - 8.3.4 Conclusions on 'Training & education'
- 8.4 Outcomes on 'Information & research'
 - 8.4.1 Practice information system - 8.4.2 Information feed back and research - 8.4.3 Conclusions on 'Information and research'
- 8.5 Outcomes on 'Institutional development'
 - 8.5.1 Department of General Practice/Family Medicine - 8.5.2 Facility for research and information - 8.5.3 Association of GPs - 8.5.4 Conclusions on 'Institutional development'

9 Project facilitation and continuity

- 9.1 Organisation and staff
- 9.2 Consolidation and continuity
 - 9.2.1 Dissemination and publicity - 9.2.2 Soundings for a new project

10 Conclusions

References

Annexes

1. Introduction

Between 1 July 1998 and 30 April 2001 a Dutch funded pilot project has been implemented in primary care in the Minsk region, Belarus. The aim of this project was to strengthen general practice and primary care as the first point of access to health care. Experiences of this project should be a basis for further health care development in other regions and at national level. The activities of this project focussed on the practical level (physicians and nurses), the management level (the region health authorities) and the Ministry of Health. Furthermore the project aimed to create an infrastructure for primary care and general practice by means of an organisation of general practitioners (GPs) and the promotion of research and evidence based practice and policy making.

This report is a systematic account of this undertaking: the project's achievements will be carefully related to what was planned prior to the start of the project. Because this approach is not usual with these kind of projects, a chapter has been devoted to the motivation and background of the evaluation. The objectives and operational goals, as formulated before the project started, are important as references to examine the success of the outcomes. That is why these goals have been described in detail in this report. The actual evaluation starts in chapter 6, where events are described and purchases listed. It is mainly an evaluation of the process and the planned inputs. The chapters 7 and 8 deal with real outcomes of the project. Chapter 9, dealing with project management and continuity, describes the conditions of the programme implementation. Conclusions are drawn in the final chapter.

1.1 Belarus: the country and its population

§ 1.1.1 The country

Belarus, with a population of about 10 million or 48 per km², is an independent state since 1991 with the city of Minsk as the capital (1.7 million inhabitants). Large parts of the country consist of forests and marshlands. Surrounded by Poland, Lithuania, Latvia, the Russian Federation and the Ukraine, it has a strategic position, in particular for the traffic between western Europe and Moscow. Belarus consists of six administrative regions, the so called Oblasts, which are further subdivided in districts, or Rayons. The city of Minsk has a separate administrative status.

In the days of the former USSR, Belarus was heavily dependent on trade with other countries of the Soviet bloc. After the end of the Soviet Union and the start of the independence of Belarus the economy experienced a profound collapse, with a sharp fall of the gross domestic product (GDP) a tremendous stagnation in production and trade and a towering inflation, particularly in the years 1998-2000. The traditional strong position of the country as a grain producer was also negatively affected by the results of the Chernobyl disaster, in neighbouring Ukraine, that hit the country so hard. For its energy Belarus is largely dependent on expensive imports, mainly from Russia.

Until now, there has not been a large-scale structural reform in the industrial, agricultural and financial sector. In an attempt to cope with the economic difficulties protectionist measures have been taken; price controls have been re-established and even increased in the late nineties. Privatisation is not significant by lack of priority in this matter; the state continues to play a major role in

production and distribution. Despite an originally rich human resource basis and reasonable infrastructure the living standards of the population worsened during the past decade and there are no signs of quick improvement. The living standards of the population, particularly the elderly, remain deteriorating: the World Bank reported almost one quarter of the population to live below the national poverty line in 1999. During a visit to Minsk, in November 2000, the country director of the World Bank said there were still fundamental disagreements on the Government's main lines of economic and structural reform policy. In contrast to most other countries in central Europe the official policy of Belarus is directed to the east rather than to the west. There have been agreements with the Russian Federation, eventually meant to create a Union between the two countries. The relative isolation is not just economically. There are tensions in the relations with the European Union since the Constitution was amended in 1996, resulting in a concentration of executive, legislative and judicial powers. The then nominated Parliament was not recognised by the European Union, nor were the parliamentary elections held in 2000.

§ 1.1.2 Population and health

Lowering living standards, uncertain prospects and the resulting stress have a negative effect on indicators of the population's health. An additional deteriorating factor is the quality of the health services, which is still low. The average life expectancy at birth, now being 62.9 for males and 74 for females, continues to decrease. Respiratory diseases make up a large proportion of the registered morbidity, 30% among adults and 60% among children. Other major categories are diseases of the circulatory and digestive system. As in the old days abortion is the most common means of birth control in Belarus; on 100 births there are 160 abortions.. Alcoholism is a major health threatening life style problem. It is estimated that 10% of the population drinks heavily. Admissions for inpatient treatment of alcoholic psychosis was 42.1 per 100.000 in 1994. In that year there were 2430 lethal poisonings from alcohol. The prevalence of tuberculosis is increasing with 43 new cases per 100.000, the total prevalence grew to 173 per 100.000 in 19. (Ref).

The direct effects of the Chernobyl disaster on mortality are less obvious than the indirect effects: cases of thyroid cancer multiplied by 80 since 1996 and also other tumours and leukaemia increased markedly. An estimated 1.5 - 2.5 million people still live in dangerously contaminated areas. It is expected that, in the longer run, this will contribute to higher mortality. Like in many other European countries, leading causes of death are currently cardiovascular diseases and cancer. Experiences in reforms in other countries in the region learn that the development of the general health status of the population and the life expectancy follow the development of the economy and the average income per head (ref). Therefore, there is little reason to expect the current trend in health to change soon.

1.2 Health care and health care reform

§ 1.2.1 The heritage

The Great Patriot War (1941-1945), as the second World War was called in the Soviet Union, ruined the country; it not only lost almost a quarter of its population, also the health care system was destroyed. In the reconstruction highest priorities

were given to sanitary measures to cope with infectious diseases. Focus of the new system was on prevention, public health and occupational health services. Curative care was mainly inpatient and specialist oriented. Features of this system, called after Semashko, are: funding and provision by the state with a central position of the hospitals, surrounded by polyclinics and smaller scale facilities. The central responsibility for all medical care, medical education and research, is with the Ministry of Health. The organisation of health care is strictly geographical, according to the administrative structure with regions (oblasts) and districts (rayons). Social appreciation for health care and health care workers was not high in the communist time, when industry and industrial workers were central. When the economy went down, 'not-productive' sectors, like health care, became more and more neglected. Already during the Soviet period, and particularly during 'glasnost' and 'perestroika' the shortcomings of the system - inefficiency, oversupplies of staff and services, too centralised planning and management, lack of responsiveness to the population's needs - were recognised. Experiments with new models of financing and provision were started, also in the then Soviet Republic Belarus; but it was too late for follow up. Not just the economy broke down, but also the political system: the Soviet Union collapsed and the constituent republics, among which Belarus, became independent. A difficult period started, where Belarus indeed could go its own way without the directives from Moscow, but with even less resources available for health care than before.

§ 1.2.2 Current organisation and situation

The current organisation of health care has not been much affected by the turbulence of reforms that other countries in the region have experienced. The government wants to proceed with caution and a major aim is to avoid instability in the country.

As explained above, health care is organised as a pyramid according to geographical criteria, but with categorical parallel systems as peculiar inconsequence. At the *national* level, the Government and the Ministry of Health hold the final responsibilities for planning, financing and provision. The budget for health is negotiated yearly between the Ministry of Health and the Ministry of Finance. The highly specialised tertiary care facilities are organised at national level. The *regions* are relatively autonomous in the planning and provision of services. The 6 regional authorities have a department for Health. At this level there are categorical hospitals and regional hospitals and polyclinics for the more complicated referrals. The lowest administrative level is the *district*, where core facilities are the district hospitals, supported by polyclinics providing both generalist and a range of specialist services. These central district facilities are usually located in the urban centre of the district. In polyclinics there is a differentiation of tasks in primary care with paediatricians, gynaecologists and district doctors (therapists) for children, women and adults respectively. In villages curative and preventive care are provided from smaller centres where curative and public health services are provided by general physicians and nurses; usually there is no differentiation here according to age groups and sexes. In remote areas there are health posts staffed with feldchers only. (Feldchers are traditional 'Soviet' paramedical providers, primarily for preventive care to mothers and children and as an intermediary to doctors). There is no

separation between primary and secondary care. Most specialists can be contacted directly and therefore these are relatively strongly involved in care that could be qualified as primary care. Primary care competence and the range of services provided by general physicians, or district doctors, are limited. The role of nurses in polyclinics and health centres is mainly administrative. Doctors do visit patients in their home, but community nursing or home care does not exist. Apart from this system, and not funded from the budget for health care, there are *parallel categorical networks* for health care, run by other ministries and large companies, such as the military forces, civil servants of the Ministry of Internal Affairs and the State Security Services, and employees of national companies for the railways, the airline and telecom. These parallel systems differ in comprehensiveness and quality. There are no plans to integrate them in the regular system.

The style of management in health care is traditional, with formal top-down control based on strict bureaucratic rules and sanctions. Primary care physicians, heavily involved in detailed accounts of their activities, are under the inspection of a range of specialists, each for a segment of care. This results in a defensive working style, not vis-a-vis the patients, as it appears in western European countries, but to be safe for the inspectors.

The health care system has severely suffered from under-funding during the past decades; equipment is outdated, most premises are in a poor condition and there is a general lack of means. Low competence of primary care doctors and shortage of equipment are main reasons why they are hardly involved in diagnostics and treatments. Many patients are referred to the 'narrow specialists' (specialists with a primary care role) in the polyclinics or hospitals. The system as a whole is highly inefficient and labourious.

§ 1.2.3 Financing and benefits

Health care is mainly funded from taxes, collected both nationally and locally. Although full coverage to the whole population is guaranteed by law, the current situation has created inequalities. For instance, economically more disadvantaged regions cannot always collect enough tax money to meet the obligations for health care; this may result in unofficial waiting lists and other ways of rationing. Other inequalities result from the fact that managers of hospitals and polyclinics try to supplement their budgets with additional funds by means of service contracts with local companies. Managers who are more successful in these attempts can offer better services than those who are in less favourable conditions. A final source of inequality is an informal mode of out-of-pocket payment: the traditional 'gratitude' payment which is still a reality as it has always been and an indispensable source of income for doctors.

An obligatory social health insurance system has been considered in the early nineties and later in 1997. It was expected to bring more resources in the system - because it more relied on contributions of employers - and, by the introduction of a third party payer, increase the efficiency. In the parliament, however, these proposals were not accepted. It was thought to violate the constitutional right of full coverage to the entire population. At present it is unlikely that proposals will be implemented that attack the principle of universal coverage or restrict the package of services, that break with the tax base of health care financing or that introduce co-payments. A voluntary health insurance is indeed possible

nowadays but only for additional - luxurious - services. However, such schemes are still rarely used.

The principles of full coverage and free provision imply that citizens can claim practically all services available from the state health care facilities, with a few exceptions, such as spectacle lenses, cosmetic treatments, certain preventive examinations, dentures and pharmaceuticals prescribed in outpatient care. Exceptions to these exceptions, however, are those belonging to frail groups (people with certain chronic illnesses, war veterans, pregnant women and children) which are not subject to any financial charge. It is remarkable that, normally, people need to pay for pharmaceuticals prescribed in outpatient care. These charges are a threat to patients' compliance with a treatment and they encourage patients to insist on hospital admission, where all drugs are free.

§ 1.2.4 Medical education and career

Medical education, controlled by the Ministry of Health, is thorough but old-fashioned. Students become familiar with disease patterns and clinical knowledge. However, there is a lack of medical technology and medical books. Already in the undergraduate programme the students specialise either in paediatrics or in surgery or in internal medicine. After graduation doctors start working as generalists. After 5 years they can be assessed, the so-called attestation, and admitted to specialisation. This voluntary attestation can be applied every 5 years and the outcome heavily depends on the judgement of the chief doctor. The curriculum, as it is dominated by specialties, pays no attention to communication skills and dealing with non-medical aspects and psycho-social problems. Although, in principle, access to medical education is free, growing numbers of students pay for their study.

1.3 Krupitsa: cradle of the project

In Krupitsa, a village of about 3500 inhabitants at 30 kilometres from the city of Minsk, a modern health centre has been created as a result of a twinning project. In the years 1991-1996 volunteers from Krupitsa, Spelle (Germany) and Markelo (the Netherlands), with the help of external experts and supported by funds from the EU/TACIS programme have created this model practice. The objective was to improve the health care situation by building a new health centre and supporting the medical staff on introducing primary health care with general practice as a key element. The health centre, called 'Domus Medica Krupitsa', was opened June 1st 1996 with medical personnel trained in western Europe. Since the opening of the centre steps were made to introduce elements of primary care, such as out of hours care by the family doctors, a family planning programme and the provision of minor surgery. An evaluation of the project showed satisfaction among the population; two-thirds of the respondents in a survey answered that the health care was improved since the opening of the centre (ref). As the health centre formally is a regular health facility, the Regional Health Care Authorities of the Minsk region were also involved.

All those involved agreed that this little health centre deserved to be further developed and followed on a larger scale. At the same time, however, one was aware that this would be beyond the scope and possibilities of volunteers-based twinning. Nivel, then, was approached to continue this initiative by designing a larger scope project on the basis of the experiences in Krupitsa and acquiring the

necessary funding for such a project. This resulted in the project that is reported here.

1.4 Relevance to the programme 'Matra'

Matra, the programme of the Dutch government from which this project has been funded, subsidises projects in Central and Eastern Europe aiming at contributions, particularly at grassroot level, to the process of societal transformation. Activities are supported that stimulate change of the role of the state and state institutions and develop organisations of citizens and their interrelations. A secondary aim of Matra is to establish stronger bi-lateral relationships between The Netherlands and the countries in transition and foster European integration. Health care is one of the 12 qualifying themes of the Matra programme, including issues like health system reform, growing health awareness in the population, primary care development, ambulatory mental health and patient rights. With a focus on primary care providers in rural practices in the Minsk region, the relevance of this project is evident. But we think there is more than just that. Health care, and especially primary care, is a basic service that should be available to the population in sufficient quality and quantity. This is currently not the case in Belarus. In addition to the service aspect, this project tries to improve the quality of care and the motivation of providers by stimulating independent organisations of professionals (such as general practitioners). These organisations are more flexible and open to what international organisations can offer, and thus are more able to modernise the profession. The use of evidence, i.e. from newly implemented research, is a part of this activity. A third Matra relevance is in the aim to increase the health awareness of the population. This awareness has been low, resulting in seeking professional help with health problems that could be dealt with by self care and little knowledge about healthy life style. In the project GPs learned to give more systematic advice and patient folders have been produced for a number of frequently occurring minor conditions. Furthermore, in the evaluation of the project a survey on the patients' opinion about the services of their GP has played a major role. This is new in a country where individual opinions of users have long been neglected.

2. Themes of the project

Clearly, the reform process in the Belarus health care was not well advanced in the time when this project started. Plans had been considered but were rejected again and little had come to the stage of implementation. As a result of the growing need to do anything to improve the efficiency and effectiveness in health care, however, policy is changing now gradually. This process is supported by bi-lateral programmes and international assistance, such as from the World Health Organisation. Although details are not yet agreed upon, the awareness is growing that improvement can be achieved by developing a system which is based on primary care. From foreign examples and experiences in pilot areas, there is an interest now in implementing family medicine, in the expectation that well-trained family doctors, embedded in a structure with other primary care disciplines such as home care nursing, can reduce the current unnecessary medical consumption in the specialist and hospital sector. But from a Belarus point of view, a few years ago, it was still not well thinkable that family doctors, particularly those in cities, would treat patients of all age groups and both sexes, differentiating between a wide range of medical and non-medical problems and dealing with the vast majority of health problems presented by their patients. Home nursing care, which got a first introduction by the project which is described in this report, will certainly need to be part of the future primary care system.

On the basis of the experiences in the Krupitsa project and health care project in other countries in central and Eastern Europe, and having in mind the needs and possibilities in the Belarusian health care, Dutch experts and local counterparts together identified the following themes and issues that were considered to relevant to be addressed by the project.

2.1 Developing a model for primary care provision

A clear model for primary care in the future was not yet identified by the authorities. This was perceived as an important obstacle for further steps in health care reform, such as the implementation of family medicine in the context of primary care. It was important for physicians to know how primary care would look like and what would be their perspective. Making this choice, even if it were provisional, would be a condition for activities on education and experiments on provision of care. It could also take away reluctance among providers and regional and local health authorities. Other disciplines also need to be part in primary care, such as home nursing care and forms of social work.

2.2 Private practice

Independently working health care providers might be an option for the future, but for the time being it is no policy aim. Regulation in this respect is missing. It could be worthwhile, however, to fill the information gap on independent practice and to explore and demonstrate possibilities for the future.

2.3 Legislation, regulation and management techniques

The implementation of policy decisions was severely hampered by lack of proper regulations. Available resources could be much more efficiently used if modern

health care management techniques would be used. Also at practice level a lack of knowledge and management skills was evident.

2.4 Non-state organisations

Traditionally, state authorities at different levels are dominant in all aspects of health care. In the future, responsibilities should be shared or more delegated to organisations that can be partners in health care. Organisations of professionals could play more important roles in the future in education and training, in defining what should belong to the domain of the family doctor (the official job description), in organising activities for quality improvement and in contributing to re-certification procedures. Doctors in Belarus are still weakly organised and the professional identity was not well developed.

2.5 Quality of care

Improving the quality of the services and expanding the skills and competence of doctors and other providers was an important condition in the strengthening of primary care. Top-down approaches in continuing medical education, such as the traditional lectures, should be supplemented by activities and initiatives at grass-root level. Scientific evidence should become a basis for more systematic efforts to improve the health care services.

2.6 Education and training

A postgraduate curriculum in Family Medicine should be developed and officially recognised; no doctor should be allowed to work as a family doctor without this postgraduate diploma. An academic chair in Family Medicine could stimulate both education and scientific research. For currently practising physicians, wanting to become family doctors, a shorter (part-time) retraining course should be developed. Similarly, a programme for home care nurses should be initiated.

2.7 Physicians' income and incentives

The motivation to become a district doctor was low, because of the very low salary, high workload and long working hours. In the region of Minsk alone, there were 60 vacancies for the position of district doctor. It would be reasonable to increase the income of doctors if, after a GP training, an increase of their range of services could be demonstrated.

The identification of these themes was the basis for the formulation of the project's objectives. The translation of objectives into concrete actions was based on evidence on effective change of individual behaviour of physicians and on implicit ideas on health policy and how quality assurance should be organised and embedded.

A starting point for the evaluation of the project is the specification of objectives and goals; other reference points for the evaluation are the intended methods and resources. These will be described in chapter 4. First, however, possibilities and problems of evaluating health reform projects will be addressed in chapter 3.

3. Evaluation of the project

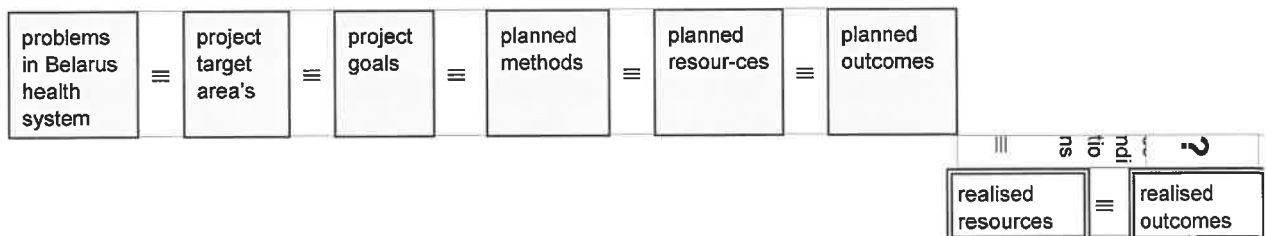
Programme evaluation is necessarily a compromise between methodological requirements of the evaluation and the needs and dynamics of activities to be implemented. This chapter is a detailed account of this compromise. It will start with a description of the logical framework of the evaluation: the successive steps between the formulation of the problem to be addressed via the application of resources to the realised outcomes. In this cycle it is crucial to clearly identify the starting point (what were the intended achievements), the intended inputs (resources, manpower) and the realised outcomes. Although provisions have been made to gather information on process and outcomes throughout the time of the project an ideal design cannot be realised. The evaluation is no aim in itself but instrumental to primary project aims. The dynamic of the project does not wait for the evaluator; for that reason, for instance, real pre-intervention measurements are not feasible. The attainment of intended outcomes cannot always be well measured by lack of proper instruments; second best approaches need to be applied. The description of the sources of information used for the evaluation of this project shows the efforts we have made to produce evidence for the evaluation.

3.1 Elements of a structured evaluation

Evidently, after expiration of the project it should be assessed to which extent the project has been successful. Evaluation serves as an account of the spending of (public) money, and shows whether the intended changes have taken place. Furthermore evaluation, if made publicly available, can contribute to gaining knowledge on the effectiveness of methods of health reform so that past mistakes can be avoided. Nevertheless, sound and systematic evaluations of health reform projects are no rule. Rigorous evaluation is not always required by the commissioning body and for the implementer it complicates the project and is an additional claim on the budget (not to speak of reluctance to allow competitors a look behind the scenes).

Basically, a systematic evaluation aims to describe and analyse a process step by step and judge its outcome on the basis of previously established criteria. The systematic comparison of what was planned and what was realised, implies that problems, goals, means to be deployed and expected conditions of the project are specified.

Figure: from problem to outcomes; elements in the project evaluation



The situation and problems of the Belarus health care system and the areas selected to be addressed in the project have been described in chapters 1 and 2 respectively. The project target areas and operational goals specify what this project intended to achieve

(see chapter 4). To provide criteria for the evaluation, these goals were formulated in measurable terms, as much as possible. The next two boxes, subject of chapter 5, refer to the planned approach: the intended methods and, more specifically, the resources planned to be deployed (in terms of equipment, training sessions, information etc.). Also the planned outcomes are described in chapter 5. The achievements of the project, both the realised resources and the realised outcomes, are reported in chapter 6, on the basis of various sources of information (these are described further on). Also external conditions of the project, mediating positively or negatively between planning and realisation, will be taken into account.

3.2 Provisions for the evaluation: our compromise

Any evaluation study in health care reform projects is a compromise between state-of-the-art and practicability and feasibility. The result of this balancing will be somewhere between an intuitive procedure with implicit goals and based on qualitative information on the one hand, and a formalised procedure with explicit and measurable criteria, controlled conditions and primarily based on quantitative information, on the other hand.

The evaluation procedure of this project can be positioned on this axis by taking a number of criteria into account (Grielen et al. 2000).

- Criteria for success: the project goals should be formulated before the start of the project in collaboration between experts and local partners and detailed enough to serve as evaluation criteria upon completion of the project. Goals should refer to outcomes, rather than to aspects of the process. Both quantitatively measurable criteria and subjective criteria should be taken into account.

As the chapters 4 and 5 will show, the project proposal contained enough detail on the basis of which success can be assessed. For each of the 6 target areas goals were specified beforehand in operational terms, the methods to be applied described and the outcomes mentioned. Furthermore in the month-by-month planning, resources to be implemented were listed. Some targets and outcomes were described very detailed, even with numbers to be achieved, while other were more general. With a time elapse of more than 3 years between formulation of the proposal and the end of the project, more details and more specification in this respect would not be realistic.

- Effect evaluation: the process of implementation of resources and the outcomes of the project should be well distinguishable.

Planned resources, methods and outcomes have been sufficiently separated in the proposal text. Nevertheless, in reality, it may be difficult to measure outcomes and assess the causality between the outcomes and the applied resources.

- Design and method: where possible a quasi experimental design should be preferred. Provisions should be made that relevant and reliable data can be collected before and after the intervention, both in the experimental group and the control group.

This requirement could certainly not be met with all goals in this project. The process of policy making, for instance, lacks the control necessary for such a design. Not in all areas repeated data collection is feasible. Apart from that, the collection of reliable data is logistically difficult in a foreign health care context. With the intervention in the GP practices, a crucial element of the project, a quasi-experimental design was foreseen and could be realised.

- Position of the evaluator: the project should be evaluated by someone who is in the position to make an independent judgement. If not external it should preferably be a semi-internal evaluator without major responsibilities for the implementation of the project.

This was not achieved. It would have absorbed a substantial part of the resources, which would not be acceptable by the financier of the project. Besides, it would have made the organisation much more complicated. The evaluation was carried out by two Dutch consultants and the local coordinator of the project who all had central positions in the implementation process. We have tried to reduce this disadvantage by using evidence as much as possible in the evaluation (for sources of evidence: see below), by explicit

routines of reporting during the time of the project, by having three authors for this report and by subjecting the draft text to internal peer review at Nivel. Yet, it must be admitted that external evaluators impossibly can be equally informed about the history and outcomes of the project as internal evaluators are.

3.3 Sources of information used for the evaluation

Probably the best basis for a solid evaluation is a variety of reliable information. Indeed, evidence from repeatedly collected quantitative data on a primary process is hard to deny, particularly if also available from a control group. Such methods, however, are not applicable to all project activities and they do not provide insight in all aspects of the project's achievements. So other information, though less firm and more open to subjectivity, is indispensable. From the beginning of the project, efforts have been made to keep records of the course of the project in order to produce accurate and detailed information both for monitoring progress and evaluation. But even then interpretation and, later, reconsideration may remain necessary. Single observations made during the time of the project may, at the end, lead to conclusions initially unforeseen. A routine of structured written reports and accounts favour the provision of complete and detailed information. Texts of presentations, proposals and publications are also useful sources, although their status may be disputed. A quite tangible product like a published article, for instance, can be seen both as an outcome and as an instrument or method in a process. For the evaluation of this project we used the following sources of information.

- The *project proposal* granted by the Dutch Ministry of Foreign Affairs. The proposal provides criteria to assess the success of the project: the aims, the planned methods (or: instruments) and resources and the planned outcomes.
- *Progress reports* every 6 months for the Dutch Foreign Ministry. In these reports progress is accounted for by the following sections: planned activities in the period; realised activities in the period; deviations from planning; interim evaluation of activities; recommended adaptation of the activity plan; financial report.
- Produced *publications and proposals*. Articles have been published on aims and activities of the project and, more specifically, on the GP guidelines that have been developed. At the occasion of conferences a few books have been published with project support. Proposals are policy papers describing options and consequences on issues like GP payment and pharmaceutical care.
- *Programmes and evaluations of study tours* give insight in the information and training efforts made during these trips and the appreciation by the participants.
- *Reports from peer review* sessions clarify in detail the group process in the development of professional guidelines
- The *data on GP-patient contacts* provides evidence on changes in the professional behaviour resulting from the project's intervention. This extensive data base, deliberately for the purpose of monitoring and evaluation, also contains data from the control group of GPs
- The *data on the self-reported task profile* of the GPs; this questionnaire was administered in the beginning and on completion of the project.
- *Data on the patients' evaluations* of GP services also in the beginning and on completion of the project (also in the control practices) show whether patients have perceived changes in these services.
- *Practice visitation reports*: at the end of the project GPs made mutual visitations with a pre-structured checklist.
- *Semi-structured interviews* have been held in the last month of the project with the local coordinator, GPs, and some other key persons involved in the implementation of the project.
- The *internal reports* made by Dutch and local experts. Normally, for each expert mission an agenda and a report were made. The agenda described the topics to be addressed

and the persons or locations to be visited. The mission report contained results of the activities, observations and the suggested way forward.

- *E-mail communications* with the local coordinator. If necessary, the local coordinator reported or informed by e-mail about developments occurring between the expert visits or asked for advice or information.

- Finally, there are personal *observations and conclusions* of the experts involved that help making a coherent evaluation on the basis of a wealth of information.

4. Objectives and operational goals

The **general aim** of this project, as put in the project proposal in Spring 1998, was to *'further elaborate and implement, both in quality and quantity, family medicine-based primary care in the Minsk region on the basis of what was achieved in Krupitsa. Supporting structures for education and training, quality improvement, professional development and research would be developed for future expansion of primary care to other regions.*

These general aims would be realised by means of the following **operational targets**. (The text of this chapter follows the text of the proposal; in brackets the short title of the targets to be used hereafter).

4.1 Establish a network of model practices (*'Model practices'*)

In 12 (semi-)rural practices all over the Minsk region doctors would be trained and equipped in order to be able to start working increasingly like family doctors, in the way it was introduced in Krupitsa. These practices were meant to be model practices for further expansion of primary care in the country and they could also become teaching practices for postgraduate trainees in family medicine. These doctors would form the core of the various activities of this project (also organisational aspects and peer review).

4.2 Develop a policy for primary care (*'PHC policy'*)

The aim was to produce a policy paper, to be adopted by major parties in health care, describing the desired and feasible model of (primary) health care provision in Belarus. Critical issues to be addressed in this paper should be:

- access to specialist care and a gate keeping role for family doctors
- patients to register with the family doctor of their choice (personal doctor system)
- the remuneration system for family doctors
- teamwork in primary care
- need for job descriptions for family doctors and home care nurses
- requirements for (re)certification of primary care providers
- possibilities and conditions for self-employed independent family doctors
- (future) role of non-state organisations.

The input or background to this paper should be a document describing the current situation in health care, the most urgent needs and problems, possible solutions and consequences and opinions of key persons and groups. The paper and the document should be the basis for publicity and information and an input to the political decision making on the official primary care policy. (Obviously, the planning and outcome of the political process are beyond the power of this project). The Regional Health Authorities of the Minsk region, and to a lesser extent the Ministry of Health, should be the major partners in this respect.

4.3 Make legal procedures and regulations (*'Regulations'*)

This is directly related to policy making. Policy measures, as mentioned above, cannot be implemented unless they are detailed and elaborated by means of regulations and properly described procedures with a legal basis. Examples are: referral procedures; remuneration of doctors; registration with a practice; job description; requirements and procedure for (re)-certification. Here also Regional Health Authorities and the Ministry of Health should be important counterparts.

4.4 Training of doctors and develop curricula (*'Training & education'*)

The introduction of family doctors and home care nursing would require activities in the following areas:

- training a group of doctors from the model practices and future trainers in family medicine
- developing a re-training programme for doctors currently practising in primary care
- the development of a postgraduate curriculum for family medicine (embedded in the Institute for Postgraduate Training)
- initiate a programme for continuing education and quality improvement in family medicine
- start developing a curriculum for home nursing care
- making available textbooks and teaching materials.

The current training programme would need further extension with more diagnostic and communication skills and techniques on dealing with vague complaints and non-medical problems. This training programme, carried out by the National Institute of Postgraduate Training, would serve as an input to the development of the postgraduate curriculum.

Supply of continuing medical education courses was inadequate. In addition to courses peer review in family practice should be introduced. The doctors of the model practices would be the first group to start with this method. This should result in the formulation of one or more Belarus professional guidelines in family medicine.

After identification of the role of the home care nurse (or community nurse), a preliminary new curriculum would be developed. Modern textbooks and teaching materials would be made available from project funds and text from foreign sources translated.

4.5 Information feed back, research and evaluation (*Information & research*)

Many data are routinely collected in Belarus, but most information is hardly used, and never fed back to providers of care. Information is crucial, however, for policy making, management at different levels, feed back on quality improvement activities, epidemiology and monitoring innovations. Research information should serve as an important instrument for developing the 'body of knowledge' of family medicine in Belarus.

At practice level priorities would be set on the type of data to be collected, taking into account feasibility and availability of software. Coordination of data collection and making analyses and feed back reports would be centralised (see below). After these conditions had been realised, uniform (computerised) data collection could be realised in the model practices.

4.6 Improve the organisational infrastructure ('Institutional development')

The aim was to improve the institutional structure for health care in three areas: training and education, professional organisation and research and development.

- Training & Education

The aim was to establish an academic chair in family medicine at the Medical University in Minsk. Experience from other countries learned that this position should preferably be held by a family doctor, rather than someone with a specialist background.

- Professional organisation of family physicians

This organisation to be established could be part or member of the Belarus Medical Association and would eventually represent the 6000 primary care physicians (later to become general practitioners - GPs) in the country. The organisation, with regional and local branches, should be involved in the organisation of quality improvement, procedures for re-certification and defending the material interests of family physicians. Certain tasks could be delegated from the Ministry to this organisation. The most appropriate legal

status should be decided upon, taking into account the possibilities in the Belarus legal system.

- Research & Development

Here the aim was to establish a centralised facility or centre of expertise for the coordination of data collection and analysis and reporting the results. This could be combined with a library and documentation function. Since various parties in health care can be potential clients of this centre, it should preferably be independent. Otherwise the R&D centre could be part of an existing institution (for instance the Postgraduate Training Institute in Minsk).

The general strategy on institutional development would primarily focus on the regional level, with possibilities to expand later to the whole country. At the end of the project the structures should be operational in the Minsk region; opportunities for expansion can be explored in the consolidation phase of the project.

5. The planned programme

This chapter is a further specification of how the target areas in the project were intended to be dealt with, what resources would be applied and what outcomes should result from it. This specification, derived from the original project plan, will be a major reference for the evaluation. Firstly, the planned methods, in terms of the kind of activities to be implemented, and the expected outcomes, as much as possible in measurable form, will be described per target area. Then, the planned resources, such as trainings, meetings, materials and reports, will be listed. A distinction between resources and outcomes is a bit arbitrary in this context; a policy paper or the provision of equipment, for instance, can be seen as a (measurable) outcome of the project, but at the same time as a resource to a higher level outcome (e.g. higher quality of care). Another point is, that the use of the project plan as the only benchmark in the evaluation could have the disadvantage of being too rigid. The intended achievements have been specified in this plan almost a year before the effective start of the project and thus the dynamics 'underway' could not be taken into account. We prefer to use a model of evaluation that takes such possible changes into account. Information from the interviews with persons involved in various activities in the project is meant to fill this possible gap and do justice to changes of accents in the goal attainment and in the conditions during the course of the project.

5.1 Planned methods and outcomes per project target

The planned methods are not completely different for the various target areas. Training, transfer of information and trying to achieve a common opinion, are frequently planned methods in more than one area. The expected outcomes are much more specific and described in measurable terms if possible. This approach allows an easy assessment of achievements, but less measurable outcomes can remain underexposed.

Target: Model practices

Planned methods	Expected outcome
<ul style="list-style-type: none"> - Training in family medicine - Improving practice equipment - Training practice management skills - Coaching and feed back - Identifying needs for home care nursing - Participation in training and policy activities 	<ul style="list-style-type: none"> - Network of 12 family practices - Higher quality of aspects of care - Lower referral rate; wider range of diagnostic and curative services - Patients and doctors more satisfied - Possibilities for home care nursing identified

Target: PHC policy and regulations

Planned methods	Expected outcome
<ul style="list-style-type: none"> - Transfer of information - Exchange of opinions/ideas - Interviews with key persons - Finding agreement/consensus - Learning foreign experiences - Technical support 	<ul style="list-style-type: none"> - Inception report / background document - (Draft) PHC policy document - Blueprints of payment system and referral system (to be tested later in model practices) - Draft job description - Draft procedure for (re)certification

Target: Training & education

Planned methods	Expected outcome
<ul style="list-style-type: none"> - NL training in Family Medicine/General Practice - Peer review training sessions ¹⁾ - Teaching materials and textbooks - Information/documentation on curriculum on Family Medicine - Learning foreign experiences 	<ul style="list-style-type: none"> - 12 trained family doctors - Postgraduate curriculum in Family Medicine/General Practice; and start of the re- training - Belarus peer review group in Family Medicine/ General Practice. - One or more guidelines ²⁾ developed and published - 4 nurses acquainted with home care nursing - Preliminary new training programme for home care nurses

¹⁾ Peer review is a method of quality improvement in which (local) groups of 10-15 doctors systematically discuss self selected topics which are relevant and/or problematic in their daily practice. The group aims at finding a consensus on standards of 'good practice' in these issues, if necessary, helped by scientific evidence. Each doctor tries to implement these standards in the daily work and progress is monitored by means of collected information on the subject. In the group, doctors give each other feed back on improvements made.

²⁾ Guidelines are (officially published) standards of good practice, based on evidence, on which the forum of a profession has found consensus; from time to time they may be revised on the basis of new evidence or insights.

Target: Information & research

Planned methods	Expected outcome
<ul style="list-style-type: none"> - Transfer of information - Inventory of information needs and availability of data - Application of hard- and software - Training in research techniques (in NL) - Analysing collected data - Technical support 	<ul style="list-style-type: none"> - Description of priorities and plan of action - Data collection in 12 practices - Researcher trained - Creation of central R&D facility - Report / feed back of results of practice registration ¹⁾

¹⁾ Practice registration in this context is a routine collection, during a period of time, of data on all patient contacts that doctors in the selected practices have. These data concern: the health problems that patients present, diagnostic procedures applied, diagnose made, drug prescriptions, possible referral, treatment and follow up of the disease.

Target: Institutional development

Planned methods	Expected outcome
<ul style="list-style-type: none"> - Transfer of information - Learning foreign experiences (e.g. from Estonia) - Finding agreement - Technical support 	<ul style="list-style-type: none"> - Establishing an Academic Chair in Family Medicine - Regional organisation (e.g. association) for family physicians - Coordinating facility for R&D in primary health care

Additional target (instrumental): Project management and facilitation

Planned methods	Expected outcome
<ul style="list-style-type: none"> - Coordination meetings - Tuning of persons and activities - Logistic support - Contacts with Matra authorities and local authorities 	<ul style="list-style-type: none"> - Optimally running of the project - Formulation of obstacles, needs and targets during the project - Publicity / dissemination plan - Progress- and final reports

5.2 Planned resources

The table below is a listing of resources as foreseen in the project plan. They follow straight from the planned methods as described in the former section and have been grouped according to the type of activity. Number in the scheme (4x, 2x etc.) Refer to the number of activities.

<p>Training sessions & workshops</p>	<ul style="list-style-type: none"> - 4x information & research (incl. role R&D centre) - 4x GP peer review / skills training / guidelines / consolidation / publication - 2x policy development & regulations - 2x institutional development - 1x practice management (in model practices) - language course (English) (preparation for study tour) - 1x needs & options (equipment; policy options; obstacles) - 3x practice registration (pre-intervention and 2 post- intervention assessments) and population satisfaction
<p>Foreign study tours</p>	<ul style="list-style-type: none"> - 1x NL health care, policy, regulations (6 key persons authorities and teaching; 8 days) - 1x family medicine in NL (12 GPs/2 teachers Postgrad.Inst./ 3 weeks) - 1x NL home care nursing (4 nurses; 2 weeks) - 1x NL research training (12 days; use of data collected in project)
<p>Conferences</p>	<ul style="list-style-type: none"> - 1 working conference on PHC options (exchange of views) - 1 national conference on PHC in the future

Equipment	<ul style="list-style-type: none"> - GP practice equipment in model practices - computers/printers in model practices - instruction materials and books for Postgraduate Institute
Institutional support	<ul style="list-style-type: none"> - 1 meeting on establishment of Association of Family Physicians - 1 meeting on preparation Academic Chair of Family Medicine - 2 sessions on R&D support facility (hard/software; books; continuity; research programme)
Progress and continuity	<ul style="list-style-type: none"> - 1x visit progress and troubleshooting (model practices) - 2 consolidation meetings - distant monitoring (continuous by e-mail and telephone) - feed back on registration by GPs (repeatedly) - feed back on continuity / expansion document - reporting of expert visits
Coordination	<ul style="list-style-type: none"> - 3 meetings (introduction and recruitment; planning and monitoring; selection of locations; research)

Financial	<ul style="list-style-type: none"> - Human resources - Purchases/mat./services - Operational costs - Training/courses - Contingencies <p><i>Total budget</i></p>	<p>NLG 230.575,- (□ 104.630,-) NLG 92.000,- (□ 41.748,-) NLG 30.900,- (□ 14.022,-) NLG 197.900,- (□ 89.803,-) NLG 27.500,- (□ 12.480,-)</p> <p><i>NLG 578.875,- (□ 262.683,-)</i></p>
-----------	---	---

6. Account of realised events and purchased equipment

The focus of this first evaluative chapter will be on elements of the project process: a description of activities that have taken place and equipment that has been purchased. As far as information is available, evaluations will be added as well. This chapter will start with an comparative overview of planned and realised project events: expert missions, meetings and workshops, study tours and conferences. Also unplanned events will be listed. Subsequently, the study tours will be described and evaluated. Then, purchased GP equipment and computers will be specified, and the instruction materials for the Institute of Postgraduate Training. The chapter will be rounded off with conclusions.

6.1 Realised expert missions and events overall

Since the Dutch experts in this project covered more than one subject, expert missions were usually devoted to more than one target area. Apart from that, it was sometimes difficult to allocate a particular meeting or workshop to only one subject. For instance the GPs in the peer group have developed guidelines, amended policy proposals to the Ministry, and discussed tasks of the newly established Association of GPs. Against this background the table below should be read; sometimes the allocation of meetings to the subjects was somewhat arbitrary.

Table: Comparison of planned and realised missions and other project events

Events	realised	planned
Expert missions to Belarus (number)	28	25
Conferences in Belarus	3	2
Study tours abroad for Belarus participants	5	4
Meetings/sessions/workshops: Total number	52	27
Per subject ¹⁾ :		
- information and research	6	4
- peer review, guidelines (incl. publications)	7	4
- policy and regulation	6	2
- institutional development GP Association	6	2
- institutional development Academic Chair on GP	2	2
- institutional development research facility	4	2
- GP practice management skills	3	1
- identification of needs in model practices	3	1
- implementation GP practice registrations	4	3
- coordination and management	6	4
- consolidation of project achievements	5	2
Unplanned project events (also after the end of the project):		
- GP peer group meetings without NL expert (several in 2000 and 2001)		
- Project presentation at Moscow Primary Care conference (February 2000)		
- Proposal Rockefeller Foundation for research capacity (submitted June 2000; refused)		
- Community nursing study tour to Lithuania (October 2000)		
- Contract for cooperation between Institute for Postgraduate Training and Nivel		
- Contributions/presentation WHO conference St. Peterburg Initiative (Minsk, October 2000)		
- Mutual practice visitation by GPs of peer group (November/December 2000)		
- Board meetings of Association of GPs (several since April 2001)		
- Matra proposal for continued project (submitted March 2001)		
- Poster presentation at EUPHA Conference (Brussels, December 2001)		

¹⁾ estimation; sometimes it was arbitrary to allocate a meeting to one subject.

The table evidently shows that, in every respect, the number of realised activities exceed those planned. Without additional financial means, more missions than foreseen could be

made, more conferences and much more workshops and meetings. Even one more - short and nearby - study tour could be organised. This has been possible due to an efficient management of resources, but primarily it has been the reflexion of a project-wide devotion and a demand for 'more'. Most of the unplanned events followed from successfully implemented planned activities: self-initiated activities by GPs, invitations for conference presentations, a contract for enduring collaboration and proposals for continued projects. We conclude that this quantitative overview points to a successful implementation of the programme with durable elements.

6.2 Five study tours

Five study tours have been realised, one more than intended. A one-week trip was organised for Belarus counterparts in policy making and management; a three-weeks trip was organised for the core group of GPs involved in various project activities and one GP teacher; two shorter trips, to the Netherlands and Lithuania respectively, with four participants from education and management dealt with home care and community nursing; finally, there was a two-weeks research training for the local coordinator of the project.

The content of the study trips and available outcomes will be briefly described. Two trips have been evaluated formally by means of a form. From the other trips other outcome information will be presented.

§ 6.2.1 Study tour 'Health care policy and management'

There were 6 participants of this study tour, policy makers and managers from the Minsk Regional Health Authorities, the Ministry of Health and the Institute for Postgraduate Training in Medicine. The trip to the Netherlands took place from 15-22 November 1998. The programme consisted of the following parts:

1. Information and discussion meetings on:
 - Introduction to the Netherlands and the Dutch health care system
 - Structure and organisation of primary care (2 sessions)
 - Training and education of GPs in the Netherlands
 - Position and role of the GP in the Netherlands
2. Visit to a health centre in Almere and discussion on following themes:
 - Cooperation and coordination of care between disciplines and professionals
 - Managing the practice and the patient workload
3. Visit to Dutch College of GPs (NHG) in Utrecht; themes:
 - Role of the NHG
 - Importance of scientific development in general practice
 - Professional guidelines
4. Visit to the village of Markelo, with:
 - Reception by mayor and aldermen
 - GP practice visit with discussion
 - Visit to local nursing home
 - Visit to Holten medical centre (also: quality improvement in provision of medicines)
 - Visit to home care organisation
5. Visit to a hospital (Mesos, location Overvecht, Utrecht) themes:
 - Communication between hospital and GPs
 - Cooperation between primary and secondary care in 'transmural care' projects
6. Visit to rural home care organisation 'Vitras' in Lopik; themes:
 - Organisation of home care
 - Community health services in a rural setting
 - Experiences of Vitras in a home care project in Romania
7. Visit to 'GG&GD' Utrecht; theme:
 - Organisation and tasks of the public health services in the city of Utrecht
8. Closing meeting: conclusions, lessons learnt and applicability of experiences.

The programme was highly appreciated by the participants. The progress report stated, that ..'The group has been very active during this study visit and continuously tried to draw lessons for the Belarus health care from what they learned in the Netherlands. The visit

not only established a firm commitment to the project, the discussions during this visit also have further clarified, both from Belarus and Dutch side, how we could proceed best to realize the aims of the project and what was expected from each participant.'

By way of evaluation, the group formulated a number of observations and recommendations for reforms in Belarus. After their return they have reported these points to the Ministry of Health and the Minsk Regional Health Authorities. The report addressed the following issues:

- *General Practice*. The future postgraduate training programme for GPs should be compulsory and take 2 years, with traineeships in approved primary care practices and in Accident&Emergency departments of hospitals. Practical training should be alternated with theoretical courses and feed back. Much more attention need to be paid to psychosocial care and communication between doctor and patient. A special Department of General Practice (or: Family Medicine) needs to be developed in the Institute for Postgraduate Training.
- *Home care nursing*. Home care is an important primary care task and home care nursing should become a new discipline in Belarus. Orientation on tasks and education of this profession is needed. An experiment with home nurses should be initiated.
- *Practice assistant and practice nurse*. Practice management should include the delegation of tasks from the doctor to trained practice assistants and practice nurses. An orientation on tasks and educational needs should be a first step. The draft of a training programme can be produced in the context of the project. There are preventive and follow-up tasks (particularly with chronically ill and the elderly) to be delegated to practice nurses.
- *Cervical smears*. GPs could play a major role in cervical cancer screening in Belarus. More information is needed about Dutch practice (frequency; age groups at risk etc.).
- *Journal for general practitioners*. There is a need for written information on family medicine both to (future) GPs and other groups. The best way to start is to try to get a section on family practice in an existing and well circulated medical journal in Belarus.
- *Association of GPs*. The Ministry of Health should approve the establishment of an independent association of general practitioners, with the following tasks: the promotion of the concepts of Family Medicine in the context of a coherent structure of Primary Care; support of practice-based scientific research in GP/FM; the coordination of quality improvement activities. The association should seek the membership of international organisations.
- *Dental care*. Possibilities to start a caries prevention programme in schools should be investigated.

§ 6.2.2 Study tour 'General Practice'

From 18 January - 5 February 1999, one GP teacher from the Institute of Postgraduate Training and 13 GPs from the 10 model practices in the Minsk region visited the Netherlands for an extensive programme of information, skills training and practice visits. The written evaluation has been summarised in the table.

Parts of the programme	average appreciation ¹⁾	
	content	presentation
Introduction to Dutch health care	5,0	5,0
Communication trainings	4,6	4,5
Skills Lab training	5,0	5,0
Practice- and time management	4,6	4,6
Quality assurance in everyday practice	4,3	4,4

Home care in the Netherlands		4,2	4,1
Critical reading for GPs		4,2	4,3
Family planning / contraception		4,8	4,8
Half-way evaluation		4,3	4,4
Clinical epidemiology for GPs		4,4	4,4
IUD insertion instruction		4,9	
Sexology in general practice		4,4	4,5
Visit of health centre		4,4	
Home visits with community nurses		4,5	
'Equipment budgeting' meeting		4,4	
Meetings on report preparation		4,6	
Introduction and distribution of equipment		4,4	
Visit GP Fair Rotterdam		5,0	
Other aspects			
Hotel accomodation	Utrecht Maastricht	4,2 4,4	
Organisation of transport		4,6	
Joint meals etc.		4,9	
Financial conditions		4,6	
Social programme		4,9	
Time for your own		4,5	
Social atmosphere		4,6	
General organisation of the programme		4,9	
Treatment in general		4,9	

¹⁾ maximum score is 5.0 (very good or positive); minimum is 1.0 (very bad or negative)

This three weeks trip has been a major project event and an important impetus to changes in the GPs' working style. The training of practical skills during the study visit has had a follow-up later during the sessions of the peer group in Belarus. The visit has been very successful, which not only appeared from the evaluation at the end of the visit, but also later on, during the sessions and activities of the group in Belarus. In their report of the study tour a number targets and desired effects were formulated as compared to the current situation:

- The GP's provision of a broader range of services in the practice
- More services to chronically ill in their homes
- More and better services in the weekends and evenings in the rural areas
- Less 'improper' tasks by GP (e.g. supply of permits and certificates and various useless routine administrative duties)
- Initiative to a better payment system for GPs
- More adequate (re-)training programme for GPs
- Start of the establishment of a GP Association

Furthermore the group produced a list of needs for the near future to allow the realisation of these aims and a specification of suggestions to the Health Care Authorities for the further implementation of the GP model in Belarus.

In the *interviews* at the end of the project GPs were asked again about this study tour. The quotes below reflect what GPs said about it.

Local coordinator: 'The study tour and training in The Netherlands has been very successful. A lot of attention was paid to the philosophy of family medicine and doctor-patient communication. We learned how to organise the practice and the work, setting goals and using resources efficiently.'

Doctor A: 'The Dutch study tour was as a light in the dark to me. Like all members of the group we had never been in western Europe before. Everything was new. They did not simply show us examples to follow, but there was such a fruitful exchange of ideas as well. We also learned a lot of skills that we use in our daily work. As a result of the study tour we became a real group, which was the basis for our work in the peer group.'

Doctor B: 'Our stay in The Netherlands gave me a broader perspective of general practice and how to implement it in this country. Also information on the health system context, such as the financing, was stimulating. The Maastricht skills training was helpful to improve our daily work.'

Doctor C: 'Increased self-activation, medical skills and clarification of the patient's problem have been my major benefits from the study tour. The information on the role of GPs in a health care system has provided me with insight in how the Belarus health care should develop and which steps are ahead. Unfortunately, due to language problems, we have not been able to work with a Dutch GP for a few days.'

Doctor D: 'The programme of the study tour was very compact. I could not imagine to work so intensively day after day. Indeed it absorbed a lot of energy, but it was certainly worth the effort. It has been a turning point in our practice, even to others who have not been in The Netherlands.'

Doctor E: 'The introduction to the Dutch health system showed that general practice was not just a concept but that it could be implemented as well. I also liked the practical skills, medical and communicational, that we learned.'

Doctor F: 'The study tour was a cultural acquaintance both with the Dutch society and health care. Eye openers were the importance of the relationship between GP and patients and the management of time.'

Doctor G: 'The practice-oriented GP training in the Netherlands and communication as an important tool in general practice were appealing elements in the study tour.'

§ 6.2.3 Two study tours 'Home nursing care'

The *first study tour, to the Netherlands*, was organised for 3 nursing teachers from the Institute of Postgraduate Training and 1 nursing manager from the Regional Health Authorities from 26 June - 7 July 2000. The formal evaluation has been summarised in the table below.

Parts of the programme	average appreciation ¹⁾	
	content	presentation
- Introduction to programme and NL health care	4,3	4,3
- Structure and organisation of primary care; learning points and tasks	4,3	4,3
- Visit to home care organisation: tasks of practice/ community nurse	4,3	3,8
- Home visits with community nurse and questions	5,0	4,8
- Training on the job for community nurses	4,3	4,3
- Reflection on experiences / learning points	5,0	5,0
- Use of CN protocols for practice and education	4,0	3,5
- Curriculum development for CN	4,0	4,0

- Training of communication skills in CN		5,0	5,0
- CN education methods		5,0	5,0
- Management in CN / Who are the clients		4,5	5,0
- Design/ implementation of a CN pilot in Belarus		4,8	4,8
Other aspects			
Accommodation	Amsterdam Deventer	4,3 5,0	
Organisation of transport		4,8	
Financial conditions		4,5	
Joint meals etc.		4,5	
Other social activities		4,8	
Time for your own		4,8	
Social atmosphere		4,8	
Organisation of the programme		4,5	
Treatment in general		4,3	

¹⁾ maximum score is 5.0 (very good or positive); minimum is 1.0 (very bad or negative)

With only two exceptions participants appreciated the elements of the programme as good or very good. This was in full agreement with the discussions held in the final meeting. Sufficient information, both from practice and education, was gained to make a first start with a curriculum for future community nurses in Belarus. Indeed, with much energy, such a provisional retraining programme was subsequently produced, and (as will be explained further on) a first group has completed the course before the end of the project.

Study trip to Lithuania

One year later, in October 2000 a short four days study trip was made to Lithuania. This neighbour country had recently started with the implementation of community nursing after a re-training programme was developed in the context of an EU/Phare project. The aim was that Belarus would benefit from this 'fresh' Lithuanian experiences. The trip was prepared by Dutch experts in collaboration with the local coordinator and funded from project resources. However, no Dutch expert has accompanied the group to Lithuania. The visit has provided the participants with insight in the content of the curriculum for community nurses in Lithuania and with the organisation and implementation of the programme. In the decentralised approach regional training centres offer the course to nurses in their area. A national centre is in charge of the overall coordination and professional and educational inputs. Participants were quite positive about the trip and expected that the established contacts could be helpful in a later stage as well.

§ 6.2.4 Training 'Research methods and statistical techniques

From 19-26 November 2000, the local coordinator of the project has been trained in the Netherlands by a personal tutor. The programme was tuned to the present level of knowledge and the needs and possibilities resulting from the practice data collected in the context of this project. The aim of this training was, firstly, to train in general research techniques like formulating the research questions and drawing up a research plan, and secondly, to explore the existing data set and to gain experience working with the statistical package SPSS. The local coordinator was selected for the training because he was preparing a Masters degree on the basis of these data. As a preparation to the training he had studied a manual on research methods and techniques. The focus of the

training was practical, which meant that the instructions started from the research questions of this project and the training of statistical techniques made use of the data collected in the Belarus practices. As a follow up, after the local coordinator continued his analyses back home, there has been continued contact by e-mail with the Dutch tutor. The training has resulted in working report containing a specification and operationalisation of research questions, a description of the data file, the analyses made for answering the research questions and a formulation of the next steps to make.

Although no formal evaluation has taken place, all involved agreed that it has been a fruitful and successful week. This was confirmed later, when the local coordinator showed to be able to make his own analyses with the data set for presentations to the Ministry of Health and a conference.

6.3 GP equipment for the model practices

Item	number	Item	number
Peakflow meter for children idem for adults	11. 11	Eye anesthetics (set)	2
ECG	3	Binocular magnifying glass	12
Height meter for adults idem for babies	1 3	Device for removal of foreign bodies from cornea	11
Swadding table	2	Fluorescine strips (set)	12
Stethoscope	6	Tendon hammer	8
Otoscope	11	Neurological pen torch	11
Electric torch	9	IUD set	12
Ophthalmoscope	12	Set of gyn. speculums	1
Tendon hammer	7	Small sterilizer	1
Blood/urine test strips (set)	10	Suture sets (2)	7
Ampoule case	8	Minor surgery set	9
Inhaler	10	Practice coagulator	10
Mouthpiece for respirator	8	Wart 'spoon'	10
Urine catheter	5	Practice lamp	11
Essential medicines (set)	1	Anoscope speculum	12
Otoscope	11	Hemoglobinometer	9
Syringe	3	ESR test set	2
Hook (foreign body nose)	11	Blood glucose meter	8
Tuning fork	11	Urine test strips (set)	9
Nose speculum (compatible with otoscope)	11	Urine sediment centrifuge	1
Ophthalmoscope	11	Microscope	3
Snellen charts for children idem for adults	7 5	Alcohol dispenser	11
Eye tono meter	11	White coats (sets of 2)	13

The aim of supplying medical equipment was to enable GPs to provide a more comprehensive range of services to their patients, in line with the trainings during the study trip to The Netherlands and later during sessions of the peer group. The order list was compiled jointly by the GPs, regional authorities and the Dutch experts. Firstly, a minimum list of items of equipment was assembled, to be used as a checklist to identify the needs in each practice. Since most of the equipment was purchased in The Netherlands and was available at the time of the study tour, during this trip the GPs could be trained with their own equipment. This practicing has been followed up repeatedly later, during sessions of the peer group. After the end of the study trip each GP has taken his/her own package of equipment by bus back to Belarus. This simplified the transport and importation considerably. Used up consumables have been replenished when necessary.

The (tailor-made) white coats were not just appreciated as an improvement of the GPs' outfit, but also had a public relations effect for the project.

6.4 Computers in various settings

A total number of 12 computers has been purchased. Ten of these were reserved for the *model practices*; one for use by the local coordinator and one for the nursing department of the Institute of Postgraduate Training. With all PCs the usual office software and printers were included. Additional software for data management and statistical analyses was installed on the central project computer of the local coordinator.

The computers in the model practices were primarily meant for the routine recording of practice data in the 10 practices (13 GPs). As will be further explained in the next chapter, for this purpose available software has been adapted by a Belarus specialist. This specialist has introduced the computers and the programme with the users in two instruction sessions. Throughout the time of the project he also successfully operated as the trouble shooter for any computer problem in the - remote - practices. This has importantly contributed to a relatively smooth proceeding of the data collection.

The *central computer* has been the factotum of the project, used for the production of all kinds of documents in three languages, for intensive e-mail traffic between Belarus and The Netherlands, supplier of essential information from the internet and the computer for data handling and analyses.

Finally, one computer has been installed for the production of the provisional re-training course for *community nursing*, in the Institute of Postgraduate Training. This computer was not planned, but it was evident how helpful this machine could be in a poorly equipped environment. And it has come up to the expectations: before the end of the project a first group could be trained.

6.5 Instruction materials for the GP re-training course

The provision of instruction materials for the re-training course has been part of the aim to modernise the teaching methods at the Institute for Postgraduate Training. Particularly as a result of the study trip, where participants made acquaintance with the Skills Lab at Maastricht University, it was felt that opportunities for the practising of medical technical skills should be increased. The following items have been purchased and introduced.

- Training arm model (for infusions and injections)
- Spare parts for training arm (including artificial blood, vessels and skin)
- Skin jig
- Set of suture pads with stretchable epidermis
- Training ear model for ear flushing
- Diagnose trainer ear
- Diagnose trainer eye
- Various anatomical charts
- Overhead projector

- 2 instruction video tapes on communication in Russian under-titled. Indeed, after the materials were supplied, skills training has been incorporated as a regular element of the retraining programme. In the newly introduced evaluation of the course, it turned out to be one of the most appreciated subjects. Not all needs of the Postgraduate Institute could be satisfied by lack of resources. Among the remaining wishes was a video equipment for use in the the training of GPs' communication and conversation techniques and for the presentation of ready made instruction videos.

6.6 Premises and transport

Like so many facilities in the country, the premises of the participating practices showed many shortcomings due poor maintenance. Besides, there were defects with telephone connections and cars and lack of fuel, which seriously hampered the services to the patients in these remote practices. An inventory of things to be repaired or replaced, made with the GPs, was subsequently discussed with the Regional Authorities, who offered to pay the necessary improvements. The authorities have been quite cooperative, and, except in two practices the premises and transport facilities have been improved to a satisfactory level. Most practices now have a reliable jeep at their disposal. Three practices, housed in inadequate buildings without running water, were indicated to be moved. One of them indeed moved before the end of the project. In the other two provisional improvements have been made.

6.7 Project office equipment

For the facilitation of the project an office needed to be created. Apart from the computer and printer, already mentioned, there were a copier and an overhead projector as the most important purchases and the usual smaller office appliances.

6.8 Conclusions

The results described in this chapter consistently show a higher number of realised activities as compared to the planned programme. Although the exceeding was in all areas, they were particularly visible in the activities concerning the GP peer group, the erection and start of the GP Association and the consolidation and continuity of the project. The peer group has got involved in much more activities than just quality assurance and guideline development. Medical skills have been trained repeatedly; draft policy proposals have been discussed and commented; mutual visitation of practices has been organised. The start of the GP Association was more successful than expected, resulting in more work on management and administration and more services and activities for the membership. The increased efforts for consolidation and continuity are related to the success of the implementation of the programme. There was a need, both from Dutch and Belarus side, to continue.

The planned *study tours* have been organised, and even one more. The outcomes, in terms of the formal evaluations, the concluding papers and proposals and what participants told about it in the interviews, indicate that participants have been satisfied and that the study tours have met the expectations.

The same goes for the *research training*. The working paper produced during this training and the independently made analyses, made by the local coordinator in a later stage, are indications that it has been useful.

A lot of *equipment* for various purposes has been purchased and distributed. A careful inventory procedure tried to bring about that the purchases were need-driven as much as possible. The effectiveness of the equipment was enhanced by the organisation of training with the new equipment and, with the computers, the creation of a continuing help desk and assistance function. The contribution from Belarus side in the improvement of

premises and transport facilities in the practices, reflected the authorities' attitude of cooperation and their confidence in the outcomes of the project.

If these tangible project results are compared to the expected outcomes, as described in the former chapter, some conclusions can already be drawn about its realisation.

Concerning the *Model practices*: this network of 10 practices with 13 GPs indeed has been realised and the practices have been equipped for the programme.

Concerning *Training & education*: the study tour to the Netherlands has been an important element in the training of the 13 GPs. With these GPs an effective peer review group has been welded (outcomes of which will be described further on). The two study tours on home nursing care have made 3 nursing managers/teachers and one nurse, familiar with the educational and practical sides of the subject.

Concerning *Information & research* : the installation of computer facilities in the practices has created crucial conditions for the success of the data collection in the practices.

Furthermore, the Belarus researcher has indeed been trained. And the central computer with statistical software, email and internet facilities has been the local engine for research and information in the project; it is the starting point of a true R&D facility in the future.

Concerning the *project management* these outcomes are informative. The planned activities have been realised, and even more than that, without exceeding the limits of the budget. Also the 5 planned progress reports and this final report have been realised.

The formulation and submission of a proposal for a continued project is the result of many activities that focussed on dissemination and continuity.

7 General impact of the programme

Based on various sources, this and the following chapter will continue the understanding of the outcomes of the project. Some outcome measures concerning changes in the professional roles and services of the GPs are available from the practice registration. Possible changes in the patients' view of their GP and his or her services should emerge from a repeated data collection with use of the Quote instrument, which has directly measured the quality of care from the patient's perspective. Another important source of information are the interviews, held at the end of the project with participating GPs, teachers and policy makers. The interviews focussed both on the perceived general impact of the project and on the achievement of specific targets. This qualitative information is an indispensable supplement to the quantitative sources, which (necessarily) have a limited scope. Finally, for the description of the project's process the progress reports will be used that were made bi-annually for the Dutch Ministry of Foreign Affairs. These reports, structured by the project targets, provide a history of how the project has proceeded. The first section will deal with opinions of professionals directly involved in the project on its general impact. Then, some general results will be presented from the survey of the patient's evaluation of GP services.

7.1 Belarus counterparts on the project's general impact

The final interviews included questions about the general impact and the changes brought about by the project. This section deals with the answers given by representatives of the Ministry of Health, the Regional Health Authorities of the Minsk region, the Institute for Postgraduate Training in Medicine and individual GPs from the model practices.

! 7.1.1 Policy, management and teachers

Ministry (doctor M1): 'The project has been a small revolution during the past two years. Five years ago there were discussions; now, thanks to the models provided by the Matra project, information and experiences, primary care has become incorporated in our policy. The project has also confronted us with the many urgent problems that remain to be addressed. Unfortunately, we have to accept that the limits on change are imposed from outside health care, particularly from the economy. These limitations will need to be respected in how we are shaping our health services'.

Ministry (doctor M2): 'The project has convinced the Ministry that primary care development based on general practice is the way forward for Belarus. (Even the Ministry of Finance, that determines the yearly budget for Health, is in favour of this policy). The Krupitsa model had a strong advocating role in this process. The new tasks of GPs have been clarified both to the authorities and the GPs themselves. The government's intention to continue the way that the project started is well demonstrated by the new pilot initiatives in the Vitebsk region. The Vitebsk pilots are more than an extension of the primary care experiments; it is also a financial decentralisation with implications for the administrative relations. The Dutch support has been very useful and effective in the transformation of our health care system; this has also become evident in our contacts with our colleagues from the Russian Federation'.

Regional Authorities (doctor R1): 'The project has changed the working style of GPs in the Minsk region. Services are now more adapted to needs of the population; the range of services has broadened. On the initiative of the project new equipment could be purchased and we have invested in improvements of the premises and in the better cars and jeeps for the practices. These actions on improvement have not yet finished. The training programme for GPs is improved and better structured. We have developed a plan for GPs to be trained until 2007. A start has been made with a programme for community nurses. In addition to the model practices, the Regional Authorities are currently transforming 15 more practices to become GP practices; these are staffed with doctors who completed the new six months GP training programme. Our activities have drawn the attention and interest of the city authorities, who also want to start with general practice and primary care. They have notified to be happy to take part in a continued project'.

Institute for Postgraduate Training: (doctor P1): 'Many goals have been realised by the project, and the GP training programme is an important one. We are making the shift from teaching GPs to make the right diagnosis to teaching them to solve the patient's problem. Also the attitude of policy makers, managers and physicians concerning general practice is changing, as the Vitebsk conference recently demonstrated. Now we know much better what is feasible and what is not in the Belarus health

system; fund holding is not realistic, for instance. Challenges for the future will be to design general practice for the city context, to continue regulation and to reduce patients' passivity by health education'.

! 7.1.2 The participating GPs

Doctor A: 'The project has changed by style of work and the quality of my services. For instance, possibilities in treating problems of the ear and the eye and diagnostic blood testing have expanded. The guidelines that we developed, for instance on low back pain, have clarified how to deal with health problems that used to be 'difficult'. We have got more knowledge and skills for patient follow-up. The work has become more interesting and has opened new prospects'.

Doctor B: 'The project was a good start. We are now better in diagnostics and our approach is more comprehensive. We are more aware of family influences on patients and their problems. Our payment should have changed more, and our need for information is insatiable. Our professional horizon has widened: we discuss subjects that go beyond the day to day work, for instance costs of health services and the role of the GP in health care. Not everyone does understand this development'.

Doctor C: 'My contacts with the patients changed as a result of the communication training in the Netherlands. Myself as well as the patients like the new skills and new equipment that we acquired. More procedures can be done in the health centre, so that fewer patients need to be referred to the polyclinic, 40 kilometres away. With few cars in the village and only two busses per day, transport continues to be a major problem. As an answer to the higher workload, also because there is a vacancy in a neighbouring practice, I have introduced some rules in the practice so that the daily programme has been better scheduled'.

Doctor D: 'The project has been a revolution in this practice. Before the study tour my colleague and I worked in the same room and the patients had no privacy. Now we are working in separate rooms and there is no entrance without prior knocking. Patients have got used to changes in the organisation. They know when they can come in without appointments, how and when to call the practice, how to arrange home visits. This situation is more clear to both patients and GPs. The extension of services with otoscopy, ophthalmoscopy, measuring eye-pressure and minor surgery, has improved our image in the community. After a journalist visited the practice, the demand even increased more.

Doctor E: 'Our view of the patients has changed and vice versa. The relationship has become more personal. At present I feel more responsible; I only refer if my own possibilities are exhausted. I like this way of working better. It is more tuned to needs of the patients and less routine'.

Doctor F: 'My attitude towards the patients changed. Now there are more privacy and mutual trust. There have been many changes in the practice organisation. Tasks have been delegated to the feldcher. She now does patient triage, is more involved in care for chronic patients and does administration that used to be done by me. In the daytime patients can no longer call the ambulance service directly; the GP decides about ambulance orders. The tasks of the GP have grown (more neurology, minor surgery, ear-, eye-, nose- and throat problems). The referrals have become more effective, but the referral pattern will not be changed, because there are still many obligatory routine referrals (e.g. for check ups required for various certificates)'.

Doctor G: 'The project has changed my professional attitude. Now there is a drive to provide more services myself, and I have become able to do so. This has been quite positive. Unfortunately, we are confronted with a professional environment that has not yet passed this process of change. There is still too much paper work, too many pointless rules, too much bureaucracy'.

Doctor H: 'More has changed than just the range of my services. I lost the fear for adults that I had when I was still a pediatrician. I have discovered that it is more effective for a GP to give patients proper attention than having a yearly medical check up of the patient. My patience has grown. My consultations and conversations have become more systematic; health and other problems of the patients are no longer considered exclusively from a medical point of view'.

Local coordinator: 'General practice is much more widely known in Belarus: among doctors, teachers, Regional Authorities, the Ministry of Health and the population as well. Primary care is becoming a priority of policy makers. Interest is growing, also outside the Minsk region; for instance in the Vitebsk region and Gorodno region. The development of a training programme for GPs in the Institute for Postgraduate Medical Training has been an important start in establishing general practice. We are about the 'point of no return'. The lasting difficult situation of the national economy and the extreme scarcity of financial resources, however, are obstacles in the continuation of the process. As a more general effect of our activities can be mentioned that one has become more familiar with a rational

approach in solving problems and implementing policy changes. But although in general the project has been successful, many more things are only starting to move and numerous changes will need to follow'.

7.2 Effects on the patients

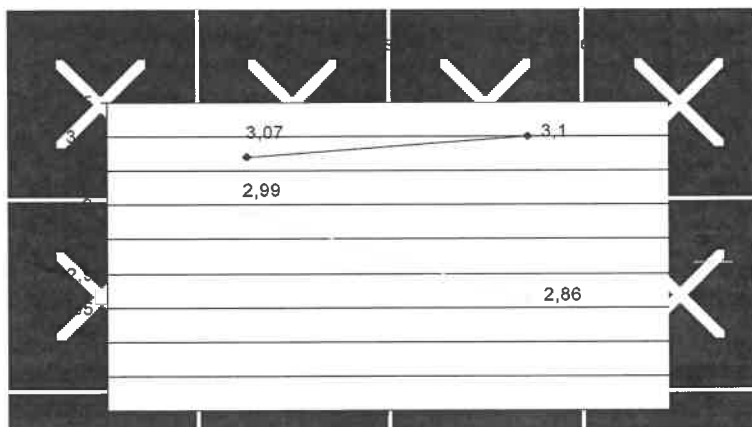
Although positive experiences and satisfaction among the participating GPs are important outcomes, effects of the intervention should also be perceived and appreciated by the patients. This effect on the patients, however, is slower or more delayed than the effect on the GPs. Firstly, effects of the intervention on the GP's working style will gradually proceed. Secondly, these changes only slowly influence the opinions of the patients. This section will deal with the patients' perspective in two ways. Firstly, results will be presented of a survey among patients that has been conducted two times in the course of the project, in the beginning and at the end. Secondly, there is information from the interviews on how the participating GPs have perceived the effect of changes on their patients.

7.2.1 Changes in the patients' experiences: the QUOTE study

In the Summer of 1999 and in February/March 2001 samples of patients visiting the model practices have been asked to fill in a questionnaire about their evaluation of the services of their GP. In the same way this survey has been carried out in the control practices. The questionnaire, a validated instrument called QUOTE, had been translated into Russian. The version of the QUOTE for GP services, which was used, contains two sets of 23 questions. The one set asks about the patient's perceived importance of a range of aspects of GP services. The other set asks how these aspects are currently evaluated by the patient. Topics of the questionnaire concern: having time and serious attention for the patient; giving information; influence for the patient on treatment and other decisions; accessibility, availability and continuity of care. Two questions in both sets, not relevant to the Belarus situation, have been deleted. More details on data collection and response of this survey have been described in section 8.1.6.

For the set of questions expressing the patients' evaluations, summary scores have been calculated for the samples of the experimental practices and the control practices, for 1999 and 2001. These aggregated evaluation measures have been represented in the diagram below.

Figure 7.1 Patients' evaluation of GP services in experimental and control practices in the beginning and at the end of the project



The diagram shows that, during the first measurement, patients from the experimental practices were more positive about the services of their GP than patients from the control practices. Presumably both groups of GPs were not similar in all respects. Indeed GPs participating in the programme have been selected on their motivation. With the second measurement patients from the experimental practices appeared to be equally or slightly more positive than in the beginning. In the control group a downward trend was visible. So, the discrepancy between both groups has increased in the time of the project.

This may reflect the worsening situation in this period, both in health care and, more general, the country's social and economic circumstances.

! 7.2.2 Effects on patients as perceived by the GPs

In the interviews the GPs were asked which changes they have observed with patients as a result of the project interventions, in particular related to possible changes in their working style.

Doctor A: 'The patients certainly have perceived changes. There is more privacy and we work more patient-centred. Our patients are more satisfied because the GP can provide more services than previously. Some patients now even ask for more than we can do in this practice'.

Doctor B: 'Patients are more satisfied because they no longer need to travel for a number of treatments that we can do now in this centre and because they are treated more respectfully. Patients also show better understanding of the practice and the GP. Unnecessary night visits, for instance, have reduced'.

Doctor C: Patients are more satisfied and sometimes even complimentary. They are more active, come more frequently (also for advice), and the contact is better. Indeed, the workload is higher now, but I like it better'.

Doctor D/Doctor E: 'Patients needed time to get used to the tighter practice management, but now it is widely appreciated and we are more popular than before'.

Doctor F: 'In the beginning some patients made difficulties, but now they are satisfied. They realise that they also benefit from our working more efficiently'.

Doctor G: 'Patients like the broader range of our services. It reduces their travelling to the district hospital. The increased continuity of care, one GP for both children and adults, is appreciated'.

Doctor H: 'My patients now present more varied problems because they know that I can deal with it. I am still a bit astonished that they appear to put their trust in me more than before. It is a contrast with the way they are treated by most specialists. I also try to coordinate, for instance, if patients are referred repeatedly from one specialist to another without proper information'.

7.3 Conclusions

Opinions about the general impact of the project were positive. Interviewees from various categories reported profound changes; a few even spoke about a revolution. At the Ministry it was perceived that primary care and general practice are now on the agenda and have been incorporated in health policy. The acceptance is reflected in the plans for expansion to the Vitebsk region. The interview with the local coordinator also confirmed that general practice is more widely known now in Belarus and that primary care has become a priority. The regional health care management was positive about the new - more patient directed - working style of GPs and the start made with community nursing. This model of primary care provision has drawn the attention of the Minsk city authorities. From the perspective of the teachers and educators, major merits of the project have been the implementation of the GP re-training programme and, more in general, the change in attitudes of policy makers, managers and practitioners involved. The participating GPs were quite positive about the general influence of the project. It had changed their working style; they were more satisfied with their work because it had become more interesting and better organised and they felt that the contact with the patients had improved.

According to the GPs, there was more privacy for the patients. After some time of adaptation they felt that patients liked the new situation. Directly measured with the patients, the general level of satisfaction appeared to be slightly improved in the experimental practice. Since the satisfaction of patients in the time of the project had clearly deteriorated in the control group, the result in the experimental group must be judged much more positively. It may be concluded from the interviews and the measurement of the patients' evaluation that the general impact of the project was appreciated positively.

8. Specific outcomes per project area

The project targets or areas, as they were described as the planned programme in chapter 5, will be evaluated one by one in this chapter on the basis of information from research, reports and interviews. The chapters will follow the order of topics of chapter 5 and subsequently deal with the specific outcomes on 'Model practices', 'PHC policy and regulations', 'Training and education', 'Information and research' and 'Institutional development'. The final section will draw conclusions.

8.1 Outcomes on 'Model practices'

The aims with respect to the model practices not only concerned the recruitment of the GPs and providing the proper equipment for the practices, but also changes in the GPs' work style and range of services and the satisfaction of both doctors and patients. So, in addition to the establishment of the network of GP practices, this section will deal with quality improvement of services, referrals from GPs to medical specialists, the adoption of a wider range of services by the GPs, and the satisfaction of GPs and patients. One aspect of the expansion of services in primary care are the first steps towards the introduction of home care nursing in primary care teams. The section will end with conclusions.

! 8.1.1 Creation of the practices network

In the beginning of the project individual recruitment interviews have been held with 23 GPs, preselected by the Regional Health Authorities. Apart from practical issues, criteria for selection have been the motivation of the physicians. Thirteen GPs from 10 practices were selected for participation in the project's activities. Chapter 6 has explained in detail what has been done, in terms of medical equipment, premises and transport and computer facilities, to improve the working conditions in these practices. With this group of GPs a programme of peer review, quality assurance and practice management has been successfully introduced, without any drop out. The group also participated in a three-weeks study trip to the Netherlands, also reported in the former chapter, and completed a newly developed retraining course for GPs in Minsk. Details of these subjects have been or will be reported in other sections of this report. Furthermore the model practices have also been the places where other project activities, for instance concerning the GP Association have been discussed and prepared, and they served as a sounding board for the policy activities, for instance on a new payment system for GPs.

From the interviews

In the *interview*, the local coordinator told about this field that ..'the planned activities have been implemented well: the education in family medicine and training of skills; the new equipment; continuous coaching and feed back in the peer review group. On home nursing care more has been done than the planned identification of needs. Concerning the outcomes, the network of experimental practices with 13 GPs has been very successfully established. Clearly, the quality of care in these practices has been improved. GPs are more aware of the guidelines developed in the peer review group, and they are much more satisfied now. Things that still need to be improved are the premises in three practices and the fact that some GPs have too many patients by lack of rural doctors. The obligatory, mostly administrative role of GPs in the provision of various certificates still need to be reduced. Outcomes for community nursing are positive: both policy makers and teachers have a good insight in what community nurses can do in primary care. This is a good basis for follow up. Special attention deserves the implementation of community nurses. The practices are not yet prepared for that'.

Doctor A:'The project has improved the working conditions in my practice considerably. The equipment is sufficient and now we have a car at our disposal. In one month time, when the new building will be ready, we can leave these old premises. That will be a major improvement, not only because we will have running water, but also because our services will be extended with dentistry and physiotherapy'.

Doctor B:'The equipment is up-to-date, but the premises still need repair and the centre is understaffed. By the computer we have got more information available for follow up of the patients. However, entering the data in the computer is still taking too much time.

Doctor D/Doctor E:'Since premises, equipment and transport are fine now, the desire to continue is growing, for instance with the reduction of the bureaucracy and all the obligatory paperwork.

! 8.1.2 GPs' referrals to specialists

It was expected that the project intervention would result in decreasing referral rates of the GPs in the experimental group. Skills training, peer review and feed back in the GP group would enable the GPs to treat conditions that they used to refer to specialists. Since the influence of the GP on referrals differs between types of encounters, a distinction has been made between patient contacts for curative purposes only, for preventive and/or administrative purposes and for a mix of these purposes. The procedure with preventive and administrative contacts is regulated and leaves little space for the GP to follow his or her own policy, while curative care provides more professional freedom.

Table 8.1: Referrals by experimental GPs in 5 half year periods
(percentage of patient encounters with a referral to a specialist)

Type of contacts	Half year periods					Total %
	99/1	99/2	00/1	00/2	01/1	
	%	%	%	%	%	
<u>all</u> purposes	3.3	4.0	3.0	3.5	2.8	3.4
<u>curative</u> contacts only	3.7	2.8	3.8	3.3	3.3	3.4
<u>mixed</u> contacts only (curative and admin./preventive)	2.3	3.3	1.6	4.5	1.6	2.5
<u>not curative</u> contacts only (administrative or preventive)	4.2	13.5	2.9	3.2	3.1	5.8
N (contacts) - all	18.281	16.963	18.298	11.969	9.600 ¹⁾	75.112
- curative+mixed	16.330	15.207	16.717	10.446	8.984	67.684

¹⁾ period 01/1 was only 4 months

Table 8.1 shows that the overall referral rate is low; 3.4 percent of all patient contacts ends up with a referral to a specialist. This percentage has been stable over the five periods. Where the referral rate is low much further reduction cannot be expected. Focussing on referrals with curative, mixed or preventive/administrative contacts only, does not change this result essentially. In period 99/2 the higher referral rate appears to be related to a much higher proportion of referrals with administrative/preventive contacts. The results in this table do not exclude any differences in the GPs' referral pattern, since differences in type of demand have not been controlled for. There is a possibility that the tendency of self-referral (patients who directly visit a specialist without being referred by a GP) has decreased, as a result of better services and changes in the practice organisation. This would have resulted in a higher patient demand.

The referrals should also be examined in the right perspective by comparing these with results of the control group of GPs. For this comparison we selected the patient contacts of the experimental GPs during the same three periods that the control GP kept records of their patient contacts. Results are presented in table 8.2.

Table 8.2: Referrals made by experimental GPs and control group GPs during 3 episodes
(percentage of patient encounters with a referral to a specialist)

Type of contacts	Group of GPs	Registration period				N contacts (1999 + 2000 + 2001 = total)
		1999 (% ref.)	2000 (% ref.)	2001 (% ref.)	All (% ref.)	
<u>all</u> purposes	- experim.	3.2	4.0	2.0	3.1	3005 + 3275 + 2817 = 9.097
	- control	19.8	15.8	14.1	17.5	9921 + 6722 + 3225 = 19.868
<u>curative+mixed</u> contacts only	- experim.	3.6	4.2	2.0	3.3	2293 + 2999 + 2673 = 7.965
	- control	19.5	15.8	14.1	17.3	9852 + 6706 + 3224 = 19.782

A striking observation from this table is the much lower referral rate in the experimental group than in the control group: 3.1% versus 17.5%. Excluding the contacts for preventive and administrative purposes does not make a difference. Like in the previous table, there is no obvious change over time. An important reason for the difference between both groups must be that the experimental GPs are not a randomly selected group; on the contrary they have been carefully selected on skills and motivation. So, it may be concluded that, from the beginning, both groups have not been well-matched. A secondary observation, which could not be clarified well, is the much higher number of contacts in the control group. We assume this to be the result of both under reporting in the experimental group and lower number of contacts by GPs in the experimental group due to more absence (i.e. for project activities).

! 8.1.3 GPs' prescriptions of medicines

It was expected that GPs would become more critical and rational in their prescriptions of medicines. On the one hand the aim was to achieve a more focussed prescription behaviour, resulting in a shift from general to more specific drugs. On the other hand, advice and dietary or other patient information could substitute certain drug prescriptions. Firstly, prescriptions of experimental GPs will be considered during the 5 half-year periods; then they will be compared with the control group; finally the proportion of specific medicines in the total volume will be considered.

Table 8.3: Medicine prescriptions by experimental GPs in 5 half year periods (percentage of patient encounters with one or more prescription)

Type of contacts	Half year periods					Total
	99/1	99/2	00/1	00/2	01/1	
	%	%	%	%	%	
<u>all</u> purposes	50.9	47.6	54.1	47.4	51.0	50.4
<u>curative+mixed</u> contacts only	55.8	52.4	58.0	53.6	53.5	54.9
<u>not curative</u> contacts only (administrative or preventive)	9.4	5.6	13.1	4.6	14.3	8.7
N (contacts) - all	18.281	16.963	18.298	11.969	9.600 ¹⁾	75.112
- curative+mixed	16.330	15.207	16.717	10.446	8.984	67.684

¹⁾ period 01/1 was only 4 months

With half of all patient contacts one or more medicine was prescribed. After excluding the purely preventive and/or administrative contacts this percentage is about 55%. These proportions appear to be stable in the course of the project.

In table 8.3 both groups of GPs have been compared. Here again, in the experimental group only contacts have been included during the three episodes of registration in the control group.

Table 8.4: Medicine prescriptions made by experimental GPs and control group GPs during 3 episodes (percentage of patient encounters with a medicine prescription)

Type of contacts	Group of GPs	Registration period				N contacts (1999 + 2000 + 2001 = total)
		1999 (% pr.)	2000 (%pr.)	2001 (% pr.)	All (%pr.)	
<u>all purposes</u>	- experim.	42.3	54.7	50.4	49.2	3005 + 3275 + 2817 = 9.097
	- control	61.2	78.4	71.6	68.7	9921 + 6722 + 3225 = 19.868
<u>curative+mixed contacts only</u>	- experim.	54.1	58.9	52.4	55.3	2293 + 2999 + 2673 = 7.965
	- control	61.6	78.6	71.7	69.0	9852 + 6706 + 3224 = 19.782

Like with referrals, the GPs of both groups are also quite dissimilar with respect to their prescribing medicines. Throughout the time of the project experimental GPs have about 20% less contacts with prescriptions than their colleagues in the control group. This is a very substantial difference. The expected reduction in the overall prescription rate in the experimental group cannot be established. Separate examination of contacts with a curative purpose shows an increase of the proportion of contacts with a prescription, particularly in the experimental group; however, it does not change the picture overall.

Additionally we made an analysis of medicine prescriptions in the experimental group, separately for specific and less specific drugs. The idea is that the attention the peer group paid to more rational and evidence-based prescribing would result in a shift from less specific to specific drugs. These two dimensions of prescribing have been identified by Mokkink (19...). Less specific drugs can be used with a broad spectrum of indications, are normally applied with less serious diseases or when the diagnosis is not (yet) evident. Examples of this category are: analgetics, antibiotics, antihistaminics, antirheumatics, corticosteroids, cough suppressants, tranquillizers and sedatives. The group of specific medicines consists of the following (in brackets the ATC codes):

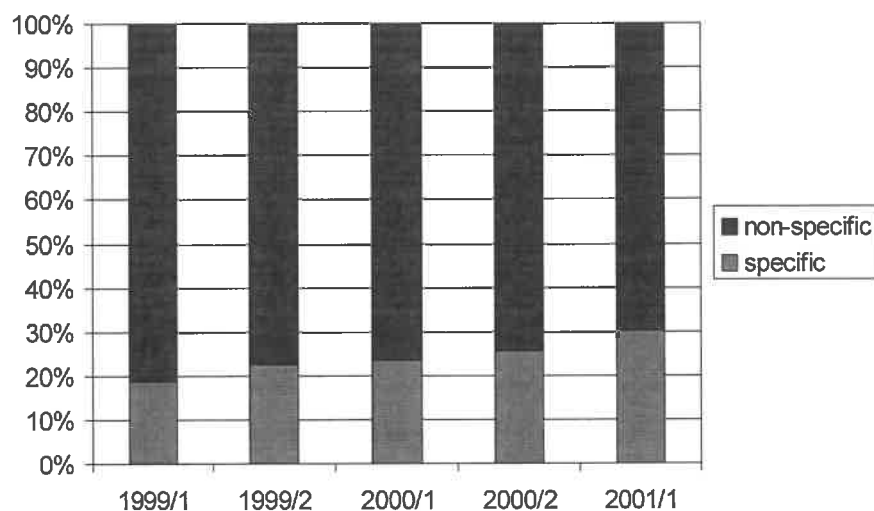
- Blood sugar lowering drugs (A10)
- Diuretics (C03)
- Anti-hypertensives (C02, C07)
- Angina pectoris drugs (C08, C09)
- Cardiac drugs (C01)
- Vasodilators (C04)

The results of this exercise are presented in table 8.5 and in figure 8.1.

Table 8.5: Proportions prescriptions for specific purposes made by experimental GPs in 5 half year periods (percentage of specific prescriptions from total number of prescriptions)

Type of prescriptions	Half year periods					Total
	99/1	99/2	00/1	00/2	01/1	
	%	%	%	%	%	
Specific	18.8	22.5	23.4	25.4	30.2	23.2
Non specific	81.2	77.5	76.6	74.6	69.8	76.8
N (prescriptions)	16.779	13.718	17.594	9.708	8.492	66.291

Figure 8.1: Prescriptions of specific drugs by experimental GPs in 5 half year periods (proportion of



specific prescriptions from all prescriptions)

Overall about one quarter of the prescriptions is for specific drugs. There is a clear rising trend in this proportion over the five half year periods, from 18.8% in the first period to 30.2% in the fifth period. So, this evidence suggest a gradual change towards the use of more specific drugs.

! 8.1.4 The provision of particular services

In addition to the referrals and medicine prescriptions a few particular services have been examined in detail. These are: the application of minor surgical procedures (such as stitching wounds and the removal of splinters and other foreign bodies) and the diagnostic tests for problems related to hearing and vision. These services have been selected because experimental GPs have been provided with instruments for these purposes and they have been points of attention during the study tour and in the peer review group. In general, it was expected that GPs would have become somewhat more involved in these services. The reservation in this expectation refers to the fact that the expansion of what the GP offers not immediately results in an increased use of these services. It takes time before patients learn that their GP can be approached for this demand.

- Minor surgery

In this analysis patient contacts with an exclusive not-curative aim were excluded. From this subset of contacts those have been counted which had a 'minor surgical procedure' as the reason for encounter. Table 8.6 shows the result of the experimental group over the 5 half year periods; in table 8.7 the experimental and the control group are compared for the 3 registration periods.

Table 8.6 Proportions of contacts with minor surgery in experimental practices in 5 half year periods (percentage of total number of curative and mixed contacts)

Type of service		Half year periods					Total
		99/1	99/2	00/1	00/2	01/1	
Minor surgery	abs	136	140	135	116	42	569
	%	0.8	0.9	0.8	1.1	0.5	0.8
N (curative + mixed contacts)		16.330	15.207	16.717	10.446	8.984	67.684

Table 8.7 Proportions of contacts with minor surgery in experimental and control practices in 3 periods (percentage of total number of curative and mixed contacts)

Type of service		Registration period				N contacts (1999 + 2000 + 2001 = total)
		1999	2000	2001	All	
Minor surgery exp. group	abs	37	20	9	66	2293+2999+2673=7965
	%	1.6	0.7	0.3	0.8	
Minor surgery control group	abs	135	46	9	190	9852+6706+3224=19782
	%	1.4	0.7	0.3	1.0	

From the contact registrations there is no evidence for an increase of minor surgical interventions by the GPs. No increase has been found over the 5 half year periods in the group of experimental GPs (table 8.6). The proportions of contacts for this purpose stay around 1 percent. Even in table 8.7 the tendency seems to be decreasing, particularly in the control group.

- Hearing problems

On the similar subset of contacts the provision of audiometric testing has been investigated. The results are presented in tables 8.8 and 8.9.

Table 8.8 Proportions of contacts with audiometric testing in experimental practices in 5 half year periods (percentage of total number of curative and mixed contacts)

Type of service		Half year periods					Total
		99/1	99/2	00/1	00/2	01/1	
Audiometric testing	abs	18	3	9	13	9	52
	%	0.1	0.0	0.1	0.1	0.1	0.1
N (curative + mixed contacts)		16.330	15.207	16.717	10.446	8.984	67.684

Table 8.9 Proportions of contacts with audiometric testing in experimental and control practices in 3 periods (percentage of total number of curative and mixed contacts)

Type of service		Registration period				N contacts (1999 + 2000 + 2001 = total)
		1999	2000	2001	All	
Audio testing exp. group	abs	4	2	7	13	2293+2999+2673=7965
	%	0.2	0.1	0.3	0.2	
Audio testing control group	abs	1431	1008	2	2441	9852+6706+3224=19782
	%	14.5	15.0	0.1	12.3	

In the experimental group audiometric testing was a rare services throughout the time of the project (see table 8.8). In the control group this service is much more reported, at least in 1999 and 2000. In the third registration period it has almost disappeared from the registration (table 8.9).

- Vision problems

The analysis of vision testing was identical to the one on audiometry; results are reported in tables 8.10 and 8.11.

Table 8.10 Proportions of contacts with vision testing in experimental practices in 5 half year periods (percentage of total number of curative and mixed contacts)

Type of service		Half year periods					Total
		99/1	99/2	00/1	00/2	01/1	
Vision testing	abs	1	42	-	53	-	96
	%	0.0	0.3	-	0.5	-	0.1
N (curative + mixed contacts)		16.330	15.207	16.717	10.446	8.984	67.684

Table 8.11 Proportions of contacts with vision testing in experimental and control practices in 3 periods (percentage of total number of curative and mixed contacts)

Type of service		Registration period				N contacts (1999 + 2000 + 2001 = total)
		1999	2000	2001	All	
Vision testing exp. group	abs	-	-	-	-	2293+2999+2673=7965
	%	-	-	-	-	
Vision testing control group	abs	654	36	11	701	9852+6706+3224=19782
	%	6.6	0.5	0.3	3.5	

No cases of vision testing have been reported in the experimental group. In the control group there have been many contacts for this purpose in the first period. In the following two periods the proportions have been drastically lower.

! 8.1.5 Patterns of morbidity

Discussions in the GP group on the identification and treatment of conditions which were not primarily medical, but that had psychological or social backgrounds, could have resulted in a shift towards such diagnoses. For this report only a general analysis of diagnoses was made on the level of ICD chapters.

Table 8.12 Distribution of diagnoses over 7 most frequently used ICD chapters by GPs in the experimental group

ICD chapter	diagnoses*)

	Abs	%
Respiratory	29.448	39.4
Circulatory	16.108	21.6
Musculo-skeletal	7.880	10.6
Digestive	4.739	6.3

Accidents/poisonings	4.500	6.0
Nerve	2.964	4.0
Uro-genital	1.898	2.5
N =	74.682	100

*) only with curative and mixed contacts

This crude breakdown of diagnoses over most frequently used ICD chapters shows a pattern of morbidity which is strongly dominated by respiratory diseases. Almost 40% of diagnoses is in this category. Further analysis, beyond the scope of this evaluation, will learn what else than the frequently presented flue and flue-like conditions make up this demand. Well over one fifth of the diagnoses are related to the circulatory system, including hypertension and heart diseases. The third category, with just above 10% of diagnoses, refers to diseases of the musculo-skeletal system. The other chapters, mentioned in the table collected 6% or less of the diagnoses.

In this table no subdivision was made over the five half year periods, because no particular trend could be identified in the analysis. The proportion of each of the ICD groups has remained relatively stable over the periods. Comparison between the experimental group and the control group of GPs did reveal no significant differences either.

! 8.1.6 Satisfaction among GPs and patients

Even though satisfaction among GPs has not been measured explicitly, the evaluation of the study tour, the strong involvement in the peer group without drop out and the information from the interviews points to a high level of satisfaction.

In respect to the patients, the GPs have indicated that, after a period of habituation, they perceived an appreciation with the GP's new working style (more details from the interviews were reported in 7.2.2). Directly with the patients we used the QUOTE instrument to ask, in the beginning and at the end of the project, random samples of patients visiting the practice, about experiences with aspects of their GP's services. The questionnaire contained 21 items; respondents first indicated the perceived importance of each of the items (list A) and subsequently indicated how they evaluated them with their own GP or practice (list B). Since refusals were not recorded response rates cannot be calculated. The numbers of recollected and processable questionnaires (both the A list and the B list) have been summarised in the following table.

Table 8.13: Response of the patient evaluation survey

Practices	1999	2001	total
Experimental	826	754	1.580
Control	860	600	1.460

The overall results of the evaluation have been reported in section 7.1.2. There was a slight progress in these experiences with patients from the model practices. In the control group, however, patients showed a clear deterioration of the experiences. Now, we will consider the results by the 15 single items that were reported as the most important aspects of evaluation. In both years there was an almost perfect agreement among patients in the experimental practices and the control practices about the composition of this list of 15 most important aspects. Only 1 item was ranked 17th by the

patients from the experimental practices in the 1999 assessment. Furthermore, agreement within this group of 15 items was high enough to allow presentation of the items in rank order in the table.

Table 8.14: Patients' evaluations of GP practice and services in experimental and control practices; appreciations at two points in the time on 15 items rated as most important

Indicators (in order of importance)	experimental practices			control practices		
	1999 (a)	2001 (b)	b - a	1999 (a)	2001 (b)	b - a
1. Keeping appointments punctually	335	338	+03	336	315	-.21
2. Taking me seriously	336	337	+01	334	318	-.16

3. Being prepared to make a home visit	338	327	-.11	315	300	-.15
4. Working efficiently to reduce my complaints	318	321	+.03	318	288	-.30
5. Giving me good directions for use of the prescribed medicines	323	315	-.08	307	299	-.08
6. Being easily accessible by phone	327	321	-.08	308	301	-.07
7. Having a desk and consultation room with sufficient privacy	310	320	+.10	307	288	-.19

8. Taking care that prescribed medicines are available in the local pharmacy	315	318	+0.03	315	306	-0.09
9. Always informing me clearly about aims and kind of treatment	317	321	+0.04	315	297	-0.18
10. Always being the same GP	328	329	+0.01	318	313	-0.05
11. Always informing me clearly about my illness or conditions	311	319	+0.08	306	296	-0.10

12. Having the practice accessible for elderly, users of wheelchairs etc.	315	312	-.03	288	266	-.22
13. Showing my patient files on my request	300	292	-.08	302	299	-.03
14. Coordinating care with other care providers	286	303	+.17	289	258	-.31
15. Providing me with clear information on the organisation of the practice (office hours, emergency number, weekend service etc.)	321	320	-.01	302	284	-.18

Per item, the table shows the average evaluation scores produced by patients in the experimental practices and the control practices in 1999 and in 2001. At first glance, there is a striking difference between both groups. The patients from the experimental practices are more positive in 2001 than in 1999 on 9 of the 15 items, while in the control practices all items were evaluated more negatively in 2001 than they were in 1999. A number of items draw particular attention. The coordination of care with other care providers (item 14) shows the strongest improvement in the experimental group and strongest downswing in the control group. The improvement in the experimental practice may result from the increased contacts between these GPs and specialists and the efforts of the GPs to work

more as a gate keeper to secondary care. Another contrast is in the privacy of the practices (item 7). The positive evaluation in the experimental practices may be an effect of the renovations that have taken place in these practices and not in the control practices. This may be related to item 12, on accessibility for elderly and handicapped, which was also much more negatively assessed in the control practices. In the attitudes of the GP and the treatment of the patients, items 1 and 2, improvements are marginal in the experimental group, but the gap with the control group has become considerable. There is point of concern with the experimental GPs. Accessibility, by telephone or in terms of preparedness to make home visits, has been evaluated as worse in 2001 compared to 1999.

! 8.1.7 Identifying possibilities for home nursing care

Like the policy makers, also the GPs from the model practices during their study tour have learned about the possibilities of home nursing care. It was agreed that health centre teams in Belarus should be extended with home nurses, working in collaboration with GPs for elderly and chronically ill patients in their homes. In this way hospital admissions for mainly social reasons could be reduced. A team of four persons, with a management, teaching and practical background, was created to prepare a training programme. The implementation of this course was more than was foreseen at the onset of the project. However, this success created a problem as well; since the new function was not yet recognised, the health centre staffing could not be extended and trainees returned in their old position. This subject will also be dealt within the following sections on policy and on training.

! 8.1.8 Conclusions on 'Model practices'

The network of 10 model practices with 13 GPs in the Minsk region was established successfully. This group of physicians has been very dedicated to the project and was highly motivated to participate in the activities, even after the project was over. By joint inputs from the project and from Belarus side the working conditions in these practices have been improved.

Concerning changes in the professional behaviour, the expected reduction in referrals to medical specialists was not found on the basis of evidence from the contact registration. Compared to the control group, the GPs in the experimental group turned out to be atypical. Throughout the time of the project the level of referrals was much lower in the experimental group than in the control group. A similar situation was found with the prescriptions of medicines. No reduction was found over time, but experimental GPs had consistently lower proportions of patient contacts with prescriptions.

Presumably, the careful selection procedure of the experimental group had created two groups which were not quite comparable from the beginning.

Although not set as a target before, the application of minor surgical procedures and the treatment of eye and ear problems were examined in more detail. No increase was found over time in the involvement in these services. Furthermore, a general analysis of the pattern of morbidity did not reveal a shift over time in the attention paid by GPs to certain diseases (for instance psychological problems). So, taking into account that GPs in the experimental group overall scored 'better' than their colleagues in the control group, it must be concluded that we found no evidence for improvements on a number of specific services in the experimental group.

From direct observations and from the interviews, the GPs that participated in the programme appeared to be very satisfied. Survey results showed that patients in the experimental practices evaluated the services of their GP somewhat higher at the end of the project than at the onset. This was in sharp contrast with the evaluations in the control practices, that deteriorated on all aspects. Differences were largest with: the coordination by the GPs of care with other providers, the privacy in the practice, accessibility of the practice and the attitude of the GP towards the patient. This seems to support what the GPs have reported in the interviews on the effects on the patients.

The final goal in this project area was: learning the possibilities of community nursing in the Belarus health care context. This was more than achieved. In addition, even a provisional re-training course was developed and implemented with a first group.

8.2 Outcomes on 'PHC policy & regulation'

Since the original proposal contained sufficient details about the state of the policy at the start of the project, it was decided that no inception report was needed. The study tour with officials of the Regional Health Authorities and the Ministry of Health (see 6.2.1) has laid an important basis for later policy development in the context of this project. The report that the group produced after the study tour contained recommendations in the fields of general practice, home nursing care, practice

management and professional and scientific organisation of general practice. It has been an important input to the official policy paper of the Ministry on the future development of primary care in Belarus. Furthermore, the project has also focussed on a number of specific topics: more cost-effective prescribing of medicines, a more effort-related payment system for GPs, an official description of tasks and duties of GPs and a procedure for (re)certification of GPs.

! 8.2.1 Pharmaceuticals

Rising costs for pharmaceutical prescriptions in Belarus resulted in shortages, even in the availability of essential drugs. To cope with this situation a proposal was made for the Ministry along the following lines:

1. The Identification of three groups of pharmaceuticals:

Firstly, a list of essential drugs, which should regularly be available in all pharmacies, derived from the WHO list of essential drugs. Co-payments should be possible for these products. Secondly, a list of less essential drugs, of which the availability cannot be guaranteed and for which co-payments are possible as well. Finally, non listed drugs were identified, for sale at cash payment only.

2. A policy on the routine delivery of the cheapest equivalent product, implying a preference for generic products if these are cheaper than branded products.

3. Promoting more rational (evidence based) prescribing habits by doctors. In the GP peer group this topic has been addressed and a more critical attitude has been promoted. Additionally, waiting room folders have been produced explaining the patients how to deal with minor conditions for which use of medicines and visits of a doctor are not always necessary.

The proposal has been clarified and discussed with the Ministry. An essential drugs list has not been issued in the time of the project and the introduction of any co-payments was considered not feasible at present in Belarus.

! 8.2.2 GP payment system

The prevailing system of flat salaries of GPs did not take into account the increasing workload and only to a limited extent the new qualifications of the GP. A proposal was produced for the Ministry containing a mixed payment system consisting of a basic salary with extra allowances for availability during evenings and weekends; the delivery of certificates for sickness, sanitation and other (non-medical) purposes; the care provided to non-listed patients (visitors, holiday makers); and the achievement of certain targets, e.g. on referrals to specialists, prescriptions of medicines and abortions. After intensive discussions with the Ministry, a weighted capitation system was decided to be too complicated. However, a new payment system could be realized that was more related with the size of the practice and availability in the evenings and weekends. It was also related to certain outcome indicators (although not all we suggested were taken). In the new system GPs had 20% higher pay than district physicians. This was less than we - and particularly the GPs in the model practices - expected. The new system has been implemented on a limited scale with the physicians who have completed the retraining course. Larger implementation is foreseen in the Vitebsk region, which has been appointed as an experimental region for a new - more decentralised - financing system.

! 8.2.3 GP Job Description

A draft GP Job Description has been produced and this was submitted to the Institute for Postgraduate Medical Training and the Regional Health Authorities. The document was appointed by both in the Spring 2000. In the Postgraduate Institute this draft document was used as an input for adaptations of the GP training curriculum. The Regional Health Authorities has used it for detailing the 'Requirements for Qualification in General Practice', which specifies the practice conditions and areas of competence of GPs. The Association of GPs had the intention to discuss the Job Description and appoint it as an official reference document on the position of the GP in the Belarus health system. Specific action has been undertaken to expand the professional competences of the GPs. With the Postgraduate Institute, a proposal on medical check ups by the GP was made and submitted to the Ministry. For these routine check ups patients needed to visit a range of specialists for parts of the check up. A decree, which is needed to allow GPs to do these tasks, has not been issued before the end of the project.

! 8.2.4 Future PHC development

With the Ministry and the Regional Authorities discussions have been held repeatedly about the strategy and models for future expansion of primary care. We pointed to conditions for and consequences of the way of working in our model practices, such as gate keeping to secondary care, enlisting and free doctor choice of patients, teamwork, organizational structure, professional organization and quality assurance and financial incentives. The discussions on the strategy of expansion had two dimensions: firstly growth of the number of rural GP practices, also in other regions; secondly the primary care model for urban practice, which is more complicated due to the abundance of secondary care facilities, needed to be detailed. Three conferences have addressed these subjects: Gomel December 1999, Minsk March 2000 and the final conference in Vitebsk April 2001. At these occasions, presentations have been made from the project. An approach in two steps was unfolded from the current situation to the future organization of health care with separate provision of primary care and specialist care. The model that we outlined has been the basis for discussions on a continued project. The draft policy paper on primary health care development in Belarus until 2005, produced by the Ministry by the end of the year 2000, was the result of this process as well as of external orientations of the Ministry (ia. in the Russian Federation and with the WHO). The WHO conference of the St.Peterburg Initiative, held in Minsk in October 2000, was an important event in this respect. All delegates visited the model practice in Krupitsa. The policy document, which was with the Council of Ministers for approval, contained many elements proposed from the project. Apart from the written policy intentions, Ministry and Regional Authorities have appointed a number of new locations to realize the intended expansion. Partly, these have been incorporated in the plans for a continued project. At national level general practice will be implemented in the regions of Vitebsk and Gorodno. Within the Minsk region the Authorities have appointed the towns of Soligorsk, Molodechna, Zaslava and Borisov for expansion. Health Authority's of Minsk City in collaboration with the project have planned two expansions in this city (two polyclinics and one newly constructed satellite). These locations have been visited and the management has been informed about the plans.

! 8.2.5 Community nursing

According to the PHC policy document issued by the Ministry, there is agreement that community nurses should be part of the primary care team. Details about funding, however, still need to be arranged. A complication with the introduction of this discipline was that the Ministry of Welfare also turned out to be responsible. The debate from which budget community nursing care should be paid has not yet been concluded. In the context of the project, basic materials on job profiles and tasks of community nurses have been translated and made available to teachers and policy makers. In collaboration with the Nursing Department of the Postgraduate Institute (re-)training needs have been formulated, using the WHO learning materials on nursing (LEMON). As reported in chapter 6, two study trips have been organized to The Netherlands and to Lithuania. In the Fall of 2000 these project inputs resulted in a provisional curriculum, as was the aim of the project. A first course has been organized for a first group in November 2000. In the follow up of the course, however, we were confronted with the lacking regulatory context and financing, so that the trainees could not effectively work as community nurses. One of the GPs commented in the interviews: 'The implementation of community nursing has failed so far. The function should be recognised as a specialty, including the salary and the financing. The development of the education should be followed up at the Regional level. In the Districts practical facilities should be provided, such as a working room, equipment and transport.'

! 8.2.6 Districts: the missed level

Working with the District Authorities was not formulated as a goal in the project. Incidentally we have visited head doctors in Districts to inform them on the project activities they were confronted with. After all, we should conclude that not systematically involving this level between the GPs and the Regional Authorities has had disadvantages, as the interviews with the GPs showed.

Doctor A: 'As a result of a lack of information at the District level, managers at this level have not been sufficiently active. They were thinking that the new primary care was realised already. We need the district doctors, because they should give their permission to continue our quality assurance activities'.

Doctor B: 'The district authorities are still very hierarchical and controlling. They should be more open to the GPs. Our professional independence is still much depending on the person of the Head of the

District, who is setting the targets, which are not always realistic, and who is the one to assess achievements. GPs are dependent'.

Doctor C: 'There seems to be a lack of interest at District level. They are not satisfied with my 'production' statistics. Verbally they may be in favour of primary care and general practice, but they have no time to really think about it. There are too many problems in rural areas; they just try to survive'.

Doctor D/Doctor E: 'When we came back from the study tour in the Netherlands the District Authorities had a resistant attitude, but this has gradually improved because they perceived that the higher levels and the Ministry were positive about what we are doing'.

Doctor F: 'It remains difficult at District level. The comparisons they make between our and other practices are not fair. The criteria are not clear and we do not know where the criteria come from. They are not against us, but simply not interested. It is also because the lack of resources, which is an obstacle to any change in our district'.

Doctor G: 'Our managers are not interested because they do not know. Actually they are uncertain about these changes and that is why they still see us as the black sheep'.

Doctor H: 'There is no activity in this District. We have no meetings or whatsoever. There is just bureaucracy and the 6 monthly sanitary control. The new GPs do want to achieve better care and services, but there is no support from the District'.

! 8.2.7 Conclusions on 'Policy and regulation'

Although it is not easy to assess the impact of the project on health policy in Belarus, it may be concluded that there has been an influence. A major indicator for this has been the policy document of the Ministry in which primary health care has become a priority area, implying the allocation of resources for medical equipment and computers and the appointment of the Vitebsk region to experiment with new models of health care financing and provision. Indeed, this document was not yet appointed by the Council of Ministers, but yet it is an important result of decision making in the Ministry.

Besides, a new payment system has been introduced with some elements from the proposal made from the project. The proposed gate keeping role for GPs has been recognised by the Ministry, but has not been implemented yet. The status of the draft GP job description is still unclear, but it is used for educational purposes and Regional Health Authorities use it as a frame of reference with new GP practices. It may be expected that it will play a role in the new legislation on primary care which is to be developed. Our proposal on pharmaceutical medicines was not successful as co-payments and other infringements on the principle of free provision of care were still unacceptable. A procedure for (re)certification of GPs has not been implemented. As long as private practice is not possible in Belarus, such a procedure is less urgent. At present, completion of the GP retraining course is the only requirement to certify as a GP. What has been produced is a book containing more than two thousand examination questions to qualify as a GP. However, more requirements, on continuing education and practice organisation, are waiting to be set. Concerning community nursing there has been an incongruity between educational activities and policy making. When (unexpectedly) a first group of nurses was trained nothing was prepared for this new function to be implemented. This problem has been expressed clearly in the interviews with participants of the course (more details in section 7.5.3).

Some comments should be made on the conditions of the project. Policy making in the project could have made a quicker start if Regional Authorities and the Ministry would have had more clear expectations on their role in the project. From the side of the project it has not always been clear what belonged to the domain of the one or the other; contacts between both levels have been sparse. Although, to some extent, the project has bridged the gap between the Regional Authorities and the Ministry, we might have done more by organising more joint workshops. Another problem has been some delay as a result of two replacements, during the time of the project, of the head of the Minsk Regional Authorities (though, with whom the cooperation has been very good).

8.3 Outcomes on 'Training & education'

With training and education the focus has been on GPs and, to a lesser extent, on community nurses. The two study tours to The Netherlands and the one to Lithuania have been crucial inputs that have laid a basis for the other activities. These study tours have been described and evaluated in the

sections 6.2.2 and 6.2.3 and thus will not be dealt with here. Concerning the GPs this section will subsequently treat the development and implementation of the postgraduate retraining course and the peer review group, including the work on professional guidelines. With respect to community nursing the subject will be the development of the provisional training course and follow up activities.

! 8.3.1. GP retraining programme

The Institute for Postgraduate Medical Training has been the partner in developing this programme. Participation of two representatives of the institute in the study trip for officials to the Netherlands was an effective impulse in this respect. A draft retraining curriculum, produced by Belarus counterparts, was commented by Dutch GP experts. As the resulting programme became operational (the duration was six months; the GPs of the model practices followed a compressed six weeks course), at the same time attention was paid to the facilities, housing and organisation of the new Department of General Practice in the Institute. Needs for training materials and teaching aids were assessed, resulting in the purchases specified in section 6.5. The model practices were decided to have a role as training practices for GP trainees. With the appointment of the local coordinator as a staff member in the department for one day per week a firm link with the project was established. The department has got its own renovated housing, in the premises of a hospital in Minsk. Course evaluation was introduced as a routine and resulted in suggestions and ideas for improvement of the content and the structure of the programme. Modules on communication and practice management were felt to be missing. As a start for the communication training two Dutch instruction video tapes have been provided and subtitled in Russian. Didactical changes were also necessary, for instance, more 'learning by doing' and interactive learning in groups. Other suggested changes were to shorten the course (six months was felt too long), to improve its coherence and the follow-up after completion. In this way the programme is gradually improving. Until now several dozens of doctors have received their GP certificate after completion of the course.

Interviewees made the following statements about the retraining course.

Local coordinator: 'The construction and implementation of a postgraduate curriculum and groups of doctors having completed the course are major achievements. It should be admitted that the curriculum still can be improved. It is too theoretical and should be more primary care oriented and the capacity needs to be expanded. But the teaching materials, such as the 'phantoms' and diagnostic instruction models, and the textbooks and journals purchased by the project have been an important support and are highly appreciated. We have also been able to find relevant textbooks and a primary care journal in the Russian language. In this way a modest start could be made with a library, but there is a need for much more printed and electronic materials and for audio-visual media. There has been a good flow of documents and other information to allow the construction of the Belarus GP curriculum'.

Doctor B: 'The new GP training course at the Institute of Postgraduate Training is a positive development. Some parts are too detailed, probably because most teachers are still specialists. They pay attention to rare pathology that does not fit well into general practice'.

Doctor D: 'The course at the Institute for Postgraduate Training had both good parts (such as family planning and cardiology) and parts that could be made more relevant for GPs. The course could become less theoretical if it would concentrate more on training of concrete topics. Some teachers could apply a more interactive approach, like we do in the peer group'.

Doctor F: 'The course (for our group only six weeks) was too short and could be more practical. Communication would deserve more attention'.

Doctor G: 'The course has been a useful addition to the other activities we had in the project. For less-experienced doctors a six-week duration is too short'.

! 8.3.2 GP peer review and quality assurance

Peer review has been a core method of training with the GPs affiliated to the project. The coordinator of the GP department in the Postgraduate Institute has been an additional member of the group. The institute also hosted most meetings. Major outcomes of this newly introduced method for practice-based quality assurance, have been the development and publication of professional guidelines (or standards) and a more critical reflection among the GPs on the quality of their services. But more important was that the group became familiar with this new grass-root approach of continuing medical education. During the time of the project the group more and more operated independently, without the presence of the Dutch GP trainer. Meetings were not just devoted to the peer review but also to

skills training, commenting policy documents and discussing the structure of the new GP Association. Important topics addressed by the group will be described below.

- *Professional guidelines*

Subjects for the guidelines have been chosen by the group. During the time of the project the following guidelines have been developed: Fever with young children; Acute otitis media; Low back pain; Hormonal contraception (not yet completed). Except the last mentioned, all guidelines have been discussed with a relevant medical specialist and, in its final version, published in the Belarus medical journal *Medizyna*. Information from the practice information system has been used as feed back to the peer group to show variation among GPs on diagnosis and treatment of the topics under consideration. The production of guidelines was positively appreciated by the authorities and they aimed for a much larger set than could be made by the group. This resulted in the Postgraduate Institute to produce a book of guidelines, centrally drafted by medical specialists. GPs from the peer group were given the opportunity to comment on these drafts before their publication (which also contained the GP-made guidelines). From the interviews there is the following evaluation.

Local coordinator: 'The activities in the peer review group have been very successful. This instrument for quality assurance has been well received by the GPs. A proof of success has been the continuation after the end of the project. It has been an intensive experience, especially in the beginning. The results have been quite satisfactory and the atmosphere in the group was stimulating, which was also the result of good coaching by the Dutch expert. Working on the guidelines has been an instructive process that has certainly affected the daily practice positively. The book of guidelines produced by the GP Department in Institute for Postgraduate Training indeed were not exactly as we would have made them, but it reflects the enthusiasm to continue. Nevertheless, conditions for the continuity and expansion of peer review should be observed. Future groups should consist of GPs in the same district in order to avoid a lot of travelling. Also, resistance with District Authorities should be taken away.'

- *Family planning*

As a result of successful family planning activities in the Krupitsa Health Centre, the group adopted family planning as an additional new target. GPs were informed on different modes of contraception and trained to insert IUDs. For some time Schering pharmaceutical company has provided the 10 practices with free contraceptive pills. Unfortunately this was discontinued after these goods were regarded as humanitarian aid which implied complicated and lengthy bureaucratic procedures.

- *Patient folders*

Thirteen patient information folders have been developed, all related to the guidelines and other activities in the GP group. For each experimental practice sets of folders have been printed. The GPs have decided to address later life style habits (e.g. smoking, alcohol use, diet and physical exercise).

- *Practice visitations*

By way of finale of GP quality assurance a project visitation round was organised. This implied that, in a pre structured way, GPs made mutual practice observations and reported the findings in the group.

- *Continuity*

Discussions on the continuity of the peer group focussed both on future activities (after the end of this project) and on creating new peer groups (directed by members of the current group). In addition to a continued development of guidelines, various new activities could be started, such as improving communication skills, patient information approaches, didactical and other techniques necessary for chairing a meeting and aspects of practice management. Starting new groups appeared to be more labourious than we initially thought. Several members of the current group were basically willing to start a new group in their district. In the present Belarus context, however, such 'bottom-up' initiatives are unusual and need support from the District Health Authorities, who should take the (formal) initiative. As mentioned, this district level has not sufficiently been involved in this project. On the other hand, it must also be admitted that there was hesitation with the GPs to take up this extra work for which there no compensation whatsoever. Nevertheless, some activities have been undertaken with a larger group of GPs, including those who recently completed the retraining course. They have been provided with some essential items of diagnostic equipment. In the beginning of 2001 this extended group of GPs met for the first time in a meeting on skills training and the use of guidelines. Some more meetings were scheduled for the future.

- In the *interviews* GPs looked back on the activities in the peer group.

Doctor A: Peer review has had an important influence on my work, an integration of theory and practice. We have learned a lot from the different opinions and finding consensus. The role of the Dutch trainer was completely new: stimulating us in critical thinking and in solving problems in a rational way'.

Doctor B: 'Working in the peer group was a positive experience that gave us more power and that helped us developing our own way of thinking. It is essential that professional standards are developed by GPs themselves. Equally important is the official recognition of the standards, because they can protect us against allegations (for instance of insufficiently diagnosing)'.

Doctor C: 'I am very positive about our high level of working in the peer group. This strong group has strengthened our position and our professional self-awareness. The Dutch experts stimulated independent thinking. The up-to-date information, also from the Internet, was quite helpful. It has been a fascinating deepening of our job; actually we should meet more frequently.

Doctor D: 'In the peer group we learned to set priorities, discuss topics in a structured way and find a consensus. It was a completely new way of education. Even the exchanges during coffee breaks were instructive. Unfortunately we only fully completed three guidelines, but we needed the time.

Doctor E: 'The quality of our discussions very much improved as a result of the peer group work. We were coached in a pleasant and non-directive way.

Doctor F: 'Working on the guidelines was a new form of education and the product was a useful concrete tool.

Doctor G: 'Important lessons from the peer group were the added value of working in a group and the importance of having access to modern professional literature. This new method was well introduced in a stimulating atmosphere; especially the critical feed back was useful. The standards are useful references for the daily work. In the future, specialists could be invited occasionally to contribute their expertise in the group'.

Doctor H: 'I frequently use the standards that we developed in the peer group; they make me more confident about prescriptions and referrals. We should continue working on the standards. Also as a way of continuing medical education the peer group has an essential role in addition to the traditional courses and lectures. Training of skills should also be continued'.

! 8.3.3 Training programme on Community Nursing

Although the officials were convinced of the value of community nurses in the Belarus health system in an early stage of the project, curriculum development started later than planned. This was due to difficulties in finding the right persons for the development of this new function. However, after they had started the activities proceeded well, powered by two study trips (see evaluations in section 6.2.3), an expert visit and the provision of materials. The result was a provisional training programme that has been organised for a first group.

- *Developing the retraining course*

Partner for this activity was the nursing department in the Postgraduate Institute. On the basis of Dutch materials, the WHO Learning Materials on Nursing (LEMON) and experiences from the study trip to the Netherlands a list of topics and skills was compiled that trainees (former feldchers and practice nurses) should acquire. In a few discussion and redrafting rounds this resulted in an outline for the retraining programme. With support of a Dutch consultant the tasks and working conditions of community nurses were further defined and the organisation of the course discussed. Since no computer was available, the nursing department was supplied with a computer to enable the efficient production of the necessary papers and documents. The current programme takes up 216 hours in a period of seven weeks, while a number of follow-up meetings were planned after the course at intervals of six weeks. Thanks to financial support from this project a first course could start in November 2000, which had not been planned. Part of the first group consisted of nurses and feldchers from the 10 model practices. Later, in 2001, two more groups would be trained, funded by the Ministry of Health. From observations of the teachers as well as from the evaluation appeared that the course in its current form is not yet in line with the practical needs. More attention should be paid to communication of the nurse with patients and family and there was a need for much more practical training. The orientation was felt to be too medical and theoretical. This can be changed if in addition to the current physicians, teachers with a nursing background will be appointed. There is awareness that a larger working group should work on the development of methods and materials in training and education of community nurses; including continuing education. This should result, similar to general practice, in protocols and guidelines.

- Funding and organisation of training and continuing education

The first course has been financed from the project because the funding and organisation needed to be arranged. Two ministries appeared to be in charge of community nursing, the Ministry of Health and the Ministry of Welfare. As long as responsibilities have not been settled, there will be no regular funding for the training of community nurses. This is related to the issue, mentioned earlier, of the official recognition of community nurses and the funding of nursing staff in the polyclinics and health centres. Another issue is from which group of health care workers future community nurses should be recruited. It appeared that feldchers prefer to stay a feldcher instead of becoming a community nurse.

The *interviews* produced the following relevant remarks.

Local coordinator: 'The intended outcomes of four nurses becoming acquainted with home care and the production of a preliminary new training programme have been realised. The idea of home care has been established now and the function of a community nurse will most probably be recognised. As a result, the plans for the establishment of numerous small rural clinics have been cancelled. Although the course programme for community nurses still needs to be further developed, a first group completed the course already in November/December 2000. Attention needs to be paid now to the implementation of community nurses in primary care and the follow up of the course.

CN teacher: 'On the basis of the study tours to The Netherlands and Lithuania we have been able to make a good start in the education of community nurses. We have many plans for the future, for the next Matra project, that we hope for. The curriculum will need to be expanded, for instance with a communication training. An article is in preparation on the subject. The publication of several textbooks and readers are foreseen; a first one on nursing care for children'.

Nurse A: 'Since I am a feldcher the course was rather an interesting rehearsal than a source of new information. New to me was the care for psychiatric patients. In general, the course was too theoretical; it should focus more on practical topics, such as how to deal with alcoholics. I think there is a need for a more independently working nurse, but myself I would prefer to stay a feldcher'.

Nurse B: 'The course reflected the intention to make a fresh new course. Most participants were satisfied, although things can be improved. There should be more attention to psychology, communication, information to families and elderly people and it should be less hospital-oriented. Topics, like cancer and neurology, were too theoretical. There was too much travelling to various hospitals. The course did not really prepare for the practice. Although I have identified a group of patients who qualify for home care, no start was made here because the District authorities were not informed. They should be involved in the implementation of home care. Without their initiative and their allocation of resources we cannot do anything'.

Nurse C: 'Certainly, there is a need for home nursing care, also to relieve the doctors. The quality of the teaching in the course was good, but it was insufficiently tailored to the home situation and too theoretical. The function of a community nurse was not expressed well by the course. The District cannot do much if there is no clear policy framework in the Region.

Nurse D: For me the course was the first time I was on continuing education; it was a positive experience. I learned technical procedures as well as to instruct families how to care for relatives. Making a nursing diagnosis was new to me. It identified the boundaries of the tasks of nurses and GPs. Lectures made by nurses were more interesting than those made by physicians. A problem is that all participants already have a job, so that any implementation of what we learned is not foreseen and nothing will change.

Nurse E: We have been able to implement community nursing on a small scale. Since we have few children in the practice, as a pediatric nurse, I have some time available for new tasks. Daily, I can make about five home visits to elderly and chronically ill patients and young children. We hope the function will be officially recognised'.

! 8.3.4 Conclusions on 'Training and education'

The outcomes realised in this project area have certainly exceeded the planned results. The GP peer group has developed to be the core activity in the project with influences both on the practical work of the GPs, and on teaching, professional development and policy making. The successful development and publication of guidelines in the GP group has got a follow up, by the Authorities, in a book with a larger set of guidelines. Additionally, the group has worked on various new topics: family planning, health information for patients, mutual practice visitation and inputs for policy papers.

Outcomes concerning the GP postgraduate training have also met the expectations. The course has been developed and implemented. This was facilitated by the housing that was provided for the newly established GP department and the teaching materials purchased from the project budget. From the evaluation it turned out that the course can be improved and that new elements can be introduced in the curriculum. It will take time to realise the suggestions that emerged from the evaluation, but there is a willingness to continue to improve the course.

In the area of home nursing care good progress has been made. Staff has become familiar with tasks and educational aspects of this new discipline and a new course programme has been drafted. The provisional implementation of the course, which was not planned, has learned that there are still various regulatory obstacles to be eliminated before home nurses will effectively work in the primary care teams.

8.4 Outcomes on 'Information & research'

Activities in this project area served two types of aims. Firstly, they were intended to contribute to the development of an information base or 'body of knowledge' for primary care and general practice in Belarus. Secondly, the information system and the generated data should provide feed back information to the GP peer review group and policy makers and serve the evaluation of this project; in this way they were instrumental to the other project aims.

Chapter 6 has already provided some factual information on the process of this project area, such as the number of missions planned and realised, the computers and software and the research training in The Netherlands. So, these can be dealt with shorter in this section. Result will be described along the following topics: the practice information system, research and its applications and an (externally submitted) proposal for extension of the research capacity. The section will conclude with information from the interview with the local coordinator and conclusion. The creation of a facility for research and development will be dealt with in the next section ('Institutional development').

! 8.4.1 Practice Information system

The registration system that generated the data on the primary process in the model practices was based on adapted software being used in polyclinics. A Belarus specialist made the adaptation according to the specifications for our purposes. For instance, the ATC coding for drug prescriptions had to be incorporated and other codes for the patient complaints and therapies. This software was installed on computers, purchased by the project for this purpose, and programmes were made for the processing of the data. The software specialist also instructed the staff from the model practices to work with the computer and the programme and how to retrieve the data. In fulfilling the help-desk and trouble shooting function throughout the time of the project he has been important for the continuity of the information system. Checks have been done on the quality of the data by discussing, in the GP peer group, 'suspect' variations among the GPs. This has resulted in incidental new instructions or adaptations in the data entry routine. The practice information system of the 10 practices, serving a population of about 23.000, has produced a data base of 75.000 patient contacts. There has been under reporting, and sometimes no registration at all, during periods of absence of the GPs (for instance for holidays or courses). Variations between practices also suggest under reporting in some practices. Nevertheless it may be concluded that the information system was successfully implemented and has produced data according to the planning. In contrast to the GPs in the model practices, who kept records permanently, their colleagues in the control group did so during three episodes of 15 consecutive working days with the use of standard registration forms. These data have been entered in the computer centrally.

The project has also been involved in the development of a new system of electronic patient files for GPs, at the Minsk Institute of Medical Technology. This system, which will be more state of the art and user-friendly than the one used in this project, is intended to be implemented in a continued project and, later, on a larger scale in Belarus. The local project coordinator was a member of the working group on the development and pilot implementation of the system. A test version of the system was installed in the Krupitsa health centre by the end of the project.

! 8.4.2 Information feed back and research

Research activities were based on the GP practice information system (with data on morbidity and interventions; see above), and a survey (called QUOTE) on the patients' evaluations of the changing services of GPs.

Translation and validation of instruments, sampling and distribution of questionnaires, data collection and data entry and analyses, have been carried out in close cooperation with the Belarus counterparts. For this purpose the local project coordinator has had a practical research training in the Netherlands (see below). For the evaluation with a quasi experimental design, data were collected with the experimental GPs and a comparable group of doctors not involved in the project interventions. During three episodes in the time of the project (May 1999; September 2000; February 2001) this control group of 13 doctors kept record of their patient contacts.

The QUOTE questionnaire for measuring the patients' evaluation of GP services has been specially tested and adapted for the Belarus context. It was administered both in the model practices and the control group to examine effects of our interventions on the satisfaction of patients. In each practice samples of about 70 patients have filled in the questionnaire in the beginning and at the end of the project. Results of the research has been reported elsewhere in this report.

Summary of data bases

<i>What</i>	<i>By whom</i>	<i>Period</i>	<i>Cases</i>
Registration of patient encounters	13 GPs in model practices	continuously	75.112
Registration of patient encounters	13 GPs in control practices	3 periods of +/-15 working days - May/June 1999 - March/April 2000 - March 2001	19.868
Patients' evaluation of GP services (QUOTE)	Samples of patients in model practices and control practices	In beginning (1999) and at the end (2001) of the project	1999: control 860 exp. 826 2001: control 600 exp. 754

- *Applications of research*

In the project, outcomes of research have been used for feed back to the GPs who worked on the guidelines, to provide evidence for proposals to the Authorities (ia. to show reductions in ambulance services by increased GP services) for presentations of the project at various occasions and for reporting. These satisfactory results have been achieved by efforts of the local coordinator, supported by the Dutch experts. This is a basis for further development of a facility for Research and Development, especially because the local coordinator was preparing his master's thesis with these data. However the realisation of such a central facility has been an expected outcome, and it must be concluded that this was not completely achieved. In the future research, information and documentation should be functions of the Postgraduate Institute. Since training and education of GPs and nurses was a priority, the research function was left with the local coordinator for the time being.

- *Research proposal Rockefeller Foundation*

In May 2000, with Belarus counterparts, an application was made for the 'International Awards to Support Cooperation in Health Research for Development', funded by the Rockefeller Foundation. The aims of these awards fitted well in this project and the agreement between Nivel and the Postgraduate Institute. The aims of the awards were: to encourage cooperation between institutions to enable the environment for health research. The proposal was not granted.

- *From the interviews*

Local coordinator: The data collection in the GP practices was complicated but completed successfully. The GPs had no experience with these activities, but now they see the use of computers and feed back information. The research training in the Netherlands was completely new and very

welcome; it should actually have taken place earlier. Now I see the possibilities of working with data and information.

The creation of central facility for Research and Development has been less successful. At present, the Postgraduate Institute cannot yet give the right inputs; the feeling for research is still absent there. However, it is positive that we made something; even if it is located in my bedroom. Even though many results of the evaluation are still to come, I am very satisfied about the reporting of feed back from the information system to the GPs in the peer group. More information should have been given to the Authorities in the course of the project. More presentations of results to the staff of the GP Department would also have been welcome'.

! 8.4.3 Conclusions on 'Information and research'

The computerised information system in the experimental practices could be installed and maintained without many difficulties in an environment where computers were unknown until then. It has allowed the collection of first data from general practice in Belarus. These data have been used for feed back to the GPs in the peer review group and for monitoring and evaluation of the programme. For the evaluation a quasi experimental design was foreseen, with repeated measurements in the experimental group and a control group. A difficulty with this design in a health care development project is that a real pre-test measurement is not possible: the intervention does not wait for the researchers. Another 'compromise' is that the control group is not a good match of the experimental group. An intervention that aims to show the feasibility and positive effects of general practice and primary care provision benefits from working with 'better than average' doctors. And that was what the evaluation evidently showed. Another research activity has been the population survey on the evaluation of the GP services. Asking patients' opinion about health care is still unknown in Belarus.

With the databases on the GP interventions and the QUOTE and the training of a GP researcher this project has certainly provided health care research a foothold in Belarus. An attempt to establish a larger and more structural facility failed. A research proposal for the Rockefeller Foundation was rejected.

8.5 Outcomes on 'Institutional development'

Institutional development has been a project target in order to root project activities in existing health care structures or, in the absence of such a structure, to create one for the purpose. Thus, in general, institutional development was meant to create conditions for consolidation and sustainability. In particular, institutionalising concentrated on three areas: education and training, independent professional organisation and the production and distribution of information. Subsequently outcomes will be described concerning the establishment of a department of family medicine, the erection of a national association of GPs/family doctors and first steps made towards a facility for research and information in primary care.

! 8.5.1 Department of General Practice/Family Medicine

The postgraduate training for GPs/family doctors was organised at the Institute for Postgraduate training in Medicine by the Faculty of Hygiene and Health Care Management. In the course of the project, the group of staff involved in these activities has become a separate department in the context of the Postgraduate Institute, with an office and conference room of their own. The local coordinator of the project, whs appointed on a part time basis as an assistant in charge of skills training to future GPs. Tasks of this department are in three areas: retraining of current district doctors to become GPs; implementation of the new postgraduate programme for General Practice /Family Medicine; and coordinating Continuing Medical Education courses. The experimental practices of the project were intended to be teaching practices affiliated to the Institute. This has not been realised due to the remote location of some of these practices and transport difficulties. An outline for the organisation of the department, including the role of the network of teaching practices, was made, but not yet implemented. It appeared not to be usual to work with explicit descriptions of staff responsibilities and competencies. Organisational efficiency and quality need to grow gradually, as does the coherence of staff and activities within the department. Still there are no structural staff meetings; by lack of consensus about principles, teachers (most of them being specialists) too often hold their own professional perceptions and learning goals.

! 8.5.2 Facility for Research & Information

Taking into account that any research tradition was absent at the onset of the project, it may be concluded that a good start has been made in this area. However, calling the outcome a 'facility' would be overdone. Indeed, a researcher has been trained and has proven to be able to apply the acquired knowledge and skills. A computer with statistical software has been installed. Data have been collected and used for presentations and feed back. But at the end of the project it was not realistic to expect that the Postgraduate Institute could receive and further develop this function. For the time being it is still with the local coordinator (and so, it is closer to the Association of the GPs). The role of the GP Department as a place for information and expertise is more promising in the short term. Books have been purchased (also in the Russian language) and international and Russian professional journals could be subscribed from project resources. Together with the new instruction materials and models this collection belongs to the starting capital of the young Department (which is more than many other departments have)

! 8.5.3 Association of GPs

It has been a dilemma, either to put a lot of energy in the erection of a true independent legal person (the outcome of which was highly questionable in the current context), or to create a not completely independent association, formally under the umbrella of the general Association of Physicians. The second choice was made; not the least because it left more opportunity also to start recruiting members and make a start with the programme of the Association. The recruitment of members started at a Minsk conference in March 2000. Besides, in an article published in the journal *Medyzina* this event was announced and the aims of the Association were explained. By-laws of the Association have been accepted at the occasion of the founding meeting in Vitebsk, April 2001. The Association has applied for membership of WONCA (the world organisation of GPs). At present the membership amounts over 100.

In the *interviews* some GPs referred to the Association.

Doctor B: ' Establishment of the GP Association has been very useful. It can be a pressure group to promote general practice and primary care' .

Doctor C: ' I see three important tasks for the Association: transfer of demands and suggestions to the health authorities and the Ministry, promotion of scientific research in primary care and exchanges with foreign organisations' .

Doctor G: ' The Association has broken our isolation. We have got more possibilities to pass on our problems to higher levels. The first general meeting of the Association in Vitebsk, with the election of the board, has demonstrated the motivation of the members' .

! 8.5.4 Conclusion on 'Institutional development'

Most successful in this area has been the start of the GP Association. The response to this initiative has shown that it filled a need for a professional organisation and development and a pressure group at the same time. Although the Association is formally part of the umbrella organisation of physicians, one of its attractions seem to be that it is flexible and free enough to organise its own activities with little distance to its membership. A second achievement, the establishment of a department of General Practice / Family Medicine in the Institute for Postgraduate Training, has been in line with the planning, although there are things to be improved. The organisation and management of the department are still weak; the newly developed educational programme needs to become more practical and the teaching methods used need to be further modernised. Lack of resources has slowed down this process. The establishment of a real facility for research and information seemed to be a bridge too far. These functions appeared to be too much 'foreign bodies' to be implanted fruitfully in the established structures. The information function, with reference books, journals and audiovisual materials have the best chance to get a place in the Postgraduate Institute not too far from now. The research function will take more time and is better off as a provisional appendix to the GP Association that is also interested in its products.

9. Project facilitation and continuity

The management of the project aimed at the smooth and timely implementation of the planned resources and activities, within the limits of the budget, on the one hand, and on the continuity of the

outcomes of the programme on the other hand. Although facilitation and continuity in itself are no outcomes of the project, they have created conditions that explain part of the success of the project and the durability of its outcomes.

9.1 Organisation and staff

Due to a relatively limited number of experts involved, the organisation of the project could be simple. The overall management was with Nivel, that held the contract and that was responsible for financial and progress reporting, twice a year, to the Dutch Ministry of Foreign Affairs. A small group of advisers, two from the previous Krupitsa project and one representative of the Nivel management, have been available for the project manager as a sounding board. In the working organisation of the project consisted of a Belarus and a Dutch part. The Dutch team consisted of four specialists from NIVEL (2), University of Utrecht Department of Family Medicine and the Hogeschool van Amsterdam, department of Nursing Education. This team could be small because most members were able to provide expertise in more than area in the project. Dutch experts made written reports of their visits to Belarus. There have been frequent (usually informal) contacts on progress among Dutch experts. Due to language barriers all communications between the Dutch partners (the project manager or other Dutch experts) and the Belarus partners passed via the local coordinator, who was exempted from his normal job as a GP on a part time basis. Besides, the local coordinator had a major role in the organisation of meetings and conferences, translations at all occasions and the preparation of project activities. With his knowledge of The Netherlands and the Dutch health care, originating from his previous involvement in the Krupitsa project, and his own ambition to strengthen primary care in his country, this young physician was the right person for this function. Other official counterparts from Belarus side were two representatives from the Minsk Regional Health Authorities, two from the Ministry of Health and four from the Institute for Postgraduate training in Medicine. It has been difficult to organise joint meetings, for instance on progress and coordination, with representatives of these three bodies. A few time this happened at the occasion of a conference. Bi-lateral meetings with the project manager occurred frequently and in a good atmosphere, but for coordination 'across levels' the project manager used to be the 'trait-d'union'. Sometimes it was difficult to find out to whose competency things belonged.

The group of 13 GP in the experimental practices played a central role in the project. Together with a representative of the Postgraduate Institute they formed the peer review group, of which the local coordinator also was a member. For this reason, coordination of the activities with this well-motivated group of physicians was direct and easy.

9.2 Consolidation and Continuity

As the project continued project activities gradually became more integrated in Belarus institutions and there was a shift in the balance of initiative from Dutch to Belarus side. This change can be demonstrated by the following examples:

- More and more meetings of the GP peer review group without Dutch experts
- Conferences on primary care organised on the initiative of the Ministry and Regional Authorities
- Initiative of the Postgraduate Institute to produce a large set of GP guidelines
- Appointment of the Vitebsk Region for more comprehensive introduction of General Practice
- A decree on Community Nurse training which enabled the start of the re-training course.

A deliberate policy to give publicity to the activities and the outcomes of the project, for instance at conferences and in articles, may have contributed to this integration. Anyhow, the positive proceeding of the project and the need, felt by the Belarus counterparts, to implement on a wider scale what this project started, has extended the horizon of our ambitions beyond the end of this project. In other words: towards the end of the project, ideas for a new continued project took shape. The result has been a new proposal submitted to the Matra programme.

! 9.2.1 Dissemination and publicity

Project publicity and dissemination of outcomes and experiences concern the organisation of, or the contribution to conferences and the publication of articles and book.

The project as made major contributions to the following conferences:

- Conference on the *future of Primary Health Care in Belarus. Gomel*, December 1999. The conference was attended by representatives from all regions in Belarus and was addressed by the Minister of Health. The project manager and the local coordinator made a presentation.

- *Conference on preliminary outcomes* of the project and the way ahead; *Minsk* 16 March 2000. There were two presentations from the project and information on plans to establish a Belarus association of GPs.

- The *WHO Conference of the 'St. Petersburg Initiative'*, held in *Minsk* 11-14 October 2000 with representatives from all countries of the former Soviet Union and observers from other countries. The local coordinator made a press release for the conference and prepared many texts for the Ministry of Health that hosted the conference. The project manager made a presentation. All delegates and hosts made an excursion to the health centre in *Krupitsa* where one of our GPs made a presentation on the organisation and the way the GPs are working and showed the premises.

- In collaboration with the Ministry of health and Postgraduate Institute the project contributed to the organisation of a *two-day conference* on the future of GP in Belarus held in April 2001 in *Vitebsk*. The first day was dedicated to policy matters, the second to education and daily care. There were two presentations from the *Matra* project. At the end of the first day a first official meeting was held of the GP Association.

Until now, the following project-related *articles* have been published in the Belarus journal 'Medyzina':

- guideline 'Fever in children'
- guideline 'Acute otitis media'
- guideline 'Low backpain'
- guideline 'GP and family planning'
- 'Acute and out of hours services' (use of ambulances by GPs)
- 'Development of PHC in Belarus' (resulting from the Gomel conference December 1999).
- 'The training on communication skills in the Netherlands'
- 'Complex preventive check-ups and the role of GPs' .

Other publications:

- A *newsletter* for distribution to people interested in our activities (i.a. those who were involved in the village twinning activities between *Markelo* and *Krupitsa*)

- A 110 pages *book with 30 GP guidelines*, among which five developed by the project's peer review group was produced by the Postgraduate Institute and published with financial support from the project. The guidelines were selected on relevance for GPs by the project staff from a larger number.

- A *book on qualification requirements for GPs, a GP job description* and summaries of presentations made at the occasion of the *Vitebsk* final conference. The book contained 120 pages and was co-sponsored by the project.

! 9.2.2 Soundings for a new project

A paper called 'Priorities for the remaining time and plans for the future' made in September 2000, *Utrecht*, after a coordination meeting with Dutch experts and the Belarus local coordinator has been the basis for ideas of a continuation in a new project. Plans were enhanced by the publication, by the Ministry of Health, of a policy paper on the development goals until 2005. Locations for new primary care implementation were selected and the intention was to re-equip about 100 practices.

From that time new contacts have been made with persons and institutes that could play a role in a continued *Matra* project. It was felt that our activities and outcomes had attracted attention. Visits were made to new locations in the city of *Minsk* which new style general practice was intended to be implemented and that could play a role in a continued project. A first location was a health centre under construction in *Sucharevo 6*, a new quarter in the outskirts of the city of *Minsk*. It is meant to be a community health centre with a wide range of facilities (doctors, nurses, midwives, well-baby clinic, dentist, physical therapy, laboratory facilities), but without specialists. This is an explicit philosophy; patients can be referred to a specialist in the policlinic at 7 kilometres distance. The director of policlinic appeared to be very positive about this new model for provision of care. Physicians have started to work in this centre in August 2001. The population in this quarter, about 20.000, consists for about 10% of people emigrated from regions contaminated by the *Tchernobyl* disaster. The remaining population mainly consists of young families.

A second location is *Policlinic Nr. 34* in another part of *Minsk* city. For many years this policlinic has a special status because of experiments in medical technology, management or special projects and particular ways of financing. The policlinic is very "complete" (all specialties are represented) and has its own statistical office that produces information for the management (e.g. number of consultations). The population covered by this policlinic is the average city population of *Minsk*. In this policlinic a

number of new-style GPs will be working. Both locations seem to be well suited for the practice-based training of GPs in the future.

With the Health Authorities of the Vitebsk region and the Medical University of Vitebsk extension of activities in a future project have been discussed; this has resulted in concrete plans for a network of experimental practices, a re-training programme for GPs and development of peer review groups in the region.

After all, there appeared to be sufficient support in the Ministry of Health, in Minsk City, in the Regions of Minsk and Vitebsk and with participating GPs to justify a new project. In the meantime a proposal has been submitted to the Matra programme.

10. Conclusions

References

- Boerma WGW. Going ahead with primary care in Belorussia; Proposal for a Matra project. Utrecht: Nivel 1998.
- Boerma WGW, Grielen SJ. Groundwork for primary care in Slovakia: Report from an EC/Phare project. Utrecht: Nivel, 1998
- Marrée J, Groenewegen PP. Back to Bismarck: Eastern European Health Care Systems in Transition. Aldershot: Avebury, 1997.
- World Health Organization. Health Care Systems in Transition; Belarus (draft). Copenhagen: WHO, 2001
- Boerma W, Fleming DM. The role of general practice in primary health care. St.Crispins: The Stationary Office, 1998
- Grielen SJ, Boerma WGW, Groenewegen PP. Science in practice: can health care reform projects in central and eastern Europe be evaluated systematically? Health Policy 2000, 53, 73-89
- Publications in Medyzina
- Progress reports ?
- Quote
- Nat. Study
- Other

Rousovitch V, Schellevis FG, Boerma WGW. Peer review and development of professional guidelines in primary care. Medyzina 1999; (3):15-20.

V. Rousovitch. General practitioner; first experiences and problems. Medyzina - 1998. -3. - □.19-21

V. Rousovitch. // Primary health care in the Netherlands. Comparison with Belarus. Medyzina - 1999. - '4. - □.17-21

W. Boerma, F.Schellevis, V. Rousovitch. Improving primary health care in Belarus. Pilot project in the Minsk region. Medyzina – 2000. – 1. □.15-17

V. Rousovitch , A. Sclyarov. Possibility of cooperation between GPs and the ambulance service. Medyzina 2000. 2. □.18-21

'Medyzina':

S guideline 'Fever in children'

S guideline 'Acute otitis media'

S 'Acute and out of hours services' (use of ambulances)

S 'Development of PHC in Belarus' (resulting from the Gomel conference).

S 'Communication training in the Netherlands'

S 'Complex check-ups and the role of GPs' (expected in February 2001).

Annexes

- Experts and counterparts involved in the project
- Chronology of missions, meetings, study tours and conferences
- List of publications and presentations from the project
- Guidelines, proposals and discussion papers
- Key figures from the data base
- programmes and evaluations of study tours

ANNEX

Planning of project activities

(according to proposal)

Time	Activity
1998	
July	- Coordination meeting 1 (introduction of experts; practical arrangements; planning; selection of locations/doctors for model practices; evaluation and registration; locums for participating doctors; contacts for community nursing; control group)
Aug/Sept	- Language course (english) (preparation for study tour abroad) - Workshop needs & options (equipment; policy options; parties involved; obstacles) - Practice registration 1 (pre-intervention assessment; also population satisfaction)
November	- Study tour Policy/Regulations (6 key persons) - Inception report (incl. plan of activities) - Workshop Information & Research 1 - Peer review session 1 - Training Family Medicine in NL (12 from model practices/2 from Postgrad.Inst./ 3 weeks)
December	- Training home care nursing (NL)(4 nurses; 2 weeks) - Workshop Policy & Regulations 1 - Workshop Institutional Development 1 - Maitra progress report
1999	
January	- Peer review session 2 (12 doctors model practices) - Workshop Information & Research 2 - Start R&D support facility (hard/software; books) - Progress / troubleshooting (in particular: model pract.) - Working conf. PHC options (exchange of views) - Distribution practice equipment (in model practices)

February	<ul style="list-style-type: none"> - Peer review session 3 - Workshop Information & Research 3
March	<ul style="list-style-type: none"> - 'Distant monitoring' - Preparation regional association of family doctors
April	<ul style="list-style-type: none"> - Peer review session 4 (guideline/consolidation) - Workshop Inform. & Res. 4 (a.o. role R&D structure) - Practice registration 2 (first post-intervention assessment)
May	<ul style="list-style-type: none"> - Coordination meeting 2 - Workshop Practice Managmnt (doctors in model practices)
June	<ul style="list-style-type: none"> - Matra progress report
July	<ul style="list-style-type: none"> - Workshop Policy & Regulations 2 - Workshop Institutional Development 2 - Training of researcher in NL (12 days: use of data collected in project)
September	<ul style="list-style-type: none"> - Preparation Acad. Chair of Family Medicine - Workshop R&D Centre ctd. (a.o. research programme) - Feed back on registration (input to plan adjustments)
Nov/December	<ul style="list-style-type: none"> - Practice registration 3 (2nd post-intervention assessment; also satisfaction) - Draft policy document - Draft job description family doctors - Draft curriculum Family Medicine - Outline curriculum Home Care Nursing - Matra progress report
2000	
January	<ul style="list-style-type: none"> - Coordination meeting (progress; targets for remaining period; consolidation)
March	<ul style="list-style-type: none"> - Requirements for continuity and future expansion and consolidation (paper)
April	<ul style="list-style-type: none"> - Feed back on continuity/expansion document
May	<ul style="list-style-type: none"> - Formulation targets for consolidation / way ahead Identification of legal obstacles / needs
June	<ul style="list-style-type: none"> - Matra progress report

Sept/Oct	<ul style="list-style-type: none"> - National conference on 'PHC now and in the future' - Consolidation meeting (Regional/National level) - Publicity plan
December	<ul style="list-style-type: none"> - Matra progress report
2001	
February	<ul style="list-style-type: none"> - Final consolidation meetings
April	<ul style="list-style-type: none"> - Final reporting (Belarus and NL/Matra)

ANNEX

CHRONOLOGY OF REALISED ACTIVITIES

Missions, meetings, study tours and conferences

1998

September 11-16	expert visit WB
October 26-30	expert visit WB
October 26- 28	expert visit FS
October 27	meeting GP peer review group
November 15-22	NL Study tour (officials and teachers)
November 30-December 3	expert visit WB
November 30- December 2	expert visit FS
December 1	meeting GP peer review group

1999

January 5-10	expert visit WB
January 17-February 5	NL study tour (14 GPs from model practices + 1 teacher)
March 3-5	expert visit FS
March 4	meeting GP peer review group
April 26-30	expert visit WB
April 28-30	expert visit FS
April 29	meeting GP peer review group
June 2-6	expert visit FS/AF
June 3	meeting GP peer review group
June 22-25	expert visit WB
November 16-19	expert visit WB
November 29-December 2	expert visit WB
November 29-December 2	expert visit FS
December 1	Conference Gomel on future of PHC in Belarus

2000

January 24-27	expert visit WB
January 24-27	expert visit FS
January 26	meeting GP peer review group
February 1-5	expert visit WdJ
February 9	VR presentation in Moscow
March 14-18	expert visit WB
March 16	Minsk Conference on PHC
April 13	Meeting GP peer review group
April 24-28	VR with Ministry of Health delegation to Vitebsk
May 4-7	expert visit PvH
May 5	Meeting GP peer review group
June 13-16	expert visit WB
June 20	Submission proposal Rockefeller Foundation
June 29	Meeting GP peer review group
June 26-July 7	NL study tour community nursing (teachers and officials)
August 23-24	Coordination meeting in Utrecht NL
September 6-8	expert visit WB
October 12-14	expert visit WB
October 13-14	WHO Minsk Conference 'St. Petersburg Initiative'
October 23-26	Study tour Community Nursing to Lithuania
October 24	Meeting GP peer review group with newly trained GPs
November 14-17	expert visit FS
November 16	Meeting GP peer review group

November/December	Visitations in the pilot practices
November 19-26	Research training VR in the Netherlands
November 28-December 1	expert visit WB
December 20	Meeting Regional Health Authorities with new GPs

2001

January 23-26	expert visit FS
March 16	submission of proposal for continued project
March 21-23	expert visit WB
April 6-13	expert visit WB
April 9-10	Final conference in Vitebsk
April 9	First meeting of GP Association; election of Board
May 13-16	expert visit WB
May 15	meeting Board GP Association + regional representatives
May 24	meeting GP peer review group

