World Health Organization
REGIONAL OFFICE FOR Europe

EVALUATION OF STRUCTURE AND PROVISION OF PRIMARY CARE IN ROMANIA

A survey-based project

Primary care in the WHO European Region

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ABSTRACT

In many countries in transition, health reforms are part of profound and comprehensive changes in essential societal functions and values. Reforms of (primary) care are not always based on evidence, and progress may be driven by political arguments or the interests of specific professional groups, rather than by sound evaluations. However, policy-makers and managers today demand evidence of the progress of reforms and the responsiveness of services. The implementation of two combined WHO tools, the Primary Care Evaluation Tool and the Primary Care Quality Management Tool aim to provide a structured approach towards this by drawing on the health systems functions such as governance, financing and resource generation, as well as the characteristics of a good primary care service delivery system: accessibility, comprehensiveness, coordination and continuity. This report gives an overview on the findings for Romania.

The project was launched in Romania in 2009 and implemented in 2010 in the framework of the 2010–2011 Biennial Collaborative Agreement between the WHO Regional Office for Europe and the Ministry of Health of Romania, an agreement that lays out the main areas of work for collaboration between the parties. Further partners were the Netherlands Institute for Health Services Research (NIVEL) – a WHO Collaborating Centre for Primary Care –, the Romanian Centre for Health Policies and Services and other stakeholders in the health system of Romania, such as national policy experts, managers, medical educators, primary care physicians and their patients.

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Keywords
PRIMARY HEALTH CARE
EVALUATION STUDIES
HEALTH SYSTEMS PLANS – organization and administration
HEALTH CARE REFORM
HEALTH POLICY
QUESTIONNAIRES
ROMANIA

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ACRONYMS

BCA	Biennial Collaborative Agreement between the WHO Regional Office for Europe and Member States
CIS	Commonwealth of Independent States
CHPS	Centre for Health Services and Policies
CME	continuing medical education
DHA	District Health Authority
DHIH	District Health Insurance House
DPHD	District Public Health Directorate
EU-15	European Union Member States before May 2004
EU-25	European Union Member States after May 2004
GDP	gross domestic product
GP/FD	general practitioner/family doctor
NAFM	National Association for Family Medicine
NAGPE	National Association of GP Employers/Entrepreneurs
NGO	nongovernmental organization
NHIH	National Health Insurance House
NIVEL	Netherlands Institute for Health Services Research
PCET	Primary Care Evaluation Tool
PCQMT	Primary Care Quality Management Tool
PHA	Public Health Authority
RH	reproductive health
SDR	age-standardized death rate
STI	sexually transmitted infection

ACKNOWLEDGEMENTS

The World Health Organization (WHO) Regional Office for Europe expresses appreciation to all those who contributed to the achievements of this project, particularly to the Ministry for Health of Romania.

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The project is grateful for the participation of all patients, family doctors, general practitioners, field workers and local organizers throughout the country.

FOREWORD

Primary health care embodies the values and principles that WHO pursues in its worldwide effort to help countries strengthen their health systems to make them more equitable, inclusive and fair. WHO renewed its commitment to global health improvement, especially for the most disadvantaged populations, in *The world health report* 2008, which urges countries to strengthen primary health care as the most efficient, fair and cost-effective way to organize a health system. The title of the report underscores the urgency of its message: Primary health care – Now more than ever.

The European Region has a particularly strong legacy – starting with the Declaration of Alma-Ata in 1978 – in strategies for health that are based on scientifically sound and socially acceptable interventions, promote solidarity, equity and active involvement of various sectors as well as civil society. Over the past 30 years, health in the 53 WHO European Region Member States has improved considerably overall, despite significant changes in the patterns and trends of disease occurrence, demographic profiles and exposure to major risks and hazards in a rapidly evolving socioeconomic environment. In addition, the Region has seen trends towards more integrated models of care and greater pluralism in the financing and organization of health systems. Governments are continuing to rethink their roles and responsibilities in population health and the organization and delivery of health care, and the new European policy for health – Health 2020 – is an example of such reflection. It offers practical pathways for addressing current and emerging health challenges in the Region, and reiterates that primary health care stands out as one of the pre-eminent instruments for integrating prevention into the wider health system.

This report evaluates primary care developments in Romania, using a methodology that characterizes a good primary care system as one that is comprehensive, accessible, coordinated, and ensures continuity. The methodology further assesses whether primary care service delivery is supported by adequate legal and normative framework, financing mechanisms, human resource strategies, supply of appropriate facilities, equipment and drugs, and effective leadership. The report thus offers a structured overview of the strengths and weaknesses of a country's organization and provision of primary care services – including the voices of the professionals and patients concerned – to interested policy-makers and stakeholders. We at the WHO Regional Office for Europe hope that this report will inform the further primary care reform in Romania, which will bring health care closer to people's needs and expectations.

We thank the many collaborators, particularly the Ministry of Health of Romania, who have generously contributed to this project with their ideas and insights. We also would like to gratefully acknowledge the financial assistance of the Netherlands Ministry of Health, Welfare and Sport in the framework of the Partnership Programme between the WHO Regional Office and the Netherlands.

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EXECUTIVE SUMMARY

This report summarizes the results of the WHO Primary Care Evaluation Tool, which was launched in 2009 and implemented nationwide in Romania in 2010 in the framework of the 2010–2011 Biennial Collaborative Agreement (BCA) between the WHO Regional Office for Europe and the Ministry of Health of Romania, an agreement that lays out the main areas of work for collaboration between the parties. Further partners were the Netherlands Institute for Health Services Research (NIVEL) – a WHO Collaborating Centre for Primary Care –, the Romanian Centre for Health Policies and Services (CHPS) and other stakeholders in the Romanian health system, such as national policy experts, institutes for medical education, regional authorities, primary care physicians and their patients.

The Primary Care Evaluation Tool (PCET) addresses both supply- and demand-side aspects of primary care. It is intended to support ministries of health and other stakeholders in monitoring the progress of their primary care-related policies and reforms and to set new priorities on the basis of evidence-based information with the aim of further strengthening primary care. For the application in Romania, the PCET was combined with elements of another WHO tool – the Primary Care Quality Management Tool (PCQMT). The focus of the PCQMT is on structures, mechanisms and activities that serve to maintain and improve the quality of primary care services.

Methods

The underlying methodology for the design of the PCET was derived from the WHO 2000 Health Systems Framework (*1*), which indicates that the performance of a health system is determined by the way its functions are organized. The health system functions are stewardship, resource generation, financing and service provision. The framework of the PCET encompasses these four functions, together with the key characteristics of primary care services, including accessibility, continuity of care, coordination of care and comprehensiveness. Furthermore, for each of the primary care functions and characteristics, a number of key dimensions and subthemes were identified, and, in a second step, translated into one or more indicators or appropriate proxies. Aspects of quality of health services are related to all health system functions, but mechanisms to assure the quality and their management are major elements of the stewardship function. Such elements include a vision of quality; regulation, procedures and routines; and the use of feedback information.

In order to evaluate the complexity of primary care systems, information is gathered on different levels, and from the demand side as well as the supply side. The combined tool that we used therefore consisted of three instruments: a questionnaire concerning the status of primary care at the national level, a questionnaire for family doctors (FDs) and general practitioners (GPs)[1] and a questionnaire for their patients. Together, the three questionnaires covered the functions identified and the dimensions and items derived from the WHO 2000 Health Systems Framework. The questionnaires for FDs/GPs and patients were pre-structured, with pre-coded answers. The questionnaire for

1 Family doctors (FDs) are physicians who have completed a specialization in family medicine. General practitioners (GPs) have completed an internal medicine training but not a specialization in family medicine.

the national level contained both pre-structured and open-ended questions, as well as statistical data to be filled in.

The evaluation was undertaken in 2010 on a national scale in Romania. For the purpose of the evaluation the country was subdivided in the three broad historical regions, Moldova, Muntenia and Transylvania. The three questionnaires were respectively completed by a group of national policy experts and other stakeholders in the health system, FDs/GPs and patients who visited them. Data were processed and analyzed in August and September 2010. The draft report was discussed at a validation meeting in Bucharest on 19 October 2010.

The survey approach implies that results rely on self-reported behaviour or experiences of FDs/GPs and their patients. Furthermore, reports of involvement of FDs/GPs in certain services for their patients do not imply a measure of quality. Although this study has been implemented nationwide using sound representative samples, the applied methodology implies that results are estimations. Given the size of the samples in this study, confidence intervals should be taken into account: for the FD/GP survey +/- 4.9% and for the patient survey +/- 2.3%.

Results

National results

These results were obtained from the health system questionnaire and interviews with national policy experts and health professionals.

Stewardship / governance

Implementation of a primary care pilot programme aiming at a new way of financing and a shift towards independent providers in both primary and secondary care was started in 1994, addressing major problems such as inefficiencies due to overemphasis on hospital services; inequity of and poor access to basic services and inadequate primary care funding and staffing (especially in rural areas).

A major step forward in health care reform was the Social Health Insurance law (Law 145/1997), which transformed GPs into independent providers, directly contracted for their services by the District Health Insurance Houses (DHIH). According to the law, the Ministry of Health and the National Health Insurance House (NHIH) develop an annual national framework contract (issued through a Governmental Decision) that lays out the entitlements of the insured population and the conditions for all providers, including FDs/GPs, to deliver medical care under the social health insurance system.

Another important milestone in the professionalization of family medicine and primary care in Romania was the 2006 Health Reform Law, which explicitly dealt with family medicine.

In 2008, a vision for the integration of health services and providers was issued by the Presidential Commission for Health, published in the document A Health System Focused on Citizens' needs, mentioning the need to strengthen primary care as an essential element of health sector reform. The following priorities were formulated: the development

of multidisciplinary teams with a focus on community based services, an increase in the diversity of primary care services and investment in human capital via extra capacity planning and development of appealing career programmes. The document also stressed the importance of adequate information and communication technology, proper evaluation of practices using a coherent system of quality indicators and extra investments in the practices' infrastructure.

To enable the realization of the priorities, the document stipulated that the budget for primary care should be raised from 10% towards 15% of the total budget of the National Health Insurance House.

The remuneration of FDs/GPs, most of whom are self-employed, consists of a mix of capitation fees and fees for services. Fees are related to the number and age of registered people and can be higher depending on the location (urban or rural) and hardship conditions. The mean annual turnover per FD/GP is estimated to be €32 000, from which nurses' salaries and various other practice costs and taxes need to be deducted to arrive at net income. No contractual remuneration applies for practice costs and investments, for instance in equipment. FDs/GPs can generate additional resources to provide privately paid services, which constitute a very small proportion of revenue, however.

Human resources

Almost one-third of all active physicians are contracted as a FD/GP in primary care. All 12 (public and private) medical universities in Romania offer a three-year postgraduate training programme in family medicine, enrolling about a quarter of all medical graduates. However, not all of them aspire to a career as an FD; a significant number of trainees withdraw during the residency programme, as they are preparing for residency examinations in other medical specialties.

The proportion of active nurses in primary care is much smaller (12.6%) than the proportion of physicians. Only 7.7% of midwives work in primary care.

Quality management

The quality of care is monitored by a number of mechanisms, such as routine inspections of medical files, mandatory licensing, feedback on services, utilization of NHIH listed resources and drugs. However, beyond these formal mechanisms the landscape of professional development and quality assurance is wanting: there is no integrated quality assessment programme for primary care; some clinical guidelines have been developed for FDs/GPs but are not widely used and there are no guidelines for primary care nurses.

Service provision

The government uses norms to control the volume of FD/GP services. Results from the patient survey suggest a discrepancy between these norms and daily practice (for instance in the yearly FD/GP patient contact rate). At an estimated 10%, the referral rate seems to be high. In urban areas it is even higher, at about one in eight. Important indicators like hospital admissions and drug prescriptions by primary care physicians were not available.

Primary care physician and patient results

These results were obtained from the FD/GP and patient questionnaires.

Accessibility of care

Almost three quarters of the patients live near the practice, with travel times of no more than 20 minutes. Nevertheless, FDs/GPs made few home visits. Their working hours were usually around the standard 40 hours per week. Few FDs/GPs (around 10%) reported staff shortages in their area, suggesting a fair distribution of FDs/GPs over the country. FDs/GPs and patients reported that same-day consultations were easily available. For some other aspects FDs/GPs tended to be somewhat more positive than patients. For instance, two-thirds of FDs/GPs indicated they offered evening hours at least once a week, while this was observed by only less than half of the patients. Saturday openings were still rare and FDs/GPs with a website are still an exception. Forty-five per cent of patients found the physical access of the premises for disabled people or users of a wheelchair was not sufficient.

Although most primary care services are free of charge, there seem to be financial obstacles nonetheless. Two thirds of patients indicated they had to (co-)pay for drugs prescribed by the GP; one fifth reported paying for a home visit, and one fifth for a visit to a medical specialist after referral. Ten per cent reported having delayed or abstained from a FD/GP visit for financial reasons.

Coordination of care

Single-handed practice is the dominant form, encompassing almost 7 out of 10 FDs/GPs, who work only with an obligatory nurse. Regular personal meetings among primary care professionals are relatively rare: well over half of the FDs/GPs have meetings with their nurse and other FDs/GPs, but other primary care specialties are rarely met. Regular meetings with medical specialists at the secondary level were also rare, but FDs/GPs easily find them for advice. FDs/GPs are generally seen as health care gatekeepers; almost all patients indicate first visiting them before going to a specialist.

Continuity of care

Almost 80% of the patients were with their FD/GP for more than 3 years. Almost all were satisfied about the availability of their own FD/GP although only half of the latter had evening openings and very few (17%) were available on weekends. Clinical records seemed to be well kept by FDs/GPs and 70% use a computer to that end. However, many had problems retrieving specific categorical data from their information system, which suggests that they are not using well developed information systems. A national database which should have provided a frame for developing more extensive software turned out to focus only on financial management. Only a quarter of the FDs/GPs used a computer for financial administration or booking patient appointments. Referral letters to medical specialists were widely used, but a majority of patients reported that when visiting a doctor other than their own, there appeared to be insufficient information.

Comprehensiveness of care

In general, FDs/GPs were reasonably equipped, but the very sparse availability of some items, like an emergency kit, vision chart and otoscope, raises questions about the possibility of providing a comprehensive set of primary care services. It may even be worrisome that almost half of all FDs/GPs (45%) answered they had no or insufficient access to laboratory and X-ray diagnostic facilities. In rural areas the situation was even worse.

The clinical service profile of FDs/GPs showed stronger and weaker areas. They appeared to be strong in the treatment of diseases, but the role as the first contact with varying health and related problems can be much improved. In particular, FDs/GPs were obviously not the first contact for non-medical problems (such as mental and psychosocial problems). And this observation was confirmed by more than half of the patients. FDs/GPs reported extremely limited activity in the provision of services in the field of medical technical procedures and prevention. FDs/GPs seem to prefer making referrals for screening and vaccinations rather than performing the services themselves. Half of the FDs/GPs reported to be strongly involved in mother and child health services, more in rural areas than in urban areas. FDs/GPs seemed to be active in health promotion. Most patients said that their FD/GP spoke about it, in particular about healthy eating and physical exercise.

Quality assurance

More than half of the FDs/GPs reported not using clinical guidelines frequently. Complaint procedures were generally used, but patient satisfaction surveys were reported by only half of the FDs and one-third of the GPs. Interviews with community representatives to learn their satisfaction with primary care services were not frequent. Around 40% of the FDs/GPs reported job satisfaction interviews. Most FDs/GPs had clinical guidelines at their disposal, but half of the FDs/GPs did not receive updates or revised versions. The most frequently used professional development activities were searching medical information on the Internet and reading medical journals. Informal contacts with colleagues were an important additional source of information. Such contacts and professional reading were clearly more frequently reported than activities like contributing to clinical guideline development or conducting research. Urban FDs/GPs were more often involved in guideline development, research and investigation of patient satisfaction, whereas their rural colleagues were more often involved in peer consultation, reading medical journals or searching on the Internet.

Results from inspection of medical files by authorities or the health insurer were reported by 56%, making this the most frequently reported form of external feedback. Feedback about referrals, medicine prescriptions and the quality of patient records were mentioned by well over 40% of the FDs/GPs, while one third indicated getting feedback on professional development. Overall, rural FDs/GPs more frequently reported receiving feedback than did their urban counterparts.

Selected indicators

Table 1 provides an overview of some key statistical findings.

Table 1. Selected primary care indicators in three regions in Romania, 2010

Function	Selected proxy indicators	Findings*
Stewardship /Governance	Department in Ministry of Health specifically dealing with primary care	No
	GPs reporting having patient complaint procedure in the practice	FDs 91.6% GPs 89.3%

Function	Selected proxy indicators	Findings*
Financing	GPs who are self-employed (based on survey)	76%
	Patients reporting copayments for drugs prescribed in primary care	64.7%
Resource generation	Proportion active physicians working in primary care	29.5%
	GPs having completed specialization training	88.3%
	Average age of FDs/GPs	49.5 years
	Time reported spent on professional reading (per month)	FDs19.7 hours GPs 22.3 hours
	Medical universities with a department of family medicine Total number of professors in family medicine	12 (all) 8
	Medical equipment available to FDs/GPs (from a list of 30 items)	19.5 items
	FDs/GPs reporting no or insufficient access to laboratory facility	Urban: 33.2% Rural: 53.9%
	FDs/GPs reporting no or insufficient access to X-ray facility	Urban: 33.2% Rural.: 52.3%
	FDs/GPs with a computer in the practice	FDs: 97.8% GPs : 91.5%
Service delivery	Proportion of patients living within 20 minutes travel from FD/GP practice	70.8%
• Access to services	Average number of registered patients per GP	Urban: 2045 Rural: 1897
	Average number of patient consultations per day per GP	26
	Average number of home visits per week per FD/GP	6.8
	Average working hours of FDs/GPs per week	Urban: 39.4 hrs Rural: 41.0 hrs
	Average length of patient consultations	19 minutes
	Number of contacts with FD/GP reported by patients per year	7.7 visits per yr.
	FD/GP offering evening opening at least once per week	63 %
	Patients reporting same day consultations possible if requested	92.8%
	Referral rate to to secondary specialists (as a proportion of all office and home care contacts)**	FDs: 11.32% GPs: 8.82%
	Referral rate to secondary specialists by region**	Moldova: 13.3% Muntenia: 10.9% Transylvania: 10.2% Total: 11.0:%
• Coordination	FDs/GPs sharing premises with other GPs	31.6%
	FDs/GPs reporting regular meetings with practice nurses	53.6%
	FDs/GPs reporting regular meetings with pharmacists	23.0%

Function	Selected proxy indicators	Findings*
• Continuity	FDs/GPs reporting routinely keeping full medical records	FDs: 89.7% GPs: 93.6%
	Patients reporting being assigned to their FD/GP (not freely chosen)	1.3%
	Patients reporting having been with this FD/GP for at least 1 year	93.9%
• Comprehen-siveness	FDs/GPs reporting frequent use of clinical guidelines	Moldova: 47.1% Muntenia: 39.3% Transylvania: 56.6% Total: 47.8%
	FDs/GPs' role in first contact care for 18 selected health problems (1=never; 4=always)	FDs: 2.57 GPs: 2.55
	FDs/GPs' involvement in treatment of 19 selected diseases (1=never; 4=always)	FDs Urban: 2.99 Rural: 3.28 GPs Urban: 2.79 Rural: 3.48
	FDs/GPs' involvement in the provision of a selection of 16 pre-ventive and medical-technical procedures (1=never; 4=always)	1.33
	FDs/GPs' coverage of public health activities (based on 8 items = 100%) on a routine basis	Performing the service: 21.9% Referring for the service: 47.4% TOTAL: 69.3%
	FDs/GPs performing cervical cancer screening	Moldova: 11.0% Muntenia: 13.6% Transylvania: 15.5% Total: 13.8%
	FDs/GPs providing family planning / contraception services	Moldova: 74.0% Muntenia: 46.3% Transylvania: 52.3% Total: 53.6%
	FDs/GPs providing routine antenatal care	Moldova: 95.9% Muntenia: 85.9% Transylvania: 85.8% Total: 87.7%
	FDs/GPs performing TB screening	Moldova: 13.7% Muntenia: 13.6% Transylvania: 11.0% Total: 12.6%
	FDs/GPs having regular meetings with local authorities	18.8%
• Quality assurance	Available number of clinical guidelines developed with family medicine inputs	7
	FDs/GPs regularly receiving updated or revised versions of guide-lines	29.6%
	FDs/GPs frequently using clinical guidelines	48%
	FDs/GPs investigating patient satisfaction	47.7%
	FDs/GPs receiving external feedback on their referrals	44%

*Findings on primary care physicians and patients are based on surveys among 405 FDs/GPs and 1800 patients, respectively.
** Calculation based on reported contacts and referrals; self-referrals not included.

Recommended policy action[2]

Governance and regulation

Priority for primary care

Primary care should continue to be a high priority, with FDs as its core. Stakeholders should be actively involved in a continued reform process coordinated by the Ministry of Health.

> Much has been achieved in family medicine in Romania. FDs have been accepted and patients are positive about their role and services. At the same time, possibilities for improvement are obvious and these should be jointly addressed by a ministry with a vision (and probably a separate department for primary care) and cooperative professional organizations and educators.

Further development of the FD gatekeeping role

The effectiveness of FDs' gatekeeping role should be improved by critically reviewing self-referrals, more closely monitoring referrals to medical specialists and hospitals and introducing other relevant incentives for physicians as well as patients.

> Although official data on referrals and primary care initiated hospital admissions were not available, survey results point to high referral rates, a limited first contact role and opportunities to expand the range of primary care services. FDs had even higher referral rates than GPs. Involvement of FDs and GPs in prevention, medical procedures and public health tasks were far from optimal.

Human resource policy and planning

An active policy should be developed for human resources in the (primary) health system, including a planning mechanism to foresee future workforce needs.

> More than half of the current FD/GP workforce in Romania, the large majority of whom are women, has passed the age of 50 years and will retire in the near future. Emigration of physicians may be another ground for increased demand for doctors in the future. Not just the outflow should be examined, but also the inflow side (medical education). The number of FD trainees is decreasing and some of them will choose another speciality. Finally, changes in demography and family structure may change medical demand in the future. Forecasting the needs for medical staff can ensure that the health care system will be able to adequately respond to the needs of the population.

Regulating independent practitioners

Regulation for FDs/GPs should be tuned to their employment status.

> The large majority of FDs/GPs in Romania are independently established with the status of entrepreneur. Well chosen contracting and incentives can make the best of the system's advantages. Regulation for independent practitioners should respect (and make use of) their entrepreneur status. FDs/GPs in Romania are subject to

2 Recommendations are based on information gathered among experts at the national level, observations made during site visits and in the surveys among FDs/GPs and patients.

strict regulations, for example concerning working hours and the number of patient contacts, which seems unproductive and not in keeping with the potential of independent practice. District authorities, on the other hand, have little means to manage the quality of services and to enforce accountability of FDs and GPs in their area.

Health service quality management

It should be determined whether central and peripheral administrators have sufficient means (and use them) to steer primary health care services.

Several instruments to maintain and improve the quality of services appear to have been applied. Between 40 and 50% of the FDs/GPs reported having received feedback on inspection of medical files, referrals to medical specialists or prescriptions. Despite these instruments, referrals are high, guidelines could be better used and the range of services in primary care could be improved. So, either the available instruments are insufficient or they are not well used. It is possible that DHIH and district health authorities have low capacity carrying their role of quality guardians.

The role of nurses

A more independent role of primary care nurses should be developed, which will expand the possibilities of primary care and may compensate for a possible reduced supply of FDs/GPs in the future.

Each FD/GP in Romania is obliged to employ a nurse, but the potentials of these nurses are not well used. Nurses are currently highly involved in work that can be delegated to administrative staff. Nurses should be retrained as (semi-) independent health professionals fulfilling preventive tasks and routine monitoring of chronic disease patients.

Information systems

Information in primary care should be improved and currently available information should be better used. An approach to reducing the lack of information can be to promote practice-based research, coordinated by professors in family medicine (in line with a recommendation made below).

Results suggested that currently FDs/GPs' clinical information systems are not well developed, or are at least unable to produce information for planning. Because of a lack of coordination and harmonization, available information at the practice level can hardly be used for evaluation and research. However, such information is needed for feedback to FDs/GPs and local authorities and for professional development. Furthermore, information is only used in a limited way. Data collected by the NHIH, if more freely available, could be a valuable source of information for health policy and other purposes.

Education and professional development

Professional skills

It should be ensured that FDs/GPs knowledge and skills are commensurate with their formal tasks.

The high referral rate of FDs/GPs to medical specialists and the low involvement level in a number of preventive activities and medical procedures may point to an erosion of professional skills. Furthermore new tasks may require new skills (for instance, communication, collaboration, practice management, health advocacy). Skills assessment could be incorporated into the continuing medical education (CME) accreditation system and the FD curricula.

Needs-based CME

CME should be guided by the real educational needs of physicians and nurses, based on population needs, rather than by their personal preferences. Competences should be assessed and integrated more explicitly in CME.

The survey showed that FDs/GPs are free to decide which CME programme to attend. There is no need to reduce this freedom, but FDs/GPs should be given insight into gaps in their competence. Guidance should help them to make an informed CME choice that will likely result in improved competence.

Clinical guidelines

The systematic development of clinical guidelines should be promoted and stimulated, including the production of guidelines with inputs from daily practice. Guidelines should be updated regularly, and be well distributed and integrated with CME. For effective implementation, the attitudes of FDs and GPs towards the use of guidelines should be taken into account.

The survey showed that the use and acceptance of clinical guidelines left something to be desired. Adherence is sometimes influenced by a limitation in prescribing drugs or limitations to directly sending patients for certain investigations. However, there are other obstacles to the use and adherence that should be taken seriously. In the development and implementation of clinical guidelines the relevant professional associations and educators should have a major role. The government is better suited for a facilitating and supervising role. The use of and adherence to guidelines should be evaluated regularly.

Practice-based research in primary care

Research in primary care and family medicine should be promoted by facilitating the development of research at FM departments of universities.

The position of FM as a speciality is still relatively weak. Even the conditions for practice-based teaching are sub-optimal. Experiences in other countries have shown that FM teaching practices are good places for clinical research and health services research. PhDs in FM are important for further expanding the knowledge base and professional development of FDs and primary care in general.

Financing and incentives

Incentives

FDs/GPs should be stimulated to improve their competence and the quality of care through newly created financial incentives.

Incentives should be introduced to increase the likelihood of specific desired performance or outcomes. It is also important to encourage FDs/GPs to better cooperate and develop interdisciplinary teamwork and to create and offer opportunities for training on new skills.

Voluntary insurance and financial barriers to access

Current private payments and their effect on the use of essential health care services should be investigated, in particular in relation to vulnerable groups. It should furthermore be considered whether the introduction of voluntary health insurance for health services not covered or partly covered is a remedy against high and fluctuating health expenditures by individual patients.

Ten per cent of the patients indicated not having visited or having delayed visiting their FD/GP for financial reasons in the past 12 months. Copayments will undoubtedly grow in the future and this may increasingly create barriers to access. Copayments may accrue to people with low incomes and poor health.

Service delivery

Coordination and integration

Coordination and collaboration among all medical, paramedical and social disciplines that together constitute primary care should be stimulated, taking into account possible resistance among FDs/GPs.

Primary care is more than just FDs/GPs and their nurses. At present primary care in Romania seems to be highly fragmented. Seen from the FD/GP perspective, the survey has shown an almost complete absence of structured interdisciplinary collaboration. FDs/GPs seem to cherish their freedom at the expense of integrated care provision. They are not in favour of group practices, and multidisciplinary health centres are beyond their horizon. A newly developed active policy, shared by the government, local authorities, professional associations and medical universities could create models compatible with a currently persisting aversion to structures that are perceived "collectivist".

Comprehensiveness: the breadth of FD/GP services

A more comprehensive profile of services delivered by FDs/GPs should be actively promoted.

The survey has disclosed clear gaps in the service profile of FDs/GPs. The role of FDs/GPs as the entry point and first contact was limited, in particular concerning social and psychological problems, suggesting unmet needs in these areas. A lot can be improved in the field of minor surgery and other medical procedures likely to be performed (at much greater cost) in hospitals or emergency rooms. In this respect limitations from the framework contract and other regulations seem to play a restrictive role. Prevention and certain public health tasks are also suitable for transferral to the primary level. As taking up services not previously offered requires new knowledge and skills, the expansion of tasks also has educational implications.

Continuity: out-of-hours FD/GP care

An out-of-hours primary care system provided by FDs/GPs and coordinated with emergency services and hospitals should be actively developed.

As their working hours are strictly regulated FDs/GPs are usually not available during evenings, nights and weekends. Outside office hours, an incomplete and diverse network of FD/GP out-of-hours posts (called 'permanences') is providing primary care services. As this is not enough, many people refer to hospitals and emergency departments or call an ambulance, although they do not need specialized services. This situation is neither efficient nor effective and leads to medical overconsumption. International examples show that high-quality FD/GP-based out-of-hours services can be organized efficiently enough to suit both the FDs/GPs and the population.

1. EVALUATING PRIMARY CARE: BACKGROUND AND APPLICATION

1.1 The theoretical framework of the PCET and PCQMT

1.1.1 Why evaluate primary care?

Although the strengthening of primary care services is a priority of health reforms in many countries, the background and motivation of reforms vary from region to region. In western Europe, emphasis on primary care is expected to address rising costs and changing demand resulting from demographic and epidemiological trends, whereas countries in central and eastern Europe, as well as those formerly part of the Union of Soviet Socialist Republics are struggling to improve the performance and cost effectiveness of their entire health systems. Primary care, which used to be poorly developed or nonexistent in those countries, is now being developed to that end and to bring adequate and responsive health services closer to the population. Such health care reforms are part of profound and comprehensive changes in essential societal functions and values (*2*).

Evaluations and performance measurements increasingly play a role in health care reforms. Stakeholders need this information to guide their decisions in steering the health system towards better outcomes (*3*). In the past, reforms were not always based on evidence, and progress was often driven by political arguments or the interests of specific professional groups, rather than by the results of sound evaluations. This situation is changing. Stakeholders in health care, governments not the least, are increasingly held accountable for their activities and this requires evidence, for instance on the progress of reforms.

In addition, demographic and epidemiological changes require health system adaptation, including evaluation of the responsiveness of health services from the patients' perspective. Such evaluations generate information about access and convenience of services, how patients are treated by health staff, how patients perceive information and communications that can impact their behaviour and well-being and how their care is managed, at the primary care level or beyond.

Further, evaluations and performance assessments should be explained within the respective (country) context. Only then can performance information serve as a direct input into policy making and regulation. However, the role of governments goes beyond the direct use of information. The stewardship role also implies that a necessary flow of information is generated and made available to other stakeholders in the health care system, and that the necessary analytical capacity is available (*3*).

A final major requirement of evaluations and performance assessments is to start from a proper developmental framework to ensure the relevance of the (proxy) indicators and the good coverage of identified areas. The following sections describe the framework used to develop the PCET.

1.1.2 Primary care evaluation and the health systems framework

A health system can be defined as a structured set of resources, actors and institutions related to the financing, regulation and provision of health actions that provides health

care to a given population. Health action is conceived as any set of activities whose primary intent is to improve or maintain health. The overall objective of a health system is to optimize the health status of an entire population throughout the life cycle, while taking account of both premature mortality and disability (*4*).

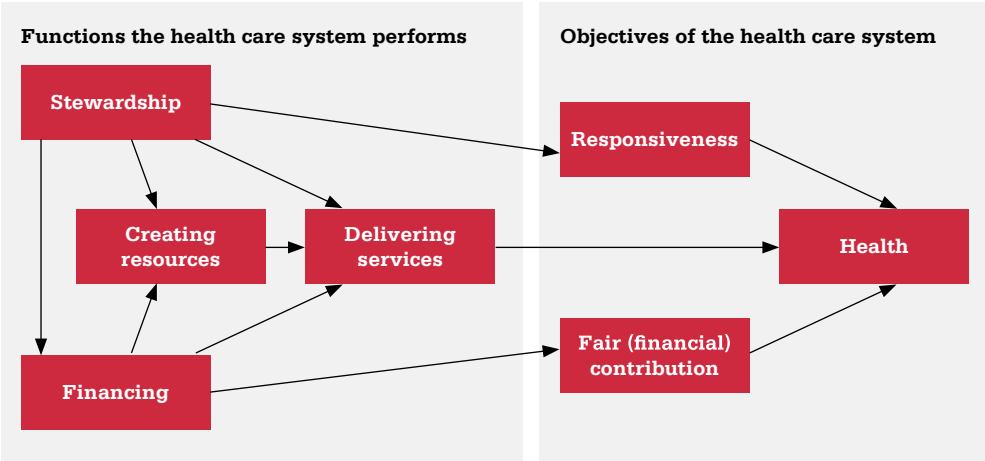
Health systems aim to achieve three fundamental objectives:

- improved health (e.g., better health status and reduced health inequalities);
- enhanced responsiveness to the expectations of the population, encompassing respect for the individual and client orientation; and
- guaranteed financial fairness on both sides with protection from financial risks resulting from health care) (*1,4*).

The level of attainment of these goals ultimately reflects the performance of the system as a whole. However, as there are national variations in both health conditions and health systems, the country context needs to be taken into account when comparing the performance of health systems. Thus, the measurement of performance should cover both goal attainment and available resources and processes.

The WHO health system performance framework (see Fig.1) indicates that performance is determined by the way the key functions of stewardship, resource generation, financing and service provision are organized (*4*). Other approaches to performance measurement can be found in the international literature (*5–8*), but they all use similar insights or related concepts. The four functions can be applied to the whole health system of a country with specific sub-characteristics for primary care, or to primary care only.

Fig. 1. WHO health system functions and objectives



1.1.2.1 Stewardship

Stewardship is an overriding function (but broader than regulation), in that it oversees all basic health system functions, having direct and indirect effects on the outcomes of a health system (*1*). Stewardship encompasses the tasks of defining the vision and

direction of health policy, exerting influence through regulation and advocacy and collecting and using information. It covers three main aspects: a) setting, implementing and monitoring the rules for the health system; b) assuring a level playing field for purchasers, providers and patients; and c) defining strategic directions for the health system as a whole. Stewardship can be subdivided into six subfunctions: overall system design, performance assessment, priority setting, regulation, intersectoral advocacy and consumer protection (*4*). In short, stewardship deals with: governance, information dissemination, coordination, and regulation of the health system at various levels.

1.1.2.2 Creating resources

Any level of a health system needs a balanced variety of resources to function properly, but these have to be further developed (and expanded) in order to sustain health services over time and across levels and geographical areas. The resources needed encompass physical assets (equipment, facilities), consumable supplies, human resources and knowledge/ information. It is crucial that the quantity and quality of human resources be adequately matched to the demand for services across the various health care levels and equitably distributed across the country. Naturally, to ensure quality of care, the skills and knowledge of health providers need to be up-to-date and compatible with developments in technology and evidence-based medicine. Policy development for human/ physical resource planning, and a regulatory framework for assuring high quality service provision and consumer protection fall under the stewardship function – however, the workforce volume and distribution and professional development are usually measured under the resource generation function.

1.1.2.3 Financing & incentives

In general, financing deals with the mobilization, accumulation and allocation of funds to cover the health needs of the people, individually and collectively, in the health system (*9*). The financing function is defined by Murray and Frenk (*4*) as "the process by which revenues are collected from primary and secondary sources, accumulated in fund pools and allocated to provider activities". Three sub-functions can be distinguished: revenue collection, fund pooling, and purchasing. Revenue collection means the mobilization of funds from primary sources (households, firms) and secondary sources (governments, donor agencies). There are a number of mechanisms through which funds can be mobilized, e.g. out-of-pocket payments, voluntary insurance rated by income, voluntary insurance rated by risk, compulsory insurance, general taxes, earmarked taxes, donations from nongovernmental organizations and transfers from donor agencies. In order to share and reduce health risks, funds can be pooled through various forms of health insurance. The allocation of funds to cover the costs (staff, durables and running costs) of specific health service interventions by providers (institutional or individual) is purchasing (*4*). The way these subfunctions are organized and executed impacts access to health services.

1.1.2.4 Delivering services

Service provision involves the mix of inputs needed for the production process within a specific organizational setting leading to the delivery of health interventions (*4*). It relates to preventive, curative and rehabilitative services delivered to individual patients and to services aimed at larger populations (e.g. health education, promotion) through public and private institutions. Providing services is what the health system does (and there are four key characteristics that define "good provision"; see below) – it is not what the health system is.

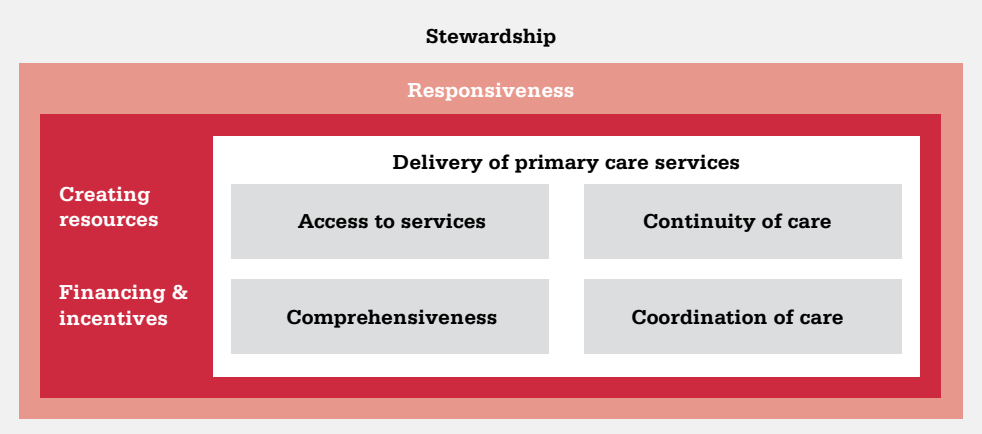
1.2 The Primary Care Evaluation Framework

The characteristics of primary care vary from country to country, and there are different definitions of what constitutes primary care (see also Annex 2). However, a comprehensive or well-developed primary care system has the following characteristics:

Primary care is that level of a health system that provides entry into the system for all new needs and problems, provides person-focused (not disease-oriented) care over time, provides care for all but very uncommon or unusual conditions, and coordinates or integrates care provided elsewhere or by others. (*10*)

The Primary Care Evaluation Framework (see Fig. 2) from which the PCET is developed, encompasses the four functions of a health care system (as mentioned above), combined with the four key characteristics of primary care services that are part of service delivery, as derived from the above definition.

Fig. 2. The Primary Care Evaluation Framework



1.2.1 Access to services

In general, access to health services can be defined as the ease with which health care is obtained (6). Alternatively, it can be defined as "the patients' ability to receive care where and when it is needed" (*11*). There are various barriers of a physical, psychological, sociocultural or financial nature that can restrict accessibility. Included in the PCET scheme are, for instance, geographical access (distance to and distribution of general practices) and organizational access (office opening hours, distant consultations, timeliness), as well as financial access (costs incurred by patients via cost-sharing, copayments).

1.2.2 Continuity of care

Primary care interventions should be geared to patients' health care needs over a longer period and cover successive episodes of care. A general definition of continuity is the follow-up from one visit to the next (*12*). WHO provides a more comprehensive definition, which takes into account the (possible) involvement of various health care providers, by emphasizing:

> (...) the ability of relevant services to offer interventions that are either coherent over the short term both within and among teams (cross-sectional continuity), or are an uninterrupted series of contacts over the long term (longitudinal continuity). (*11*)

Several levels of continuity can be distinguished: first, informational continuity of an organized body of medical and social history for each patient, accessible to any health care professional caring for the patient; second, longitudinal continuity of a specific locus where a patient customarily receives health care from an organized team of providers in an accessible and familiar environment; and third, interpersonal continuity, an ongoing personal relationship of the patient and the care provider, characterized by personal trust and respect (*13*). Furthermore, Reid et al. (*14*) add another level, management continuity, the provision of timely and complementary services within a shared management plan. The PCET scheme includes informational, longitudinal and interpersonal continuity of care.

1.2.3 Coordination of care

Particularly because primary care is the entry point to health care and often serves a gatekeeping function, the coordination of services at the primary level is an important determining element in the responsiveness of health services provision and the health system as a whole. The potential for problems in coordination is particularly evident in the primary–secondary care interface, or between curative care and other (public health) services in the field of health promotion (15). A general definition of coordination is "a technique of social interaction where various processes are considered simultaneously and their evolution arranged for the optimum benefit of the whole" (9). More specifically, it can be defined as:

> a service characteristic resulting in coherent treatment plans for individual patients. Each plan should have clear goals and necessary and effective interventions, no more and no less. Cross-sectional coordination means the coordination of information and services within an episode of care. Longitudinal coordination refers to the interlinkage among staff members and agencies over a longer episode of treatment. (*11*)

In the PCET scheme, the various dimensions of coordination encompass collaboration within the same primary care practice, within the same level among providers (e.g. FDs/GPs, community nurses, physiotherapists, etc.) and between primary care and other levels concerning consultation and referral systems.

1.2.4 Comprehensiveness

Comprehensiveness can be defined as the extent to which a full range of services is either directly provided by a primary care physician or other provider or specifically arranged elsewhere (*16*). In the primary care setting, comprehensiveness refers services comprising curative, rehabilitative and supportive care, as well as health promotion and disease prevention (*15,17*). The comprehensiveness of services is not only manifested in the specific range of services provided but also refers to the practice conditions, facilities and equipment, as well as the professional skills of primary health service providers. In addition, the community orientation of primary care workers plays a role. All these dimensions have been taken into consideration for the PCET scheme.

1.3 The Primary Care Evaluation Scheme

Taking the Primary Care Evaluation Framework (1) as its basis, the Primary Care Evaluation Scheme focuses on specific issues, policies and health care priorities relevant to countries. It consists of measurable topics and items related to essential features and national priorities for change in primary care and the facilitating conditions. The Primary Care Evaluation Scheme, which in its turn forms the basis of the PCET, is structured as follows:

- stewardship
- financing and incentives
- resource generation
- delivery of primary care, subdivided into:
  - » accessibility
  - » continuity
  - » coordination
  - » comprehensiveness of services.

Table 2 shows that, for every primary care system function, a number of key dimensions have been identified. Each dimension has, in its turn, been translated into one or more information items or proxy indicators for the dimension.

Table 2. Overview of selected functions, dimensions and information items

Function	Subfunction	Dimension	Selected Items/Proxies
Stewardship		Policy development	Policy priorities
		Professional development	(Re) accreditation system
			Quality assurance mechanisms
		Conditions for the care process	Laws and regulations
			Human resource planning
		Conditions for responsiveness	Involvement of professionals and patients in policy process
			Patient rights; complaint procedures
Resource generation		Workforce volume	Numbers and density
		Professional development	Role and organization of professionals
			Education

Function	Subfunction	Dimension	Selected Items/Proxies
			Scientific development and quality of care
		Professional morale	Job satisfaction
		Facilities and equipment	Medical equipment
			Other equipment
Financing and incentives		Health care/Primary care financing	Funding
		Health care expenditures	Expenditures
		Incentives for professionals	Entrepreneurship
			Mode of remuneration
		Financial access for patients	Cost sharing/co-payment
Delivery of care	**Access to services**	Geographical access	Distance to practice
			Distribution of physicians
		Organizational access	List size
			Provider workload
			Care outside office hours
			Home visits
			Electronic access
			Planning of non-acute consultations
		Responsiveness	Timeliness of care
			Service aspects
			Clinics for specific patient groups
Delivery of care	**Continuity**	Informational continuity	Computerization of the practice
			Medical records
		Longitudinal continuity	Patient lists
			Patient habits with first contact visits/ referrals
			Endurance of patient-provider relation-ship
		Interpersonal continuity	Patient-provider relationship
	Coordination	Cohesion within primary care	Practice management
			Collaboration among general practi-tioners/family doctors
			Collaboration of physicians with other workers
		Coordination with other care levels	Referral system/gatekeeping
			Shared care arrangements

Function	Subfunction	Dimension	Selected Items/Proxies
	Comprehen-siveness	Practice conditions	Premises, equipment
		Service delivery	Medical procedures
			Preventive, rehabilitative, educational activities
			Disease management
		Community orientation	Practice policy
			Monitoring and evaluation
			Community links
		Professional skills	Technical skills

In order to evaluate the complexity of any primary care system, information is gathered on different administrative levels, and from the supply and demand sides, i.e. from health providers and patients. Therefore, the PCET consists of three separate questionnaires, one for experts (concerning national policies and structures), one for primary care physicians, and one for patients. Together, they cover all identified primary care functions, their dimensions and information items, as derived from the scheme. The questionnaires for physicians and patients are pre-structured, with pre-coded answers. The questionnaire for the national level contains pre-structured as well as open-ended questions and also list of statistical data to be provided.

1.4 PCET development and pilot testing

Parallel development of the PCET and PCQMT started in February 2007 and was completed in May 2008, when both instruments became available to WHO in its health system support activities with Member States. The successive stage of development, from desk research via discussion of topics to pilot implementations and the international meeting to discuss experiences and results, will be explained below. The development process has been described in more detail elsewhere (*18,19,25,26*).

1.4.1 Literature review

As a first step, NIVEL researchers conducted a directed literature study on the basis of the WHO performance framework (*1*), to gather information on possible ways to operationalize the key primary care system functions. Particular attention was paid to indicators and existing performance measurement and evaluation tools and questionnaires. This resulted in a preliminary listing of dimensions and items for the tool.

1.4.2 First exchange with experts of the WHO European Region

The outcomes of the literature study were discussed in an international expert meeting held in March 2007. Major objectives of the meeting were to discuss and reach consensus on key concepts and definitions; to discuss and validate the provisional set of dimensions, proxy indicators and information items; and to improve the first version of the scheme (see Table 2) in order to develop the questionnaires. Also the first steps were taken for the pilot implementation of the provisional tools.

1.4.3 Drafting, validating and translating questionnaires

Draft versions of the questionnaires were developed on the basis of the information and feedback from the expert meeting. Comments from the experts on these versions were incorporated in new versions of the three questionnaires. These versions were subsequently tailored to the situation of the countries where the tools would be piloted: Turkey and the Russian Federation for the PCET and Uzbekistan and Slovenia for the PCQMT. Terms were adapted for the national situations and, on the request of health authorities in the four Member States, some additional questions were included on topics related to national primary care priorities. The translations were first made into the local language with inputs from an expert in primary care and subsequently back-translated and compared to the original version.

1.4.4 Four pilot implementations

The provisional PCET was pilot tested in two provinces in Turkey and two districts in the Moscow region of the Russian Federation. The provisional PCQMT was pilot tested in three regions in Uzbekistan and two regions in Slovenia. Under the supervision of the WHO Regional Office for Europe and the respective ministries of health of the pilot countries, local partners together with the NIVEL technical lead organized the details of the fieldwork, including sampling procedures, training of fieldworkers, logistics of data collection and data entry. In all countries meetings were organized with experts to discuss and validate the answers on the national level questionnaires. All data were analyzed, conclusions and policy recommendations formulated and a draft report produced, including a section on lessons learned in the pilot implementation (*18,19,25,26*).

1.4.5 Copenhagen consultation meeting

The draft reports were then discussed at a review meeting with international experts at the WHO Regional Office for Europe in Copenhagen on 14 and 15 April 2008. The review meeting resulted in a revision of the questionnaires, as follows.

- Questions were made more factual; avoiding forsaking for opinions.
- The sequence of topics and questions was reordered.
- The national level questionnaires were changed into a template for a more comprehensive background document to be prepared by a small team of local experts and subsequently discussed and validated in a focus group meeting directed by WHO and NIVEL.
- The PCET questionnaires for patients and physicians were shortened.
- The terminology and wording throughout the questionnaires were made more consistent.
- It was decided that in addition to the results of the surveys other complementary sources of information should be used, such as available literature, articles, interviews with health care workers and experts and personal observations during site visits.
- Countries were allowed to add questions related to specific national priority areas.

- Final reports would contain a set of proxy indicators.

After revision the Tools were available to be used in the countries. An implementation scheme was produced for the information of Member State counterparts, describing subsequent steps for implementation.

1.5 Implementation of the combined tools

1.5.1 The BCA context

The implementation of the combined PCET and PCQMT was part of the 2010–2011 BCA between the Romania and the WHO Regional Office for Europe. First preparations for the implementation were made during a visit of representatives of the WHO Regional Office for Europe to Romania in June 2009, at which the tools were introduced, and a national working group was installed to guide the project and comment on the draft report. As the Ministry of Health wanted to have a special focus on the assessment of primary care quality, the PCET was complemented with questions from the PCQMT (*25,26*). The official project partners of the WHO Regional Office for Europe and the Ministry of Health of Romania were NIVEL, in its capacity as WHO collaborating centre, and CHPS. Preparations for the technical implementation effectively started in January 2010.

1.5.2 Country visits for information and planning

At different stages of implementation, a team of experts from the WHO Regional Office and NIVEL paid three visits to the country. The first one took place on 23–25 June 2009, and included a preparatory mission with the following objectives:

- to conduct site visits to assess the relevance and feasibility of the application in Romania;
- to introduce the tools to the Ministry of Health;
- to inform stakeholders and building commitment; and
- to identify candidates from local research institutions to carry out the fieldwork.

A second visit took place on 22–24 February 2010, and included:

- visits to the National Society of Family Medicine (SNMF) and its Bucharest branch, the NHIH, CHPS, various FD/GP practices, and a rural FD/GP Permanence providing out-of-hours services;
- discussions of the project strategy, including target population and selection of regions and mode of sampling;
- introduction and discussion of the questionnaires; taking suggestions for changes;
- discussion of primary care issues and validation of the answers on the national level questionnaires; and

- coordination of activities with the WHO Country Office, Romania.

A third visit was made on 10–13 May 2010, dealing with:

- practice visits in Brasov and environs and to Monastirea in the Danube Valley;
- training of eight fieldworker coordinators, each to coordinate about 15 fieldworkers;
- discussion of the results of a pre-testing of questionnaires and finalization;
- further preparations for the fieldwork;
- preparations for data entry (including software adapted to the latest versions of the questionnaires);
- explanation of requirements for the fieldwork reports to NIVEL;
- discussions of CME, incentives and new developments; and
- detailing and planning of coming activities.

Information received and observations made at meetings and practice visits have been used as background for the current report.

1.5.3 Adaptation and extension of the PCET/PCQMT

In cooperation with the national working group the questionnaires were adapted for use in the Romanian context. In addition to these adaptations, questions were inserted from the PCQMT into the national level questionnaire and the questionnaire for FDs/GPs. The added questions on the FD questionnaire concerned how guideline availability, updating, and instructions as well as who should decide about courses in CME. Additions to the national level questionnaire encompassed:

- responsibilities for quality assurance management
- mechanisms and indicators for service quality monitoring
- (re)certification procedures and requirements for FDs/GPs
- interprofessional collaboration in CME courses
- continuing education for health managers
- evaluation of guideline use and CME courses and programmes
- regular assessment of professional competence of FDs/GPs and nurses.

Translated versions of the preliminary adapted questionnaires for FDs/GPs and patients were pre-tested on a limited scale, as a basis for the final versions and subsequent translations.

1.5.4 Target populations and survey approach

The target population for the physicians' survey was NHIH contracted FDs/GPs. For the patient survey the target population was visitors of FD/GP practices above the age of 14 and those accompanying visitors of younger age. It was decided that the survey would have nationwide coverage. To allow for a satisfactory regional distribution and a balanced representation stratified random samples from the FD/GP population were drawn, with strata being the nine cultural regions and five categories of urbanization. In Bucharest, subsamples relative to the population size in each of the six districts were drawn. An official list of NHIH-contracted FDs/GPs was used as the sampling frame.

A sample of 405 FDs/GPs was drawn, representing 3.6% of the total population of 11 348 FDs/GPs in Romania. To realize this sample 1000 FDs/GPs were selected to be contacted in a random order until the required number was reached. For the FDs/GPs survey the tool makes use of self-administered questionnaires distributed either my mail or personally handed over by fieldworkers if the practice was also selected for the patient survey. For the patient survey 120 FDs/GPs out of the total number of responding FDs/GPs were randomly selected. These practices were visited by trained fieldworkers who would ask the patients at the practice on that day to fill in a questionnaire. At each practice the fieldworker's task was accomplished after 15 patients had filled in the questionnaire. Patient questionnaires could be self administered or, if necessary, the fieldworker could provide support.

1.5.6 Response and analysis

After follow up by telephone the net response among FDs/GPs was 405, or 40.5%. The target of 15 patients in each of 120 FD/GP practices could be achieved, resulting in 1800 completed patient questionnaires. In Tables 3 and 4 the distribution of the realized response among FDs/GPs by urbanization categories and regions is compared to the real distribution of the FD/GP populations, with small deviations. This indicates that despite the considerable non-response, the coverage of the response across places of different urbanization and across regions has been satisfactory.

Table 3. Comparison of the study response among FDs/GPs with the real FD/GP distribution in the five urbanization categories

Urbanization	> 200 000	50 000–200 000	< 50 000	Central villages	Component villages
FD/GP population (%)	31.1	19.6	17.5	27.0	4.8
FD/GP response (%)	32.6	18.5	16.5	27.2	5.2
Difference (p – r) (%)	- 1.5	0.9	1.0	-0.2	-0.4

Table 4. Comparison of the study response among FDs/GPs with the real FD/GP distribution in the regions *

Areas	A1	A2+5	3	4	A6+9	7	8
FD/GP population (%)	16.7	20.2	11.9	12.7	22.3	10.0	6.2
FD/GP response (%)	18.0	17.5	12.6	13.6	21.0	10.9	6.4
Difference (p – r) (%)	-1.3	2.7	-0.7	-0.9	1.3	-0.9	-0.2

* Two regions with few FDs/GPs have been added to the adjacent region.
Note: The following districts belong to the identified regions:
A1. Bacău, Neamț, Suceava, Vrancea, Botoșani, Vaslui, Galați, Iași
A2+5. Argeș, Dâmbovița, Prahova, Buzău, Brăila, Giurgiu, Teleorman, Ialomița, Călărași, Tulcea, Constanța
A3. Dolj, Mehedinți, Olt, Gorj, Vâlcea
A4. București, Ilfov
A6+9. Alba, Hunedoara, Brașov, Sibiu, Cluj, Mures, Bistrița-Năsăud, Sălaj, Covasna, Harghita
A7. Maramureș, Satu Mare, Arad, Bihor,
A8. Timiș, Caraș-Severin

1.5.7 Role of fieldworkers

Fieldworkers had a crucial role in data collection from patients. As mentioned, they recruited and informed the patients and distributed and collected the questionnaires among patients and the physicians of the practices they visited. Fieldworkers and their regional coordinators were recruited and instructed by the CHPS, with training addressing the following topics:

- the context and objectives of the survey
- the basic principles and structure of the tool and the type of questions used
- the specific topics of the questionnaires
- approaching and assisting respondents and establishing a good rapport
- creating a suitable environment for patients to fill in the questionnaire
- checking readability and completeness of answers
- logistics, such as allocation to the locations, planning and transport.

1.5.8 Information gathering at the national level

A team of six experts contributed to answering the national questionnaire, from the National Institute of Public Health, NHIH, Romanian College of Physicians (2), National School of Public Health and CHPS. The answers and statistical data were forwarded to NIVEL for analysis, and served as the basis for the description of the national primary care situation in Chapter 3 of this report.

1.5.9 Data processing, analysis and reporting

Data entry was carried out under the auspices CHPS in Bucharest. A data-entry programme was designed by NIVEL, using a SPSS Data Entry Station. Raw data files were sent to the NIVEL research team for processing and analysis. A draft report with results

and preliminary recommendations was discussed in a meeting with Romanian and WHO experts in Bucharest on 19 October 2010. On the basis of suggestions for change and requests for additional information made at this meeting and comments made at the peer review, the draft report was revised. Details on the application of the PCET in Romania have been summarized in Table 5.

Table 5. Key data on the application of the PCET in Romania

Elements of the implementation	Explanation
Target groups	• FDs/GPs with NHIH contract • Patients (visiting FD/GP practices) • Health care experts (national)
Locations	• All regions and districts of Romania
Type of data collection	• FDs/GPs: survey using pre-structured questionnaires (disseminated by field workers and by mail; follow up by telephone) • Patients: survey using pre-structured questionnaires (personally handed over by trained fieldworkers) • Health care experts: mixed approach; questionnaire and meeting for validation and feedback • Practice visits and interviews with FDs/GPs
Method of recruitment / inclusion	• FDs/GPs: stratified random samples in all regions • Patients: the first 15 patients attending the practice of 120 randomly selected FDs/GPs among respondents • Health care experts: identified and recruited by local partner
Planned sample sizes	• FDs/GPs: 1000 • Patients 1 800 (in 120 FD/GP practices; each 15 patients)
Response	• Physicians 405 (40.5%) • Patients: 1 800
Instructions	• Local coordinator: methodology of sampling and recruitment; identification of study populations; lists of FDs/GPs; logistics of surveys • Field work coordinators: explanation of questions; how to approach and assist respondents; quality aspects • Respondents: introduction to the questionnaires; introduction/support to patients by fieldworkers
Fieldwork coordination	• Local coordinator: overall responsibility • Fieldworkers: information of respondents; correct administration of data collection in their facilities • NIVEL: general supervision during and after field visit
Data entry	Organized by CHPS under auspices of NIVEL
Analysis & draft reporting	NIVEL (Utrecht, Netherlands)
Validation and final report	NIVEL, with WHO Regional Office and Ministry of Health

2. INTRODUCTION TO ROMANIA[3]

2.1 The country

With an area of 237 500 m^2 and 21.5 million inhabitants, Romania is one of the larger countries in the European Union (EU), in area as well as population. As Fig. 3 shows, it is located at the crossroads of central and eastern Europe. It shares borders with Ukraine and the Republic of Moldova to the north-east and has a coastline in the south-east that connects the country to the Black Sea. Hungary and Serbia are located to the west and Bulgaria is to the south. Fig. 4 shows the historical and administrative divisions. Romania consists of 41 districts or counties, which are grouped in nine regions, also called economic development regions.

Fig. 3. Romania in Europe[4]

An historical division of the country distinguishes three parts: the east (with Moldova as the centre), the west (Transylvania and adjacent regions) and the south (with Muntenia at the centre). Where this report presents results by region, this historical division is used.

From the economic perspective Romania is still in transition from communism towards a market economy. The accession to the EU has been a significant event in this process, strongly favoured by the population. In 2004, 70% agreed that accession was a "good thing", while only 3% thought it was "a bad thing". For comparison, in the 25 European Union Member States after May 2004 (EU-25) of those days, 47% were positive and 17% negative (*32*). Most Romanians trusted the EU, and continue to trust the EU as Table 6 shows.

3 *Sources*: Vlădescu et al *(27); The world factbook (28);* Bădulescu (*29*).

4 *Source*: Wikipedia *(30)*.

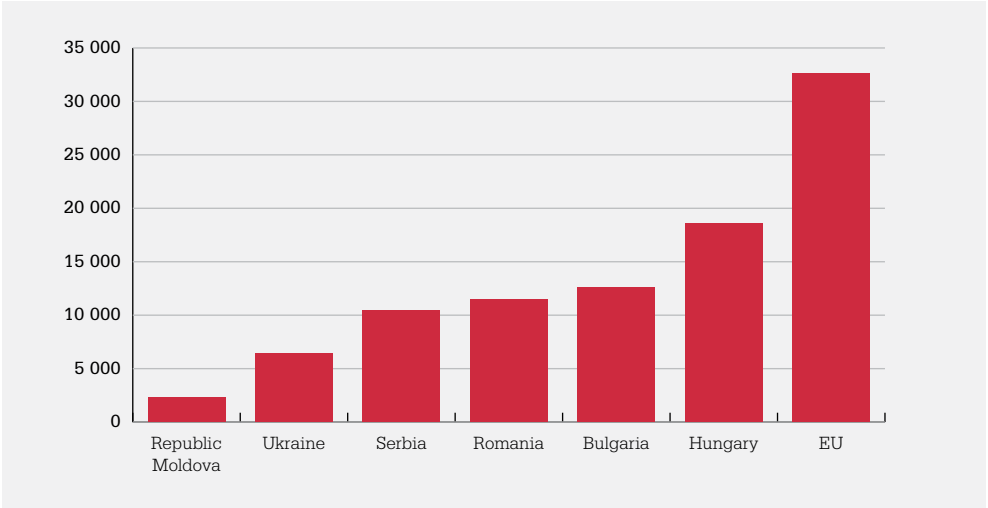
Table 6. Public trust in EU bodies in 2004 and 2009

"Tend to trust"	2004 *		2009 **	
	Romania	EU	Romania	EU
EU Parliament	66%	41%	65%	50%
EU Commission	59%	41%	58%	46%

* *Eurobarometer Survey (32).*
** *Eurobarometer Survey (33).*

Indeed, EU membership has given a strong economic impulse in the form of foreign investments and availability of EU investment funds. In combination with a rising domestic consumption this has led to strong GDP growth in recent years (6% in 2007 and 7.1% in 2008). In late 2008 Romania even had the strongest growth of all European countries. However, due to the economic crisis Romania's GDP fell by nearly 7% in 2009. Although slow recovery of the economic situation was predicted for 2010, the negative foreign trade balance, the high external debts and large budget deficits continue to threaten the country's economic development. Despite economic growth since 2004, Romania's GDP continues to be low in the EU context, as shown in Fig. 4. At present almost a quarter of the Romanian population is living below the poverty line, among the highest in the European Region.

Fig. 4. GDP per capita in 2009 in US dollars



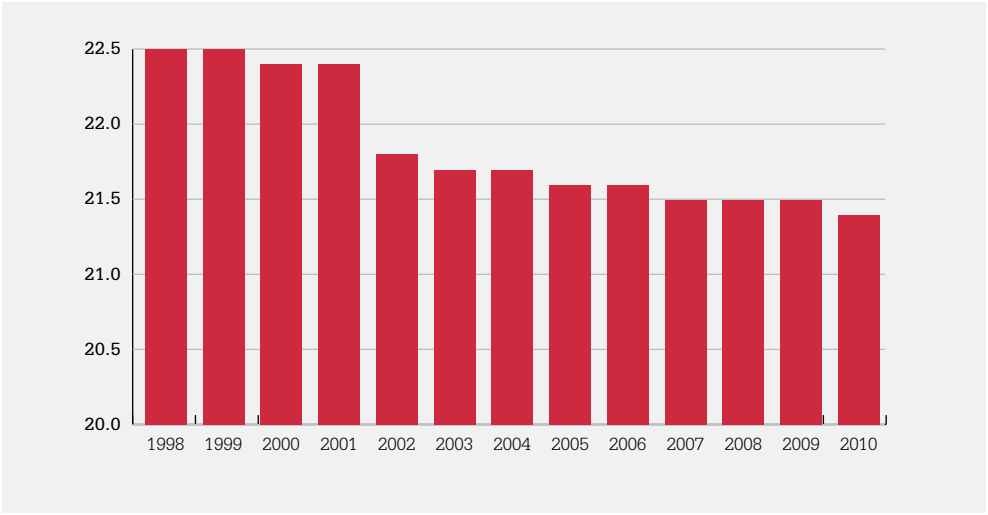
Source: world factbook (*28*).

2.2 Population and health[5]

In 2010, the population of Romania was 21.4 million. As shown in Fig. 5, during the last decade the population has been gradually shrinking, as in other countries in the region. The main causes for the declining population are a low fertility rate and large-scale emigration to more affluent EU countries.

5 *Sources*: Vlădescu *(27); The world factbook (28);* Arghisan *(35);* Falzon *(36);* Hamers *(37);* Saltman *(38).*

Fig. 5. Population of Romania 1998–2010 (in millions)

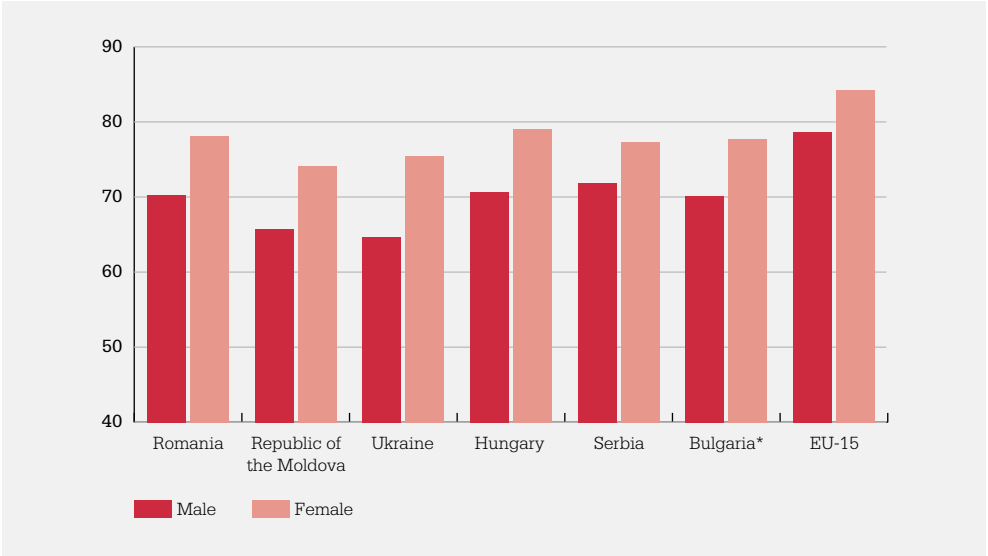


Source: WHO HFA database (*34*)

More than half the Romanian population (54%) lives in urbanized areas. The capital Bucharest is the largest city, with a population of more than 2.3 million. Almost 90% of the country's population are Romanians. Among the ethnic minorities, Hungarians are the largest group (6.6%). Estimations of the size of the Roma population, many of whom are living under deprived circumstances, vary between 550 000 to over 2 million.

As shown in Fig. 6, the life expectancies for Romanian men (69.2 years) and women (77.5 years) are comparable with those of men and women in Hungary, Serbia and Bulgaria and higher than those in the Republic of Moldova and Ukraine. However, compared with EU-15 countries (those that were European Union Member States before May 2004) Romanian men and women have a considerably shorter life expectancy (minus 8.1 years and 6 years, respectively).

Fig. 6. Male and female life expectancy at birth, 2009 (in years)



Source: European health for all database (*34*).
* 2008.

In 2009 the proportion of the population 0-14 years old still exceeded the proportion of those 65+ years old (15.1% versus 14.9%, respectively). Compared to the countries in Table 7, only the Republic of Moldova showed this phenomenon, whereas in all other surrounding countries and in the EU-15 countries the eldest age groups outnumber the youngest. However, despite this relatively high percentage of youngsters, Romania is no exception to the general European population aging trend. This is also related to the low total fertility rate.

The maternal death rate in Romania has positively developed, but it can be further reduced. Since the 1990s it declined sharply as a result of the liberalization of abortions and the introduction of a National Mother and Child Health Programme and a sharp reduction of unsafe and unskilled abortions. However, the maternal death rate still is the second highest among the countries listed in Table 7, after the Republic of Moldova, as is the case with infant mortality.

The death rate in Romania is comparable to that of the Republic of Moldova, whereas Ukraine, Hungary, Serbia and Bulgaria have higher death rates and EU-15 countries have a lower mean death rate. Death from circulatory system diseases accounts for almost half of all deaths in Romania. Romania's eastern neighbours Ukraine and Republic of Moldova, as well as Bulgaria, have higher death rates due to these diseases. The differences in mortality due to malignant neoplasm are less pronounced among Romania, its eastern neighbours and EU-15 countries and are lower in Romania than in Hungary and Serbia. The mortality rates from external injury and poisoning has been declining sharply in the last 15 years, below that of the Republic of Moldova, Ukraine and Hungary but higher than that of Bulgaria, Serbia and EU-15 countries.

Despite a declining trend in recent years, the estimated TB incidence is more than tenfold the average in the EU-15 countries and higher than in surrounding countries except the Republic of Moldova. In the late 1980s and 1990s, Romania had a major HIV epidemic in which thousands of young children living in institutions were infected with HIV through micro transfusion of blood and multiple injections with improperly sterilized equipment. Compared to this period, the current HIV incidence in Romania is relatively low and stable. Romania has a lower incidence of HIV-infections than the EU-15 countries and the prevalence of HIV is still low compared to the Republic of Moldova and Ukraine, where HIV is epidemic.

The abortion rate is, despite the introduction of the National Mother and Child Health Programme in the 1990s, still high and exceeds all neighbouring countries and EU-15 countries.

Romanians, especially the women, are modest smokers in the international comparison. Overall, around one third of the male Romanian population smokes, which is comparable to the male populations in Hungary, Italy, the Netherlands, Serbia and Spain. The percentage female smokers in Romania is comparable to that in the Republic of Moldova and Ukraine, but much lower than in Hungary, Serbia and western European countries.

Table 7. Selected demographic, health and lifestyle indicators (2009)

Indicator	Romania	Republic of Moldova	Ukraine	Hungary	Serbia	Bulgaria	EU-15
Population 0–14 years (%)	15.1	16.9	14.1	14.8	15.2	13.4 *	15.8
Population 65+ years (%)	14.9	10.2	15.8	16.5	17.1	17.4 *	17.9
Population density (per km^2)	90	105	76	108	83	68	n.a.
Live birth rate (per 1 000 pop) *	10.4	11.4	11.2	9.6	9.6	10.7	10.8
Total fertility rate (children per woman)	1.4	1.3	1.5	1.3	1.4	1.6	1.6
Death rate (per 1000 pop)	12.0	11.8	15.4	13.0	14.2	14.5 *	9.2
Maternal deaths (per 100 000 live births)	21.1	17.2	25.2	18.7	19.9	6.4 *	5.6
Infant mortality (per 1 000 live births; reported)	10.1	12.1	9.4	5.1	7.0	8.6 *	3.7
Death from diseases of circulatory system (per 100 000 pop SDR)	548.6	715.2	737.6	421.2	506.6	611.3 *	180.8
Death from malignant neoplasms (per 100 000 pop SDR)	181.4	168.4	158.2	243.2	206.6	171.6 *	165.2
Death from external cause injury & poisoning (per 100 000 pop SDR)	53.9	97.3	98.4	59.0	42.8	44.9 *	32.6
Tuberculosis incidence (estimated (per 100 000)	125	178	101	16	21	41	9
HIV incidence (per 100 000 pop)	0.7	19.7	35.4	1.4	1.8	2.3 *	6.0
Abortions (per 1000 live births)	576	359	249	463.8	323	417	229***
Regular smokers (% 15+ years)	M:32* F:9*	M:51*** F:7***	M:42* F:6*	M:37 F:27*	M:31*** F:23***	n.a.	M32/ F24**** M30/ F17***** M31/ F21******

Source: WHO HFA database (*34*).
*2008 **2007 ***2006 **** Netherlands *****Italy ******Spain

2.3 The health care system

Under the Ceausescu government, Romania had a Semashko type of health care system that was highly centrally regulated, standardized and geographically organized. Due to under-funding and inefficiency, this system was unable to meet even fundamental health needs of the population. The health status of the population deteriorated, as reflected by a decreasing life expectancy between 1975 and the beginning of the 1990s. After 1989, the new government aimed to reform the structure and organization of the health care sector through decentralization and efficiency incentives. (*39*)

2.3.1 Financing

Romania has historically committed a lower share of its GDP to health than other countries. Figures from 2008 show that it spent around 5.5% of GDP on health (4.5% public expenditure and 1% private), the lowest share among the EU countries, whose 2008 average was around 9.2% of GDP. A major turning point in the reform process has been the implementation of the Law of Social Health Insurance in 1998, which introduced compulsory health insurance linked to employment. Contributions depended on income and are paid in even shares by the insured and the employer. People without an income of their own, like children and young people, handicapped, war veterans with no income, as well as dependants of insured people were given free access to health insurance. For some special groups, like conscripts and prisoners, insurance contributions were paid through the budgets of different ministries.

2.3.2 Service provision

As shown in Table 8, the expenditure on health care services in Romania is comparatively low. Only 5.5% of the gross domestic product is spent on health care, which is considerably lower than the relative expenditures made by surrounding countries and EU-15 countries. Weighted health expenditures per capita in the EU-15 countries were five times those in Romania. Compared to surrounding countries and EU-15 countries, Romania has the lowest numbers of physicians, nurses, dentists and pharmacists per 100 000 people. Compared with the other countries in the table, the hospital bed supply is intermediate, but considerably higher than in the EU-15. Only Hungary and Ukraine have a larger number of hospital beds per 100 000 people. However, the length of stay in hospitals in Romania is relatively short. The amount of outpatient contacts per person is relatively low.

2.3.3 Primary care[6]

During the communist period, the health care system in Romania was state provided and hospital centred. Primary care was delivered through a countrywide network of dispensaries and the concept of 'family medicine' didn't exist. Members of one family (children and adults) were treated by different doctors and patients were lacking the option to choose their own doctor. In each dispensary there was a GP for adults and another one for children, several nurses – some specialized in children – a midwife and administrative staff.

After the 1989 changes, the primary care system gradually transformed into a system more and more based on family medicine. The working conditions of FDs/GPs changed; in 1994 the health reforms assigned FDs/GPs a gate keeping role and a new contracting scheme that combined a capitation and fee-for-service payments including incentives to

6 *Sources:* Scintee & Vlădescu *(40);* Vlădescu & Radulescu *(41).*

Table 8. Selected indicators of health care resources and utilization (2009)

Indicator	Romania	Moldova	Ukraine	Hungary	Serbia	Bulgaria	EU-15
Total health expenditures as % of GDP (WHO est.)	4.7 *	10.7 *	6.8 *	7.4 *	9.8 *	7.3 *	9.7 *
Total health expenditures per capita (in PPP $; WHO est.)	665 *	318 *	498 *	1419 *	838 *	910 *	3320 *
Hospital beds (per 100 000 pop)	662	615	866	714	541	660	532
Physicians (per 100 000 pop)	226	313	315	302	284	369	346
PC physicians - per 100 000 pop - as % of all physicians	83 37%	54 17%	34 11%	35 12%	71 25%	65 18%	97 28%
Nurses (per 100 000 pop)	566	750	786	621	578	421	906 *
Pharmacists (per 100 000)	55	80	n.a	57	28	n.a.	85
Dentists (per 100 000 pop)	58	45	42	49	31	86	69
Average length of stay (days) - all hospitals - acute hosp.	 7.4 n.a.	 10 8.1	 12.7 10.8	 10.5 *) 6.0 *)	 9.4 7.4	 6.5 n.a.	 8.9 * 6.7 *
Outpatient contacts per person (per year)	4.7	6.3	10.7	12.0	8.5	n.a.	7.8** 4.2*** 5.8****

Source: European Union for all database.
* 2008; ** Germany *** Denmark 2007 **** Netherlands

increase access in underserved areas and improve 24-hour availability. FDs/GPs became independent, though contracted, and run their medical practices as private entrepreneurs.

In the years following these reforms, FDs/GPs increased their output by providing more consultations and home visits, more registered patients and a better coverage of emergency care. These positive results were achieved despite the fact that between actual expenditures for primary care were systematically below the planned amounts, while the actual expenditures for hospitals were higher than the planned budget.

In recent years the expenditures on primary care are decreasing. In 2010 these expenditures were 27% lower than in 2008. (See Table 9).

Table 9. Primary health care financing 2008–2010

Expenditures	2008	2009	2010
Milions lei	1 456.5	1 104.3	1 067.4
% of total health insurance expenditure	8.8	7.2	6.1

Source: NHIH activity reports 2008–2010.

3. PRIMARY CARE IN ROMANIA: THE NATIONAL CONTEXT

This chapter gives an overview of primary care priorities, regulation and structures in Romania, including national policy and legislation, financial arrangements, workforce and education of providers, aspects of quality assurance and the role of patients. The information in this chapter is based on answers by national experts to the national level questionnaire. The results will be described according to the health system functions and dimensions used in the Primary Care Evaluation Scheme (see Table 2). This chapter serves as the context for the results of the surveys among FDs/GPs and their patients, which will be described in Chapters 4 and 5.

3.1 Stewardship/governance

3.1.1 Governmental bodies

Constitutionally, **Parliament** has a key position in the policy process, since it has the power of approval, but some health measures can be initiated by the government without direct interference of Parliament, for example, by means of emergency ordinances such as no. 150/2002, which modified the Health Insurance ACT of 1997 or the many ordinances that have amended the Health Care Reform Act of 2006.

The President's interest is a fast route to get topics on the political agenda. The President has nominated a special commission to analyze and draft an approach to developing the national health system, heavily relying on primary care principles (this was the 2008 report *A health system focused on citizen's needs*).

The Ministry of Health is responsible for ensuring appropriate health care services throughout the country. In the absence of any dedicated primary care department, its Directorate for Medical Care and Public Health Policies assumes that responsibility. There is a Committee on Family Medicine, but it has yet to be convened. The Ministry's responsibilities include:

- engaging main stakeholders in health policy and the formulation, implementation and strategy evaluation;
- carrying out broad public consultation, including the views of main stakeholders and the patients;
- ensuring transparency in the state's budgetary allocation for health;[7]
- regulating the public and private sectors and their interface;

7 Although the Ministry ceased to have direct control over the financing of most of health care in 1999, it retains responsibility for financing and managing national public health programmes, selected speciality services and investments in infrastructure and equipment.

- conducting research, policy, planning and monitoring of reform, financing, the private sector and infrastructure and equipment;

- developing the legal and regulatory framework for the health care system including the pharmaceutical sector and public health policies and services, sanitary inspection and the framework contract for all health care providers (with the NHIH); and

- developing human resource policy and capacity building for policy analysis and management.

The Ministry of Finance plays a key role in decisions about health sector measures, since its approval is required for policy document involving expenditure of public money requires the approval of the Minister of Finance, for example the budgets of the NHIH and Ministry of Health's programmes.

Furthermore, the **Ministry of Labour and Social Protection**, the **Ministry of Transport**, the **Ministry of Defence and National Security**, the **Ministry of the Interior**, the **Ministry of Justice** and the **Romanian Intelligence Agency** all have their own parallel health care systems, including separate hospitals, polyclinics and dispensaries. Two national health insurance funds exclusively deal with people working for the Ministry of Transport, the Ministry of Defence and the National Security. These funds are subject to the same regulation as the DHIHs', but their premiums are from different target populations.

Since 2002, **local governments** are the owners of (almost) all public health care facilities. Although this should enable them to have an important influence on the shape of health services in their areas, a lack of financial and human resources largely restrict this power. In practice, the role of lower level government has been very limited since 2010, when Ministry of Health and the government relaunched the reform process by delegating responsibility for the management of lower-level hospitals (360 of the 432 public hospitals) to the local authorities. However, the ongoing decentralization process has to be more regulated in order to produce the expected outcome of integrated health services based on the population and community needs. It is expected that in the near future local governments will become more and more responsible in the delivery of the health care services.

The NHIH sets the rules for the social health insurance system and co-ordinates the 42 DHIHs. It can redistribute funds among districts and has the right to impose regulations on them with the aim of maintaining the coherence of the health insurance system. Every year, the NHIH together with Ministry of Health initiates the framework contract (approved by a governmental decision) that specifies the insurance benefit package and regulates care provision. Providers, including FDs/GPs, have very limited input in negotiating the framework contract.

3.1.2 Policy development

3.1.2.1 Developments from 1989–2000

Initial decentralization and shifting towards a social health insurance based system started with the Public Administration Act of 1991, which created 42 District Health

Directorates, under the authority of an appointed political leader, responsible for the funding and managing of health services, including dispensaries. These directorates made agreements with FDs/GPs specifying standards and services. The Social Health Insurance Act of 1997 aimed at creating a decentralized and pluralistic social health insurance system in which citizens would make health insurance contributions based on their income, toward the purchase of services from providers including the newly independent FDs/GPs. The health management function and the funding function were separated at the district level. The District Health Directorates were split into District Public Health Directorates (DPAHs) and DHIHs. DPAHs, as Ministry of Health entities, became responsible for the development of public health programmes, the evaluation of health care provision and health care providers. DHIHs became responsible for premium collection (until 2002, when this was taken over by the Ministry of Finance) and reimbursement of providers, under NHIH supervision. The NHIH may also redistribute up to 25% of premiums to underfinanced districts.

Between 1995 and 2000 a number of laws and legislative measures significantly contributed to the structure and organization of health care, especially the 1996 Act on the Practice of Medical Profession, Establishment, Organization and Functioning of the College of Physicians, the Social Health Insurance Act of 1997, The Public Health Act of 1998 and the 1999 Act on the Organization, Functioning and Financing of Hospitals. These laws provided a basis for a new, more decentralized health care system, in which the roles and responsibilities of stakeholders were better defined and became embodied in regulations.

3.1.2.2 Developments from 2000–2011

Major topics addressed since the year 2000 are the further recognition of family Medicine and improving the health system's coherence by integration in primary care and substitution.

Concerning family medicine, a major step forward was the Social Health Insurance Act of 1997, which changed general practitioners into independent providers, directly contracted for their services by the District Health Insurance Houses (DHIHs). The Act instituted the framework contract defining the entitlements of the insured population and the conditions for all providers, including FDs/GPs, to deliver medical care under the social health insurance system as well as the payment and incentives system.

Another milestone in the professionalization of family medicine and primary care was the Health Reform Act of 2006, which dealt specifically with family medicine and covered almost all fields in the health care sector and included all previous legislation adapted to the Acquis Communautaire. NGOs and the College of Physicians were consulted for the drafting of the Law.

In that same year, the Presidential Commission for Romanian Public Health Policy Analysis and Development published *A health system focused on citizen' needs*, describing a vision of horizontal integration of health care providers with primary care as a key element. The document has been regarded as an important guide towards further primary care reform, although it is still waiting to be implemented. The following subjects are mentioned in the document.

- Multidisciplinary teams

  The document named the development of multidisciplinary primary care teams as a priority. Associations of two or more FDs and the forming of broader primary care teams, including nurses, midwives, social and community workers, physiotherapists and administrative personnel should be promoted, serving 3000–7000 people, according to regional demographics. This scaling up was meant to better prepare primary care for community-based services such as health promotion, prevention and rehabilitation, which have an important impact on quality and effectiveness.

- Efficiency and diversification of services

  Primary care units should be extended with specially trained nurses for minor conditions who can operate relatively independently from physicians. Furthermore, trained nurses could have an added value in patient information, for instance at phone support lines, by using specific guidelines. Larger primary care networks should have the possibility to provided additional services as a substitute for specialized services. Resources should be better allocated and the efficiency and integration of health services in primary care should be enhanced by a diversified payment method, including payments for additional services and the introduction of a global practice budget.

- Human resources and practice investments

  Extra primary care workers should be hired and career programmes instituted. A coherent sector policy for training, development and allocation policy was needed, as well as investment in the physical practice infrastructure, including diagnostic and treatment facilities meeting predefined minimum requirements.

- Information technology

  The availability of an adequate information and communication technology is another important medium-term requirement. This should improve the continuity of care, in particular if vertically integrated into hospitals and other specialties. Resources for this information technology may be made available by the NHIH, the Ministry of Health or local communities for specific services.

- Evidence-based medicine

  Primary care teams should be evaluated by a coherent system of quality indicators outlined by health authorities, referring to clinical quality as well as to other areas with direct impact on patients, such as the organization of the medical practice.

- Funding

  Investments in the physical infrastructure will be required in order to develop a stimulating environment for both staff and patients. This refers to restructuring and redesign of the current practices and to equipping them with adequate equipment, including information technology. It is recommended that minimum equipment standards be established for each level (primary team and larger network). Funding

should be provided from the Ministry, DHIHs and local authorities, for example. Private insurers, if they shall develop, should fund additional services. The total budget allocated for primary care should amount 10-15% of the total NHIH budget.

In addition to the topics mentioned above, current debate on primary care focuses on human resources, in particular on stimulating professional career development. The development of a coherent policy on training, development and allocation of human resources is part of those aims. Other actual topics are the revision of the basic benefits package and the introduction of a copayment system including certain primary care services.

3.1.3 Monitoring professionals and services

As a general condition to practice, all primary care providers in Romania must be organized in one of the following four legal structures: an individual practice, a group practice, an associated medical office or a commercial medical society with limited responsibility (Ordinance Nr.124 /1998 published in *Moniturol Oficial* Nr. 568; August 2002).

Furthermore, educational requirements for medical practice, including general practice have been regulated in the Act 95/2006 on Health Care Reform. FDs/GPs need to be certified by the Ministry of Health. Since 2008, accreditation has been delegated to the College of Physicians.

The NHIH framework contract stipulates that providers are obligated to have malpractice insurance. Furthermore limitations exist in the number of FDs that can establish in a territory and physicians need to have at least 1000 patients. Commissions consisting of representatives of the NHIH, the Public Health Authority (PHA), the College of Physicians and more recently professional and employer organizations decide about new establishments. In sum, the requirements for physicians to work in primary care are:

- a valid diploma in family medicine or to have worked before 2007 as a family physician
- a license from the College of Physicians
- registration in the PHA registry
- professional liability insurance
- at least 1000 patients (except for remote areas) to be eligible for an NHIH contract.

These requirements apply equally to physicians working as private entrepreneurs or as employees of health care centres or other medical facilities contracted to the NHIH.

Nurses need to be licensed. In addition to their educational requirements they need to be members of the Romanian Nurses and Midwifes Order. In order to recertify, a minimum amount of continuing education must have been completed. Nurses also need to have professional liability insurance. Physicians are required to employ at least one nurse, as a requirement of the NHIH framework contract.

3.1.4 CME

FDs/GPs are obliged to obtain at least 200 CME credits every five years. The College of Physicians is in charge of both the five-year evaluations and the accreditation process of the CME courses. No evaluation of the content of CME courses is available. Primary care must earn 15 CME credits each year. The Order of Nurses and Midwives supervises this certification process. For primary care managers there are no national CME programme, although different management training programmes have been developed and delivered by public institutions or NGOs with College of Physicians accreditation.

After a minimum of five years of practicing, FDs/GPs and primary care nurses can choose to have their knowledge assessed by an exam. For FDs/GPs this assessment consists of a examination by examiners appointed by the Dean of the Faculty of Medicine. Examiners are professors in internal medicine, as professors in family medicine are not available. This assessment is called a primariat for FDs/GPs and principal for nurses. After obtaining these titles, which represent the highest level of qualification, FDs/GPs and nurses can earn a higher income.

3.1.5 Conditions for the care process

3.1.5.1 Primary care workforce norms

The official norm recommended in the framework contract for the number of patients per FD/GP is 1800 (as of April 2010). However, in particular areas the practice list can be higher if no new FDs/GPs open a practice. As mentioned above, the minimum number of patients for FDs/GPs contracted with the NHIH is 1000 (although temporarily it may be lower). Having more than 2200 registered patients has been discouraged by the application of regressive points above that number. Norms for other primary care workers were not available.

3.1.5.2 Staff shortage in primary care.

Taking the country's population and the total number of contracted FDs/GPs into account, there is no nationwide shortage of FDs/GPs, but their distribution is uneven, so shortages exist in some regions (and, consequently, oversupply must exist in others). Similarly, the distribution of other professionals is not balanced and shortages of nurses, dentists, physiotherapists and pharmacists exist in some regions.

3.1.5.3 Mode of practice

Although exact data are lacking, it is estimated that FD/GP group practices are relatively rare in the country. Most FDs/GPs work in solo practices in cooperation with a nurse. About 76% of all FDs/GPs are self-employed; the others are employed by another FD/GP or a company. Although team working in primary care has been a priority, no national information was available about the proportion of FDs/GPs working in solo practice, partnerships or groups, in multidisciplinary centres, or with medical specialists. (Relevant information based on the FD/GP survey will be reported in Chapter 4).

3.1.5.4 Primary care gate keeping

With the exception of emergencies, patients are formally required first to visit their FD/GP before they can be treated by a medical specialist or any physician working in the public system. Patients can visit physicians in the private sector without referral and paid out-of-pocket. The gate keeping role of the FD/GP was strengthened in 1999 with the

introduction of out-of-pocket payments for hospital admission without a FD/GP referral. Physicians in both inpatient and outpatient settings are formally obliged to send the FD/GP who referred the patient a summary of the medical procedures, the diagnosis and treatment recommendations (called a "medical letter"). Direct consultations by physicians are possible for follow-up visits and for some specific services, such as family planning and complementary medicine (acupuncture, homeopathy and herbal treatments). Due to insufficient control of the implementation of the framework contract and regulations, the gatekeeper role of FDs/GPs is not fully realized in day-to-day practice.

3.1.6 Conditions for responsiveness

These conditions refer to role of stakeholder organisations; organizations of patients; and rights of patients (including patients' free choice of physician and complaint procedures for patients).

3.1.6.1 The role of stakeholders

The **College of Physicians** started to function in 1997 and has an important role in the obligatory registration of physicians and a consultative role in health policy. Although medical professions' direct political influence via the College is limited, individual physicians are well represented in Parliament, political parties and the Ministry of Health. For example, approximately 50 members of Parliament have a medical background in the hospital sector, including the President and Vice President of the Health Commission. World Bank studies in 2001 pointed to the influence of the medical professions in planning and implementation of health care reforms. The College is in charge of licensing physicians, CME programmes and quality of care (mainly via malpractice complaints).

The **National Society for Family Medicine (NSFM)** is the national professional association of FDs, with branches in almost all districts of the country. It is involved in professional development projects and is the main primary care advocate organization. It works in close cooperation with the National Association of Employers in Family Medicine and the College of Physicians in negotiating contracts for primary care doctors.

The **National Association of GP Employers/Entrepreneurs (NAGPE),** also called the National Association of Practice Owners, aims to develop family medicine services. As a representative of FDs/GPs who own their practices, the Association has become more and more involved in matters related to family medicine development and the dialog with authorities.

The **Order of Nurses and Midwives** is the most established professional association. By law, nurses and midwives are obliged to belong to the Order in order to be allowed to practice their profession. The Order has two main roles: monitoring the way nursing and midwifery are practiced and contributing to policy development regarding these two professions.

The **Trade Union of Nurses (Sanitas)** is particularly influential in promoting nurses' interests. It is part of a national trade union led by a former president of Romania, which convinced the government to require FDs/GPs to hire at least one nurse regardless their number of patients.

Medical universities are not important actors in health care reform per se, but they represent a significant pole of power under current legislation. Clinical professors are automatically nominated as heads of departments in the university hospitals, and in this role they have an important influence in hospital resource utilization. They are also in charge of physician training, recruitment and promotion. Furthermore, a large number of senior public officials in the Ministry of Health and other entities been recruited from the medical academia. For example, most Ministers of Public Health and high level advisors have also been members of the medical faculty.

Although universities have adapted their structures and curricula since the establishment of the family medicine speciality, the influence of FDs in student education and postgraduate education is still limited. The curricula are said to be outdated and have not been developed by FDs. The written and practical speciality examination at the end of the FD residency is assessed by internal medicine professors, since as FD professors are scarcely available. The position of FDs who train FD-trainees continues to be weak; they are not affiliated with the university, are not remunerated for this job, have no pedagogical training or definite curricula to follow.

The **National Centre for Family Medicine Studies (NCSFM)** was established in 2001 as relatively small organization (54 FD trainers) aiming at cultivating primary care professionalism. It become involved in professional matters since FDs/GPs felt that professional development in family medicine was insufficiently dealt with by other bodies, usually dominated by physicians with other backgrounds. Working in close cooperation with other international organizations, the NCSFM Foundation provided FDs/GPs with a coherent vision and pilot projects contributing to improving the quality of care and strengthening the status of primary care and family medicine.

3.1.6.2 The role of NGOs and patient organizations

NGOs usually focus on delivering specific health and social services, for instance in areas like health promotion, reproductive health, family planning, HIV/AIDS and community care. Several NGOs have developed training programmes for FDs/GPs and PHC nurses in these priority areas, based on adult education methods and tools. Although these training programmes have been recognize by the College of Physicians for CME credits, the NGOs' activity stopped when the respective projects ended.

Patient associations also have influence, via their official right to attend meetings of Ministry of Health special consultative committees. Furthermore, the Ministry has consultations with major patient umbrella organizations like The National Union of Organizations of HIV Affected People (UNOPA), the Federation of Cancer Associations, the Federation of Diabetes Associations and the National Alliance of Associations for Rare Diseases. Some of these organizations have signed partnership agreements with the Ministry, for example, the partnership between the Federation of Cancer Associations and the Ministry to develop a national cancer plan. In 2008, several patient associations created the Coalition of Organizations of Patients with Chronic Diseases (COPAC), aiming at have one stronger voice to address health policy-makers.

Patient representation in decision-making processes occurs via NHIH and DHIH administrative councils. Patients are represented in the NHIF Administrative Council by representatives from trade unions, employers' associations and the National Council

of the Elderly (5, 5, and 2 members, respectively, out of 17 members in total). The DHIH has representatives from these three groups as well (3, 3 and 2, respectively, out of 11 members).

3.1.6.2 Position of patients

There are four laws outlining the protection of patients' rights: the Patients' Rights Act of 2003, the Personal Data Act of 2001, the Act on Mental Health Promotion and Protection of Persons with Psychiatric Disorders of 2002 and the Act on AIDS Prevention and the Protection of People Living with HIV/AIDS of 2002. NGOs were actively involved in the preparation of these laws and in their implementation as authorities are starting to involve these patient organizations in the decision making process.

The Patients' Rights Act and the Personal Data Act contain provisions obligating providers to display statements of patients' rights in the medical units and health authorities to issue annual compliance reports. Both Laws establish the following patient rights.

- The right to be informed

  Patients have the right to be informed about available health services, the qualifications of health care providers and the regulations about the functioning of medical units. They should also be informed about their health status in a polite, non-technical manner.

- The right to informed consent

  Patients have the right to provide informed consent on the medical services they receive and the consequences of treatment denial should be explained to them. Consent should also be obtained from the patient for involvement in medical teaching or research. If the patient doesn't have the capacity to be involved in the decision-making process, consent should be obtained from his or her legal representative.

- The right to confidentiality

  Patients have the right to the protection of confidentiality of information regarding their health status, the treatment received and personal information. Patients also have the right to privacy concerning family or personal life, unless this interferes with treatment or puts their lives or those of others in danger.

- The right to health care

  Patients have the right to health care, including palliative care. The services should be provided by accredited personnel or medical units, as close as possible to the patient's environment. Rationing of scarce resources should be done on medical criteria. When pregnancy puts a woman's life in danger, the woman's right to life prevails.

The Act on Mental Health Promotion and Protection of Persons with Psychiatric Disorders adopted the principles of the1991 United Nations General Assembly Resolution on the Protection of Persons with Mental Illness and the Improvement of Mental

Health Care, including provisions for the use of the least restrictive treatment option, confidentiality and informed consent. This law has a special section on the rights of people with mental disabilities, recognizing their health and health care rights, as well as all civil, political, economic, social and cultural rights as mentioned in the Universal Declaration of Human Rights and other international conventions and treaties. The Act on AIDS Prevention and the Protection of People Living with HIV/Aids of 2002 describes entitlements of patients with HIV along with measures to combat the spread of the disease.

Since reforms introduced in 1998, patients in Romania are allowed to freely choose their GP. They can change to another FD/GP after a minimum period of six months of registration.

Primary care centres or practices are not formally obliged to have a complaint procedure, but some practices do use complaints boxes. Although the Patients' Rights Act and Ministry of Health order 386 describe the right to treatment and information, they don't stipulate the procedural aspects of complaints. In cases where patient rights are disrespected and a complaint is delivered, the Discipline Commission of the College of Physicians will deal with it.

3.2 Resource generation

3.2.1 Numbers and distribution of primary care staff

The distribution of providers in Romania is unequal. Although the number of FDs/GPs is sufficient as a national norm (one FD/GP per 2000), there are regional shortages of FDs/GPs, nurses, dentists, pharmacists and physiotherapists. Table 10 shows the number of primary care workers in different disciplines, the average number of people per worker and the proportions of the total number of active health professionals working at the primary level.

Table 10. Professionals working in primary care

Active primary care providers	Number	Number of pop. per worker	As a % of all physicians, nurses, midwives*
FDs/GPs HFA DB total (2006) Health Insurance House (2009)	 14 835 11 348	 1 449 1 894	 35.8% 29.5% (Ministry of Health)
PHC nurses (2006)	10 596	2 029	12.6
PHC midwives (2006)	378	56 878	7.7
Nurses specialized in paediatrics (2006)	935	22 995	1.1

* The total number of active physicians: 41 455 (according to Ministry of Health: 38 449); active nurses: 85 785; active midwives: 4913
Source: European health for all database (*34*).

According to Ministry of Health data, the population per FD/GP is almost 1900. The number of FDs/GPs in Romania mentioned in the European health for all database (*34*) is higher, so the population per FDs/GPs is lower (1449). Based on the Ministry of Health data, 30% of all active physicians in Romania have been contracted as

primary care FDs/GPs. The WHO percentage is somewhat higher (36%). In 2006 the number of active primary care nurses was 10 596, 12.6% of all active nurses in the country. Only 378 midwives are working in primary care, or 7.7% of the total number active in the country. Finally, 935 paediatric nurses, or 1.1% of all nurses are active in primary care.

3.2.2 Professional development and education

3.2.2.1 Professional organizations

At the national level, three professional organizations are relevant for FDs/GPs. First, like all physicians in Romania, FDs/GPs are obligatory members of the Romanian College of Physicians, which is in charge of physician registration. More important for the development of family medicine is the NSFM, which started as a scientific organization, but nowadays fulfils a broader role, including the warranty of working conditions. A third organization, the National Association of Employers in Family Medicine, is also active in professional development in family medicine but also defends financial and material interests of primary care employees. At the national level, the National Centre for Family Medicine Studies was established as a scientific society but has started to be involved in the development of clinical guidelines. Besides these national organizations, county associations of FDs are found in almost all counties.

3.2.2.2 Professional journals

There are some professional journals dedicated to family medicine, such as: Family Medicine Online, the Informative Bulletin for Family Physicians and Family Doctors Agenda, while Conexiuni Medicale devotes an important segment to family medicine.[8] The quarterly Medical Practice is issued under the authority of the Romanian Academy for Family Medicine, under the Romanian Academy for Medical Sciences.

3.2.2.3 University medical education

All 12 (public and private) medical universities in Romania offer three-year postgraduate training programmes in family medicine (Table 11). Fifteen months are spent in a primary care practice. Not all departments of family medicine are chaired by a professor. The total number of professors in family medicine is currently eight, and not all of them have a background in family medicine. Almost a quarter of all medical graduates (24.5% in 2008) have chosen to enrol in postgraduate training in family medicine. The number of medical graduates choosing family medicine has slightly decreased in recent years, as has the overall number of medical graduates. A significant proportion of the FM trainees choose the residency programme as a temporary solution while preparing examinations in other specialties or choosing other career options.

8 Respectively found at: http://www.medfam.ro/mf/mf/index.htm, http://www.medfam.ro/bimf/, http://www.amf-b.ro/agenda_medicului_de_familie_2009.html and http://conexiunimedicale.ro.

Table 11. Medical universities providing postgraduate training in family medicine with programme lengths

Location	Duration FM postgraduate course (years)	Months in primary care (months)
MEDICAL UNIVERSITIES		
Arad	3	15
Brasov	3	15
Bucharest	3	15
Cluj	3	15
Constanța	3	15
Craiova	3	15
Galați,	3	15
Iași	3	15
Oradea	3	15
Sibiu	3	15
Târgu Mureș	3	15
Timișoara	3	15

The educational requirements for medical practice, including general practice, were established in the Health Care Reform Act of 2006. FDs/GPs need to be certified by the Ministry of Health. Since 2008, the accreditation procedure has been delegated to the College of Physicians.

3.2.3 Quality assurance

3.2.3.1 Mechanisms to assess the quality of PHC services

The following primary care quality assessment mechanisms are in use.

- Routine inspections of FD/GP medical files are annually done by the DHIHs and the Ministry of Health, as part of the primary care contracting procedure. The information is mainly used in connection with the financial implementation of the contracting framework. Medical files may also be inspected in the event of complaints, with recommendations or legal action ensuing as deemed suitable.

- Formal investigations of shortcomings and significant events are undertaken by The College of Physicians and the Ministry of Health if so mandated by an inquiry.

- Mandatory licensing of contracted FDs/GPs and primary care facilities is done nationally by the College of Physicians, the District Health Authority (DHA) and the DHIHs.

- Peer visitation is done by the NAFM. Informal assessments of primary care practices have also been included in studies, but there is no evidence that they have resulted in quality improvement activities.

Benchmarking for primary care practice does not exist in Romania.

3.2.3.2 Indicators for effectiveness and efficiency

Both the Ministry of Health and the NHIH assess quality aspects of certain primary care services routinely, and the Centre for Health Services organizes surveys on a voluntary basis. The Ministry routinely measures outcomes in mother and child health care by means of six indicators, derived from the National Health Programmes, namely the numbers of: pregnant women registered for follow-up, children receiving iron prophylaxis, children receiving vitamin D prophylaxis, pregnant women with malformation and genetic risk tested for anaemia, pregnant women receiving informational support and vaccines administered.

The NHIH gathers monthly data in electronic form on drug prescriptions, services provided and utilization of resources of each individual GP. Data about primary care drug consumption is discussed by the College of Physicians and pharmaceutical companies, and is evaluated every year during the negotiations of the framework contract, and the data influence the level of drug reimbursements.

Every two years, voluntary CHPS measure patient satisfaction and/or the physician opinions of the health care system. The results are usually debated in open meetings with stakeholder representatives like the College of Physicians, Ministry of Health, NHIH and patients' associations.

3.2.3.3 Monitoring the quality of services

How quality reporting should take place is regulated by law, but no tools are described to measure the quality. In the absence of explicit primary care quality control schemes, educational requirements and financial incentives are meant to influence quality. An example is the CME scheme for FDs/GPs, whereby each primary care physician has to collect 40 CME credits per year in order to be recertified by the College of Physicians after every 5 years of practicing. The updated version of the certification needs to be delivered to the NHIH for yearly renewal of the contract. The pay-for-performance system for immunization (until 2010) offered a financial incentive for immunizations above the 95% rate. Likewise, until 2010 there were extra payments for DOTS of TB and active identification of cases. Medical offices are evaluated every two years by the NHIH as part of the contracting process, but this is an administrative control process in which providers are obligated to hand over office establishment documents so it cannot be regarded as a care quality improvement instrument.

3.2.3.4 Evidence-based medicine and clinical guidelines

The concept of evidence-based medicine has only recently been in scientific societies and therefore has not been widely implemented in primary care. However, it is part of the vision developed by the Ministry of Health, the Presidential Commission on Health and the NAFM.

According to The Health Care Reform Act of 2006, responsibility for the production and implementation of clinical guidelines is in the hands of the Professional Association of Physicians. In 2009, the Ministry of Health decided to shift the coordination of guideline production to the National School of Public Health and Health Management. Clinical guidelines developed under the coordination of the National School have not been widely implemented so far.

The NCSFM has developed seven clinical guidelines for FDs/GPs on Type 2 diabetes, hypertension, lower back pain, urinary tract infections, prenatal care, asthma and depression. These guidelines were produced by multidisciplinary teams of FDs/GPs and medical specialists and include lists of scientific publications. In collaboration with the CHPS, the NCSFM has also contributed to the development of the Romanian Pulmonary Approach in Lung Health (PAL) Guideline, implemented in six districts. The clinical guidelines are freely available on the Internet and about 3000 copies have been either sold or freely distributed among FDs/GPs. Except for pilot projects, systematic evaluation of the use of and adherence to these guidelines has not been undertaken so far. No national primary care guidelines or protocols for nurses are in place.

3.3 Financing aspects of primary care

Of the total national health care budget, 8.8% was spent on primary care in 2008, 7.2% in 2009 and 6.1% in 2010. The NHIH minimum package of services is regarded as comprehensive, covering most services FDs/GPs can provide. The prescribed drugs are subject to copayments and follow a certain reimbursement scheme with 50, 90 and 100% reimbursement. Certain medicines cannot be prescribed by FDs/GPs.

FDs/GPs in Romania are paid a mix of age-related capitation fees and fees for service. The highest fee was allocated until recently for children under the age of 1 year, while the lowest fee is allocated for patients between 5 and 59 years old. In 2010, the fees for child care have been reduced in parallel with the change of the age groups (0–3 years and 4–59 years). Until 2010, immunization, monitoring and check-ups during pregnancy and early childhood (0–18 months), TB care, family planning and follow up of patients with chronic diseases were included in the fee of services. Since the new contract in April 2010, they are included in the capitation fee. Certain chronic diseases are now paid under a programme funded by the Ministry of Health. Before 2010, immunization was subject to pay-for-performance. If a GP had realized the immunization target of 95% of the identified eligible population, the reimbursement of the last 5% was doubled, and as mentioned above, there were incentives associated with TB treatment.

The gross income of FDs/GPs depends on the location of the practice (urban, rural), the number of registered patients, the structure and profile of the population and hardship conditions. Disaggregated data on the average income of FDs/GPs are not available. However, if the total NHIH expenditures for primary care are divided by the number of contracted FDs/GPs, it would result in an annual turnover of €31 900 per GP, and payment of nurses, accountants, maintenance, taxes and other practice costs must come from this amount. Data from the NAFM and NCSFM show an average annual turnover of €24 000 per FD/GP practice. For comparison, hospital-based physicians have an annual income around €12 000.

3.4 Aspects of primary care service delivery

Results of the surveys reported in Chapters 4 and 5 will throw much light on primary care service delivery. This section presents some aggregated data.

The number of patient contacts per 1000 population is 2970, implying that patients on average have three contacts with their FD/GP and that an average FD/GP with a practice of 2000 patients would have almost 6000 patient contacts per year. The working hours for FDs/GPs are strictly regulated by ministerial rules, so overwork is not common in general practice.

4. FAMILY DOCTORS AND GENERAL PRACTITIONERS

This chapter contains the results of the survey among FDs and GPs in the regions Moldova, Muntenia and Transylvania. Most of them have completed or are completing a specialized FM training programme to become an FD. The results described are based on experiences and opinions of the physicians The survey covered the following topics: workload and use of time, access and availability of services to patients, aspects of quality of care, use of clinical information, coordination and cooperation, available medical equipment, and several dimensions of clinical task profiles.

4.1 Respondent profile

The survey had a total of 405 responding primary care physicians: 73 in Moldova, 177 in Muntenia and 155 in Transylvania. In all three regions a majority of respondents had finished FM training (83%) (see Table 12). Furthermore, the majority of physicians (Moldova: 57%, Muntenia: 70%, Transylvania: 71%) worked in urban practices.

Table 12. Numbers of urban and rural FDs and GPs

Physicians	Moldova (N=72)		Muntenia (N=176)		Transylvania (n=154)		Total (N=402)	
	Urban	Rural	Urban	Rural	Urban	Rural	Abs.	%
FDs	37	30	101	43	103	41	355	88.3
GPs	4	1	23	9	6	4	47	11.7
TOTAL	41	31	124	52	109	45	402	100

Table 13 shows that 80% of the responding physicians were female and 20% were male. Eighty-eight per cent of male and female physicians have completed or are completing the specialized FD training.

Table 13. Gender of urban and rural FDs and GPs

Physicians	Moldova (N=72)		Muntenia (N=176)		Transylvania (n=154)		Total (N=402)	
	Urban	Rural	Urban	Rural	Urban	Rural	Abs.	%
FDs								
Female	33	25	80	35	83	28	284	70.6
Male	4	5	21	8	20	13	71	17.7
GPs								
Female	2	1	19	8	5	3	38	9.5
Male	2	0	4	1	1	1	9	2.2
TOTAL	41	31	124	52	109	45	402	100

Table 14 provides a number of key profile data of the physicians and their practices. In Moldova 67 physicians (92%) have completed or are completing specialized FD training, in Muntenia 144 (81%) and in Transylvania 144 (93%).

One of the characteristics of the system based on family medicine is that primary medical services for children as well as adults are provided by the same physician. However, in Moldova and Muntenia on average only one in four physicians (27% and 24%) and in Transylvania less than one in five (16%) said they serve patients of all age groups.

Table 14. Summary of characteristics of FDs/GPs

Physicians	Moldova (N=73)			Muntenia (N=177)			Transylvania (n=155)		
	Abs.	%	Valid N	Abs.	%	Valid N	Abs.	%	Valid N
Male FDs/GPs	11	15.1	73	34	19.2	177	36	23.2	155
Physicians with specialized FD training	67	93.1	72	133	81.1	164	144	93.5	154
Physicians serving adults and children	20	27.4	73	45	24.4	177	25	16.1	155
Physicians under the age of 50 years	38	52.8	72	50	30.5	164	73	47.4	154
Independent / self-employed FDs/GPs	69	94.5	73	166	93.8	177	149	96.1	155
Average age (years)	Urban	Rural*		Urban	Rural*		Urban	Rural*	
FDs	47.3	47.4		50.2	50.0		49.4	46.1	
GPs	57.5	35.0		55.8	51.5		54.7	44.3	
Average years working									
FDs	18.0			18.8			17.5		
GPs	20.4			23.2			17.4		

*Including small towns and rural areas.

The average age of all respondents was 49.5 years (47.8 years in Moldova, 51.0 years in Muntenia, 48.6 years in Transylvania), and, on average, physicians with specialized PG training were almost four years younger than physicians without specialized PG training (48.9 vs. 53.6). In Moldova 53% of the respondents were under the age of 50 years, in Muntenia 31% and in Transylvania 47%. The large majority of respondents (94.8%) are independent/self-employed physicians. The average experience as a FD or GP is 18.5 years, 18.2 in Moldova, 19.6 in Muntenia and 17.5 in Transylvania.

4.2 Accessibility of care

Table 15 is an overview of various aspects of workload. The size of the practice (the number of patients), varies by region and type of practice. FD practices in Moldova and Transylvania are on average larger than GP practices, but in Muntenia it is the other way around. The average list sizes we found were within the national norms (1800–2200 patients per FD/GP). As shown in the bottom line of the table, only 6 FDs/GPs in Moldova (9%), 10 in Muntenia (7%) and 14 in Transylvania (10%) report staff shortage for more than

six months. On average less than one in ten of the GPs (9%) also report staff shortages. Most often mentioned are shortages of nurses (23 in total), followed by support staff (19).

Table 15. FDs/GPs' workload and use of time, by region

Aspects of workload	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	Mean	Valid N	Mean	Valid N	Mean	Valid N	Mean	Valid N
List size (number of patients)								
• FDs	2 353	68	1 968	134	1 833	104	1 989	342
• GPs	2 014	5	2 192	31	1 636	10	2 052	46
Patient consultations per day								
• FDs	27.9	68	25.4	144	26.5	143	26.3	355
• GPs	24.6	5	23.9	32	25.9	10	24.4	47
Home visits per week								
• FDs	7.3	66	7.8	143	6.6	143	6.8	352
• GPs	5.2	5	7.1	31	7.3	9	6.9	45
Working hours per week								
• FDs	39.5	68	39.0	141	40.4	142	39.7	351
• GPs	34.4	5	41.3	32	43.0	10	41.9	47
Hours reading per month								
• FDs	26.5	67	17.5	141	18.6	140	19.7	348
• GPs	32.0	5	23.1	32	15.1	10	22.3	47
Hours following courses per month								
• FDs	7.2	63	8.7	137	8.2	139	8.2	339
• GPs	4.3	3	6.8	29	7.3	8	6.7	40
Hours administration per week								
• FDs	7.3	60	7.3	138	9.5	139	8.2	337
• GPs	21.2	5	5.5	32	22.5	10	10.8	47
Reporting staff shortages								
• FDs	6	68	10	145	14	145	30	358
• GPs	1	5	2	32	1	10	4	47

Overall the workload of FDs is somewhat larger than that of the GPs. However, the latter show longer working weeks except in Moldova. The average number of hours spent per month on reading professional journals or medical information, including the Internet, is much higher among GPs (22.3 hours per month) than among FDs (19.7 hours). FDs report to spend more time on training or following courses than GPs (8.2 and 6.7 hours per month respectively). Time usually spent on administration is much higher for GPs than for FDs in Moldova and Transylvania.

Table 16 shows the same overview of various aspects of workload as the previous table, by level of urbanization. In Muntenia and Transylvania urban physicians have larger list sizes on average and in all three regions urban physicians have more patient consultations per day than rural physicians. The number of working hours per week is on average lower for urban physicians compared to rural physicians, except in Moldova. In Transylvania rural physicians spent more time reading professional journals or medical information than urban physicians, while in Muntenia urban physicians spend more time on training and following courses. No serious staff shortages were reported in any of the regions.

Table 16. Urban and rural FDs/GPs' workload and use of time, by region

Aspects of workload	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	Mean	Valid N	Mean	Valid N	Mean	Valid N	Mean	Valid N
List size (number of patients)								
• urban physicians	2 324	41	2 089	116	1 890	106	2 045	263
• rural physicians	2 344	31	1 824	49	1 659	43	1 897	123
Patient consultations per day								
• urban physicians	29.7	41	25.8	123	27.5	107	27.1	271
• rural physicians	25.0	31	23.4	52	24.3	45	24.1	128
Home visits per week								
• urban physicians	7.5	39	6.8	121	6.2	107	6.7	267
• rural physicians	6.8	31	6.9	52	7.6	44	7.1	127
Working hours per week								
• urban physicians	42.3	41	38.1	121	39.8	107	39.4	269
• rural physicians	36.5	31	42.5	51	42.4	44	41.0	126
Hours reading per month								
• urban physicians	22.6	40	19.6	121	17.3	105	19.1	266
• rural physicians	31.5	31	16.3	51	20.2	44	21.4	126
Hours following courses per month								
• urban physicians	6.7	36	8.8	116	8.0	103	8.2	255
• rural physicians	7.4	29	7.4	49	8.5	43	7.8	121
Hours administration per week								
• urban physicians	6.7	36	7.3	118	9.8	103	8.2	257
• rural physicians	10.4	29	6.4	51	11.5	45	9.1	125
Reporting staff shortages								
• urban physicians	5	41	7	124	9	109	21	274
• rural physicians	2	31	5	52	6	45	13	128

In all three regions patients can generally see the physician the same day (see Table 17). Almost two thirds of the physicians reported opening hours in the evening at least once per week, weekend opening at least monthly is reported by one in ten of respondents on average. If practices are closed, it is standard (95%) that an emergency telephone number is provided to patients. Group sessions (or "clinics") for specific patient groups are reported by most respondents; most frequently mentioned were sessions for patients with hypertension, closely followed by those for pregnant women and for patients with diabetes. Sessions for family planning information are the least frequent, especially in Muntenia. Sessions for other patient groups are rare in all three regions. The majority of physicians are working within 5 kilometres from a general hospital.

4.3 Continuity of care

Routinely keeping record of medical information of patients is a major condition for quality and continuity of care, and is part of daily practice for most physicians (see Table 18). Retrieval of information is something different, but equally important. The identification of patient groups on the basis of a shared diagnosis, health risk or just age, may enable efficient approaches of active monitoring and prevention. The practice information systems of FDs seem to be tailored somewhat better than those of GPs to generating such categorical lists, especially in Muntenia. One of the core elements of the coopera-

tion between primary and secondary care is the information that accompanies patients when they are referred to other physicians or are hospitalized. At least seven out of ten respondents indicated using referral letters (which are required by the NHIH) for most patients that are referred. Computers are widely used. Only twelve of the 405 physicians reported not using a computer.

Table 17. Patient access to the FD/GP practice

Aspects of patients' access	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Same day visits are possible	94.5	73	91.0	177	94.2	155	92.8	405
Evening opening at least once per week	54.8	73	66.7	177	62.6	155	63.0	405
Weekend day opening at least once per month	15.1	73	12.4	177	9.7	155	11.9	405
Phone number available for patients when practice is closed	94.5	73	94.9	177	95.5	155	95.1	405
Clinics or sessions in use for special patient groups								
• for diabetes patients	91.5	95	96.4	138	94.4	126	94.7	323
• for hypertensive patients	94.9	95	97.1	138	96.8	126	96.6	323
• for family planning information	84.7	95	71.7	138	74.6	126	75.2	323
• for pregnant women	93.2	95	93.5	138	96.8	126	94.7	323
• for the elderly	89.8	95	92.8	138	84.9	126	89.2	323
• for other groups	20.3	95	23.2	138	10.3	126	17.6	232
No clinics or sessions for special patient groups	16.4	73	19.8	177	18.1	155	18.5	405
Practice situated at 5 or more kms distance from nearest general hospital	47.9	73	41.8	177	32.9	155	39.5	405

Table 18. Availability and use of clinical information and use of computers by FDs/GPs

Quality improvement	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Keeping patients' medical records routinely for all contacts	91.2	68	87.6	145	91.0	145	89.7	358
• FDs	100	5	93.8	32	90.0	10	93.6	47
• GPs								
Easy to generate a list of patients by diagnosis or health risk	61.8	68	70.3	145	62.1	145	65.4	358
• FDs	60.0	5	46.9	32	50.0	10	48.9	47
• GPs								
Using referral letters for all or most referred patients	80.9	68	72.4	145	86.2	145	79.7	358
• FDs	100	5	71.9	32	70.0	10	74.5	47
• GPs								

Quality improvement	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Using the computer for:								
• booking appointments	26.5	68	29.0	145	26.2	145	27.4	358
» FDs	40.0	5	15.6	32	40.0	10	23.4	47
» GPs								
• billing / financial admin.								
» FDs	27.9	68	22.8	145	30.3	145	26.8	358
» GPs	20.0	5	21.9	32	40.0	10	25.5	47
• prescriptions								
» FDs	50.0	68	53.8	145	55.9	145	53.9	358
» GPs	80.0	5	37.5	32	20.0	10	38.3	14
• keeping patient records								
» FDs	76.5	68	66.9	145	78.6	145	73.5	358
» GPs	80.0	5	56.3	32	60.0	10	59.6	47
• writing referral letters								
» FDs	41.2	68	50.3	145	46.9	145	47.2	358
» GPs	40.0	5	3103	32	50.0	10	36.2	47
• searching information								
» FDs	86.8	68	77.9	145	86.2	145	83.0	358
» GPs	100	5	81.3	32	90.0	10	85.1	47
Not using a computer								
• FDs	1.5	68	2.1	145	2.8	145	2.2	358
• GPs	-	5	9.4	32	10.0	10	8.5	47

4.4 Coordination of care

Table 19. FDs/GPs working in the practice or centre

Working in the same building	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
One physician	74.0	73	66.7	177	67.1	155	68.1	405
Two physicians working in the same building	8.2	73	8.5	177	13.5	155	10.4	405
Three or more physicians working in the same building	11.0	73	11.3	177	12.3	155	11.6	405
Both primary care physicians and medical specialists working in the same building	6.8	73	13.0	177	7.1	155	9.6	405
Other type of practice	-	73	0.6	177	-	155	0.2	405
TOTAL	100	73	100	177	100	155	100	405

Almost all of the physicians are working in the same building with a practice nurse (see Table 20); in Moldova this is reported to be the case with 98% of the respondents.

In contrast, working with a community nurse is much more unusual, especially in Muntenia (3%) and in Transylvania (2%). Respondents in Moldova are more often working in the same building with midwives than those in Muntenia and Transylvania. Dentists and pharmacists are occasionally mentioned in all three regions.

Table 20. Other disciplines working in the FD/GP practice or centre

Other disciplines	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Practice nurse	95.9	73	98.3	177	95.5	155	96.8	405
Community nurse	15.1	73	2.8	177	1.9	155	4.7	405
Midwife / birth assistant	4.1	73	-	177	0.6	155	1.0	405
Dentist	5.5	73	5.1	177	10.3	155	7.2	405
Pharmacist	2.7	73	3.4	177	4.5	155	3.7	405
Other	1.4	73	1.7	177	7.7	155	4.0	405

Regular meetings with colleagues of one's own discipline and with district nurses were reported by a large majority of respondents (see Table 24). Physicians in Moldova most frequently report to have regular meetings with other FDs/GPs, community nurses, midwives and pharmacists. Physicians in Muntenia report most frequently having regular meetings with practice nurses. Meetings with practice nurses were mentioned by approximately half of the respondents, while regular meetings with community nurses are mentioned by about one in four physicians in Moldova, but less than one in ten physicians in Muntenia and Transylvania.

Table 21. Face-to-face meetings of FDs/GPs with other primary care workers

Meeting face-to-face at least 1x per month with:	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Other FD/GPs	63.0	73	46.3	177	61.3	155	55.1	405
Practice nurse	54.8	73	57.6	177	48.4	155	53.6	405
Community nurse	28.8	73	4.0	177	7.1	155	9.6	405
Midwife / birth assistant	4.1	73	2.3	177	3.9	155	3.2	405
Pharmacist	30.1	73	20.9	177	21.9	155	23.0	405

The level of contact with other physicians is generally high (see Table 22). At least eight out of ten physicians in all three regions frequently or sometimes seek medical advice from the other categories of physicians, whereas contact with other FDs/GPs was less frequent.

Table 22. Consultation with and asking advice from other physicians

Frequently or sometimes asking advice from:	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Paediatricians	76.7	73	83.1	177	85.2	155	82.7	405
Internists	87.7	73	94.9	177	86.8	155	94.3	405
Gynaecologists	91.8	73	96.6	177	95.5	155	95.3	405
Surgeons	84.9	73	89.3	177	92.9	155	89.9	405
Neurologists	93.2	73	94.9	177	94.8	155	94.6	405
Dermatologists	87.8	73	93.8	177	92.3	155	92.1	405
Other FD	53.4	73	43.0	177	49.7	155	47.4	405

The reported number of patients referred to these and other physicians in a period of four weeks prior to filling out the questionnaire showed a moderate variation, with the highest average referral rates to specialists of internal diseases (see Table 23). The lowest rates were for referral to surgeons. (These calculated referral rates should be taken as indicative only).

Table 23. Patients referred by FDs/GPs to other physicians during the previous 4 weeks (indicative overall referral rates by region)

Patients referred to:	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	Mean (range)	Valid N	Mean (range)	Valid N	Mean (range)	Valid N	Mean (range)	Valid N
Secondary level paediatricians	6.5 (0–71)	73	4.0 (0–32)	177	4.8 (0–30)	155	4.8 (0–71)	405
Specialists of internal medicine	17.4 (1–127)	73	15.4 (0–115)	177	16.1 (0–121)	155	16.0 (0–127)	405
Gynaecologists	10.7 (1–127)	73	7.3 (0–60)	177	7.4 (0–42)	155	7.9 (0–127)	405
Surgeons	4.9 (0–50)	73	3.9 (0–20)	177	4.8 (0–40)	155	4.4 (0–50)	405
Neurologists	11.2 (1–60)	73	6.8 (0–65)	177	7.5 (0–70)	155	7.8 (0–70)	405
Dermatologists	7.4 (2–45)	73	4.7 (0–25)	177	5.5 (0–30)	155	5.5 (0–45)	405
ENT-specialists	6.1 (0–30)	73	5.2 (0–50)	177	4.6 (0–30)	155	5.2 (0–50)	405
Ophthalmologists	8.1 (0–40)	73	8.0 (0–50)	177	5.6 (0–35)	155	7.1 (0–50)	405
Total referrals per 4 weeks	72.3		55.3		56.3		58.7	
Reported referrals as % of all office contacts and home visits • FDs • GPs • Total	 13.50 10.45 13.29		 11.11 9.76 10.87		 10.52 4.66 10.17		 11.32 8.82 11.04	

The average number of referrals, especially to gynaecologists, neurologists, and dermatologists is slightly higher in Moldova than in Muntenia or Transylvania. The total number of referrals in a period of 4 weeks prior to the survey in Moldova was 72.3, in Muntenia 55.3 and in Transylvania 56.3. This means that in Moldova 13.3% of the reported patient contacts (in the office and in the patients' homes) end up with a referral to another physician; in Muntenia this is 10.9% and in Transylvania 10.2%. (Self referrals and other 'bypasses' of primary care are not included in these figures).

Table 23 also shows that the referral rate of GPs is lower than the referral rate of FDs in all three regions, but especially in Transylvania.

From Table 24 it appears that in urban areas slightly more patients are referred to all specialists than in rural areas, except to oncologists. The number of referrals to dermatologists, ENT-specialists, and ophthalmologists are in urban areas (almost) twice as high as in rural areas. The average number of referrals is 66 per 4 weeks in urban areas and 43 in rural areas. This means that in urban areas 12.1% of the reported patient contacts (in the office and in the patients' homes) end up with a referral to another physician and in rural areas 8.9%. Self referrals are not included in these percentages.

Table 24. Patients referred by FDs/GPs to other physicians during the previous 4 weeks (indicative overall referral rates by urbanization)

Patients referred to:	Urban (N=274)		Rural (N=128)		Total (N=402)	
	Mean (range)	Valid N	Mean (range)	Valid N	Mean (range)	Valid N
Secondary level paediatricians	4.8 (0–71)	274	4.5 (0–31)	128	4.8 (0–71)	402
Specialists of internal medicine	17.3 (0–127)	274	13.3 (0–127)	128	16.0 (0–127)	402
Gynaecologists	9.2 (0–127)	274	5.1 (0–30)	128	7.9 (0–127)	402
Surgeons	5.0 (0–50)	274	3.2 (0–15)	128	4.4 (0–50)	402
Neurologists	8.8 (0–70)	274	5.8 (0–40)	128	7.9 (0–70)	402
Dermatologists	6.6 (0–45)	274	3.2 (0–30)	128	5.5 (0–45)	402
ENT-specialists	6.1 (0–50)	274	3.2 (0–30)	128	5.2 (0–50)	402
Ophthalmologists	8.5 (0–50)	274	4.9 (0–30)	128	7.1 (0–50)	402
Total referrals per 4 weeks	66.1		43.2		58.8	
Reported referrals as % of all office contacts and home visits	12.06%		8.93%		11.05%	

In the three regions the connections with the community were not very strong, with regular meetings with local authorities reported by less than a quarter of respondents (see Table 25). However, in Moldova regular meetings with community or social workers seem to be more common. Slightly more than one third of the physicians in Moldova,

but only one in five in Transylvania and one in eight in Muntenia indicated they had regular meetings with community and/or social workers. Fewer than seven per cent of physicians in all regions indicated having community representatives on the board of their practice. Eleven per cent of respondents in Moldova, 3% in Muntenia, and 12% in Transylvania indicated not to know about this.

Table 25. Connections of FDs/GPs with the community

Kind of connections	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Regular meetings with local authorities	23.3	73	15.8	177	20.0	155	18.8	405
Regular meetings with community / social workers	38.4	73	11.9	177	20.0	155	19.8	405
Community representative(s) is / are in the board of your practice	5.5	73	6.2	177	6.5	155	6.2	405

4.5 Comprehensiveness of care

FDs/GPs were asked whether health education materials, such as leaflets or posters, from the pharmaceutical industry or from others had been displayed or made available in the waiting room of their practice. The results are in Table 26. For the majority of FDs/GPs in all three regions health education materials were available. On average 80% of physicians have some kind of health education materials available, three quarters of which was provided by the pharmaceutical industry.

FDs/GPs were asked to indicate which items of medical equipment from a list of 30 they had at their disposal. Fig. 7 and Tables 27 and 28 summarize the state of medical equipment in the practices by region, by urbanization and for FDs and GPs separately. In Fig. 7 the distribution of all items of equipment has been represented, showing that the difference in the availability of medical equipment was small between regions. In all three regions 11 items were available to (almost) all FDs/GPs (>90%). In addition to that, in Moldova 16 items were widely available (to at least three quarters of the FDs/GPs), in Muntenia 14 and in Transylvania 13. The relatively small difference among locations may point to similar tasks and diagnostic possibilities. However, there may be room for improvement. For instance, in all three regions more than 80% of FDs/GPs had no emergency kit, two thirds had no equipment for blood sugar tests, and one third had no dressings or bandages at their disposal in the practice. Aspirators, vision charts and ECG-equipment are relatively scarce in all three regions, especially in Muntenia. Furthermore, ultrasound imaging equipment was not widely available in FD/GP practices.

Table 26. Availability of health education materials for patients in the waiting room

Subject of health education materials	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Cardiovascular disease risks (CVD)	93.2	73	94.9	177	91.6	155	93.3	405
Healthy diet	86.3	73	87.6	177	90.3	155	88.4	405
Smoking cessation	91.8	73	86.4	177	84.5	155	86.7	405
Obesity	87.7	73	81.9	177	79.4	155	82.0	405
Diabetes	87.7	73	89.3	177	80.0	155	85.4	405
Sexually transmitted diseases (STD)	97.3	73	79.1	177	80.0	155	82.7	405
Vaccinations	91.8	73	76.8	177	83.2	155	82.0	405
Contraception	91.8	73	76.3	177	72.9	155	77.8	405
Self treatment of cold / coughing	80.8	73	74.6	177	74.8	155	75.8	405
Social services	50.7	73	49.2	177	46.5	155	48.4	405
Pregnancy	91.8	73	81.4	177	79.4	155	82.5	405
Average material available (%)	86.4		79.8		78.4		80.5	
Supplied by pharmaceutical industry (%)	57.4		61.7		58.5		59.7	

Table 27 provides an overview of medical equipment most frequently reported to be rarely or never used by the FDs/GPs. Well over 70%, being 289 FDs/GPs, reported to (almost) never use at least one item. If differences in the equipment distribution (as indicated in the last column), are taken into account it appears that most of the FDs/GPs who have an emergency kit at their disposal rarely or never use it, and that more than 40% of those who have an OB-GYN table and a quarter of those with an otoscope are not using them.

Table 28 shows some differences among the regions, with physicians in Moldova being somewhat better equipped than their colleagues in Muntenia and Transylvania. Overall, the average number of items of equipment per physician from a list of 30 items was between 18 and 21. In Muntenia 115 out of 177 physicians (65%) had no more than 20 items at their disposal. The worst equipped physician, in Transylvania, had six items. There were hardly any differences between FDs and GPs.

Fig. 7. Equipment available in FD/GP practices (%)

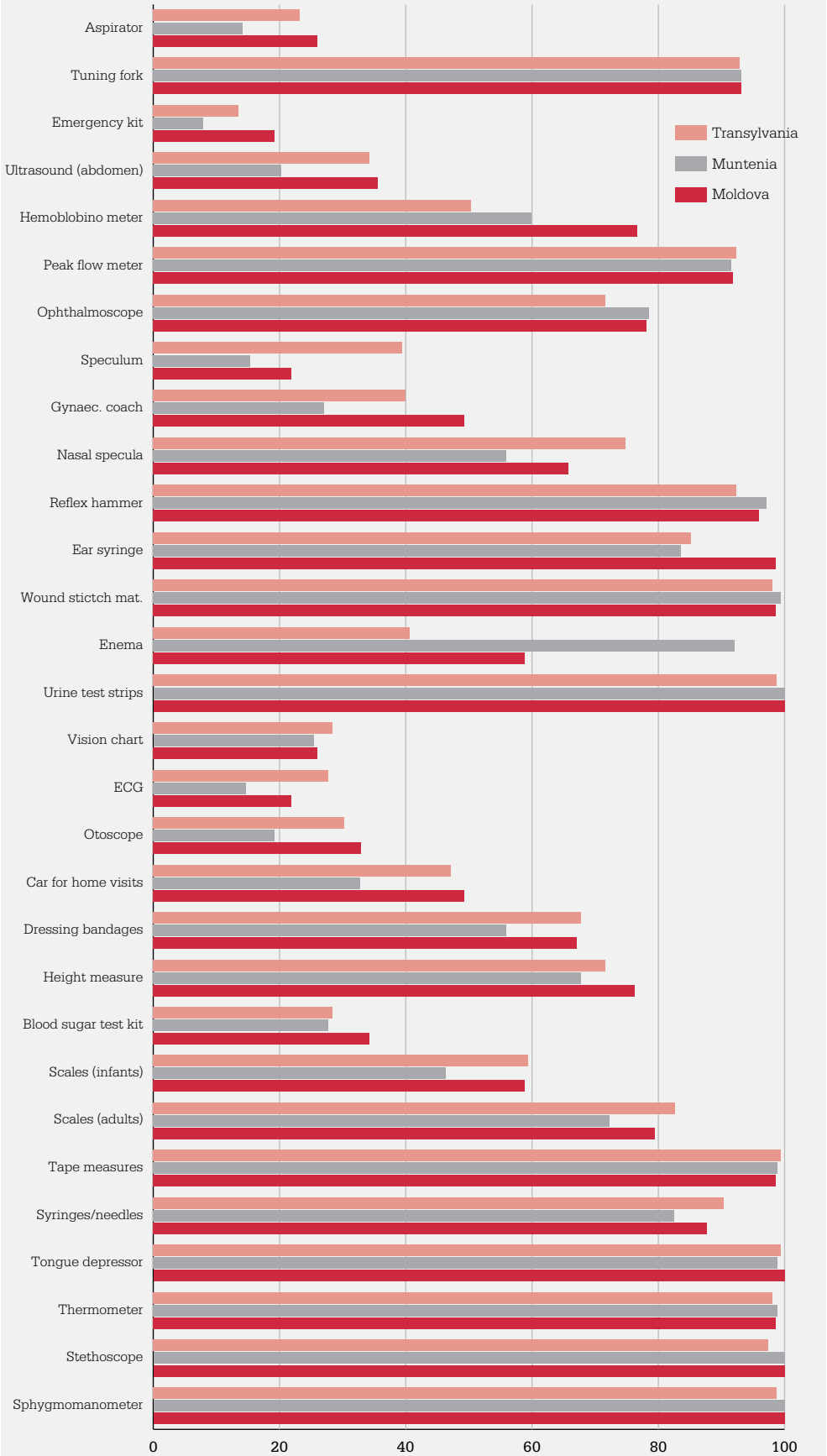


Table 27. Available practice equipment that is rarely or never used by FDs/GPs

Items of equipment	FDs/GPs reporting rare or no use of the item		FDs/GPs having the item at their disposal
	Number	% of FDs/GPs having the item	
OB-GYN table	64	43.8	146
Suture kit	42	10.5	400
Tuning fork	37	9.8	379
Aspirator	34	42.5	80
Reflex hammer	31	7.9	393
Emergency kit	30	61.2	49
Speculum	30	28.8	104
Otoscope	27	25.7	105
Vision chart	21	19.4	108
Enaema	20	7.4	269
Ophthalmoscope	19	6.2	307
Ear syringe	18	5.1	352
Blood sugar test kit	16	13.6	118
Electrocardiograph	15	17.6	85

Table 28. Items of practice equipment available to FDs/GPs, by region

Number of items	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	N	%	N	%	N	%	N	%
15 or fewer	9	12.3	34	19.2	24	15.5	67	16.5
16–20	30	41.1	81	45.8	65	41.9	176	43.5
21–25	25	34.2	52	29.4	50	32.3	127	31.4
26–30	9	12.3	10	5.6	16	10.3	35	8.6
TOTAL	73	100	177	100	155	100	405	100
Average number of items per physician (from list of 30) • FDs • GPs • Total	 20.5 19.4 20.4		 18.7 18.9 18.8		 19.9 18.4 19.8		 19.5 18.9 19.5	

Table 29 shows that rural FDs/GPs are only marginally better equipped than urban colleagues, with averages of 20.1 and 19.1, respectively.

Table 29. Items of practice equipment available to FDs/GPs, by urbanization

Number of items	Urban (N=274)		Rural (N=128)		Total (N=402)	
	N	%	N	%	N	%
15 or less	49	17.9	17	13.3	66	16.4
16 – 20	129	47.1	46	35.9	175	43.5
21 – 25	73	26.6	54	42.2	127	31.6
26 – 30	23	8.4	11	8.6	34	8.5
TOTAL	274	100	128	100	402	100
Average number of items per FD/GP (from list of 30)	19.1		20.1		19.5	

As shown in Table 30 laboratory facilities were available to the majority of physicians, but not always fully or partly within their own practice, and a large minority in all three regions indicated that laboratory facilities were unavailable or insufficiently available. More or less the same holds for X-ray diagnostic facilities: a small majority of physicians had sufficient access to facilities, if not inside then outside the practice; a large minority had no access or insufficient access.

Table 30. FDs/GPs' access to X-ray and laboratory facilities, by region

Type of facility and mode of access	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Availability of laboratory								
Full in practice								
• FDs	39.7	68	40.0	145	33.8	145	37.4	358
• GPs	60.0	5	34.4	32	10.0	10	31.9	47
Full outside practice								
• FDs	8.8	68	20.0	145	10.3	145	14.0	358
• GPs	-	5	15.6	32	10.0	10	12.8	47
Partly within, partly outside practice								
• FDs	8.8	68	5.5	145	13.8	145	9.5	358
• GPs	-	5	3.1	32	20.0	10	6.4	47
Not / insufficiently available								
• FDs	42.6	68	34.5	145	42.1	145	39.1	358
• GPs	40.0	5	46.9	32	60.0	10	48.9	47
Availability of X-ray								
Full in practice								
• FDs	36.8	68	42.1	145	33.1	145	37.4	358
• GPs	60.0	5	34.4	32	-	10	29.8	47
Full outside practice								
• FDs	13.2	68	20.0	145	24.8	145	20.7	358
• GPs	20.0	5	18.8	32	30.0	10	21.3	47
Not / insufficiently available								
• FDs	50.0	68	37.9	145	42.1	145	41.9	358
• GPs	20.0	5	46.9	32	70.0	10	48.9	47

Table 31 shows that FDs/GPs in urban practices more often have their own laboratory and X-ray facilities than those in rural practices and that in rural areas these facilities are more often insufficiently available.

Table 31. FDs/GPs' access to X-ray and laboratory facilities, by urbanization

Type of facility and mode of access	Urban (N=274)		Rural (N=128)		Total (N=402)	
	Abs.	%	Abs.	%	Abs.	%
Availability of laboratory						
• Full in practice	121	44.2	28	21.9	149	37.1
• Full outside practice	34	12.4	22	17.2	56	13.9
• Part inside, part outside practice	28	10.2	9	7.0	37	9.2
• Not / insufficiently available	91	33.2	69	53.9	160	39.8
Availability of X-ray						
• Full in practice	118	43.1	30	23.4	148	36.8
• Full outside practice	53	19.3	31	24.2	84	20.9
• Not / insufficiently available	103	37.6	67	52.3	170	42.3

4.6 Service delivery

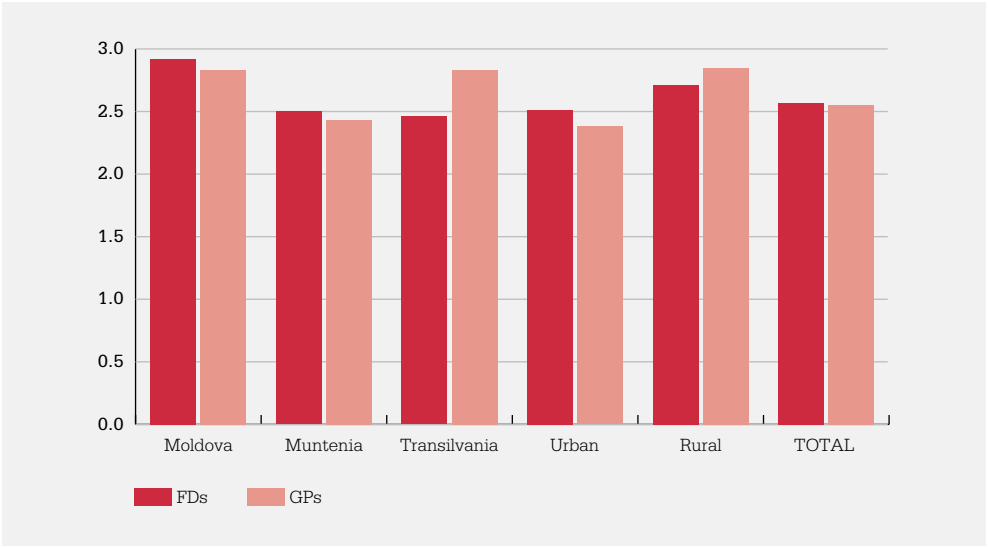
Concerning the FDs/GPs' clinical task profiles three elements will be distinguished: the role of the FD/GP in the first contact with patients' health problems; the provision of medical technical procedures; and the treatment and follow up of diseases. Each of these tasks has been measured by means of lists of items which together indicate the degree of involvement of the physician. (For more details we refer to the description of the methodology in Chapter 1).

4.6.1 First contact for patients' health problems

The first contact role was measured with 18 items related to a variety of problems of men, women and children. FDs/GPs could indicate whether their patients would address them with these problems "(almost) always", "usually", "occasionally", "seldom/never" or "do not know". Fig. 9 and Tables 35 and 36 (in Annex 1) provide the results. Percentages refer to physicians who estimated that they would be always or usually the doctor of first contact. (The percentage in brackets refers to those who ticked "occasionally"). In Moldova and Muntenia there is only a small difference between FDs and GPs in their role as the first contact. For social and relationship problems and sexual problems neither FDs nor GPs are the obvious first contact.

As Fig. 8 and Table 33 show, the difference between FDs/GPs in urban or rural practices is comparable to their difference among regions.

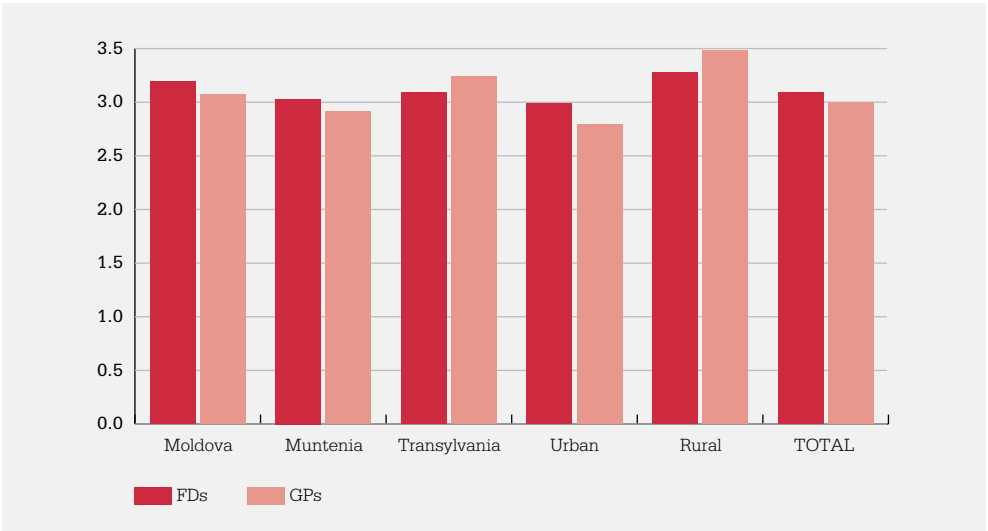
Fig. 8. FD/GPs role as the first contact for patients' health problems (based on 18 items; max. = 4)



4.6.2 FDs/GPs in the treatment of diseases

FDs and GPs are equally involved in the treatment of the 19 diseases summarized in Fig. 10 and specified in the Tables 37 and 38 (see Annex 1). Likewise, no large differences appear among regions. FDs were most highly involved (at least 80% always or usually involved) with 8 conditions in Moldova, 7 conditions in Muntenia, and with 12 conditions in Transylvania out of the total of 18 conditions. For GPs that was the case with 11 conditions in Moldova, 9 conditions in Muntenia, and with 12 conditions in Transylvania (Table 35). If FDs and GPs in urban and rural areas are compared (Fig. 10, Table 38), the latter are more involved in the treatment of these conditions than are the former.

Fig. 9. FD/GPs role in treatment and follow up of diseases among their patients (based on 18 items; max. = 4)



4.6.3 FD/GP preventive and medical procedures

As Fig. 10 shows, the role of FDs and GPs in providing medico-technical procedures is very limited. (See also Tables 39 and 40 in Annex 1). This is true for FDs as well as GPs. A number of tasks listed in the table seem to be outside the primary care domain, in the domains of gynaecology, ophthalmology and otolaryngology. It should be mentioned that FDs/GPs are not allowed to provide certain treatments or screening procedures for some of the items mentioned, under the framework contract and other regulations. For other items distinct contracts are required that lack financing or cooperation from local authorities. Differences between urban and rural physicians in the provision of medico-technical procedures are smaller than regional differences. Although the overall involvement is low, rural physicians are more often involved in these procedures and services than urban physicians

If any involvement (including referral) is considered, FDs/GPs in all three regions seem to be reasonably well involved in most activities for the mentioned patient groups/health risks (see Table 41). If the personal performance of the service is concerned, the involvement is much lower. Overall, one in five on average reported performing the activities themselves, while almost half reported referrals. Influenza vaccination is the only activity from the list in Table 41 that the majority of physicians reported performing themselves. Only one in seven FDs/GPs perform screening services themselves.

Fig. 10. FD/GPs provision of medical-technical procedures (based on 16 items; max. = 4)

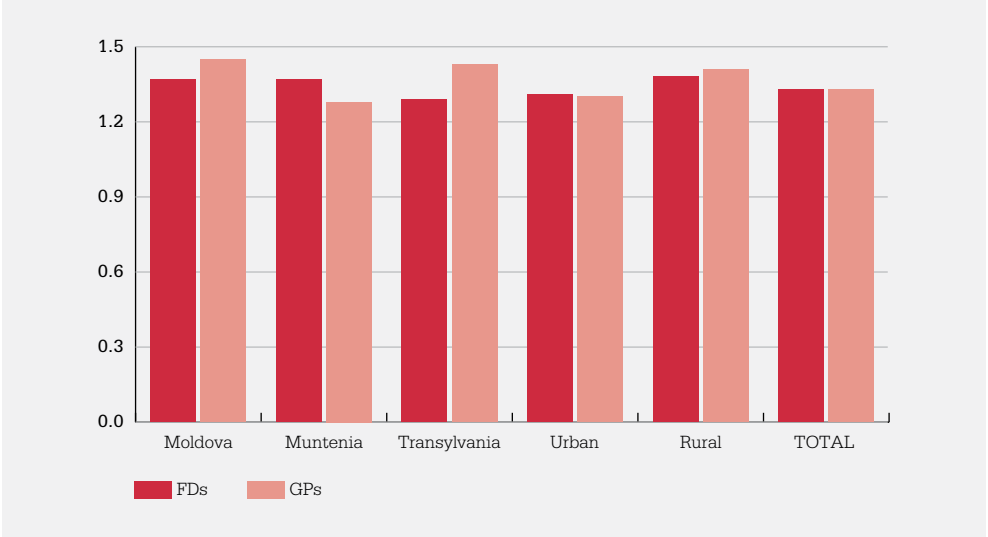


Table 41. FD/GPs involvement in activities for specific groups, by %

Activity	Moldova (N=73)			Muntenia (N=177)			Transylvania (n=155)			Total (N=405)		
	Yes, referral	Yes, myself	Valid N	Yes, referral	Yes, myself	Valid N	Yes, referral	Yes, myself	Valid N	Yes, referral	Yes, myself	Valid N
STD screening	61.6	16.4	73	53.7	14.1	177	54.8	12.3	155	55.6	13.8	405
HIV / AIDS screening	63.0	9.6	73	49.7	15.8	177	55.5	10.3	155	54.3	12.6	405
TB screening	60.3	13.7	73	55.4	13.6	177	59.4	11.0	155	57.8	12.6	405
Influenza vaccination for high-risks	26.0	64.4	73	30.5	55.4	177	34.8	53.5	155	31.4	56.2	405
Rehabilitative care	52.1	26.0	73	47.5	18.6	177	51.0	21.9	155	49.6	21.2	405
School health care	23.3	35.6	73	20.3	24.3	177	18.7	23.9	155	20.2	26.2	405
Cervical cancer screening	68.5	11.0	73	52.0	13.6	177	53.5	15.5	155	55.6	13.8	405
Breast cancer screening	64.4	17.8	73	54.2	16.9	177	51.6	20.6	155	55.1	18.5	405
TOTAL coverage for specific groups (range 0–100%)	52.4	24.3	73	45.4	21.5	177	47.4	21.1	155	47.4	21.9	405

4.6.4 Mother and child care and reproductive health

These are generally seen as tasks for primary care physicians, because they are basically aimed at healthy people. Table 42 shows to what extent physicians are involved in these services.

Table 42. Services provided by FDs/GPs to mothers and children, by region

Services provided to all or most mothers/children of the practice	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	N	%	N	%	N	%	N	%
Family planning and contraception	54	74.0	82	46.3	81	52.3	217	53.6
Routine antenatal care	70	95.9	152	85.9	133	85.8	355	87.7
Normal immunizations to children under 4 years	60	82.2	132	74.6	116	74.8	308	76.0
Routine paediatric surveillance (until 4 years)	63	86.3	132	74.6	118	76.1	313	77.3
Promotion of breastfeeding	70	95.9	148	83.6	145	93.5	363	89.6

Physicians in Moldova are more involved in each of the five routine mother and child services mentioned than physicians in Muntenia and Transylvania (see Table 42). The difference is especially large with family planning and contraception services. However, compared to the other services family planning was not very well covered.

When urbanization is taken into account (see Table 43), again rural physicians are much more involved in the provision of these services than are urban physicians.

Table 43. Services provided by FDs/GPs to all or most mothers and children, by urbanization

Services provided to all or most mothers/ children of the practice	Urban (N=274)		Rural (N=128)		Total (N=402)	
	N	%	N	%	N	%
Family planning and contraception	125	45.6	90	70.3	215	53.5
Routine antenatal care	239	87.2	114	89.1	353	87.8
Normal immunizations of children under 4 years old	187	68.2	118	92.2	305	75.9
Routine paediatric surveillance (until 4 years old)	190	69.3	120	93.8	310	77.1
Promotion of breastfeeding	236	86.1	124	96.9	360	89.6

4.7 Quality assurance activities

Results reported in this section are from survey questions included in the PCET) and those added from the PCQMT.

4.7.1 Guidelines, complaint procedures and practice evaluations

Clinical guidelines and procedures for dealing with patient complaints are both tools for improving the quality of care. Furthermore, evaluations can be used to assess patient and community satisfaction and the job satisfaction of physicians and nurses. Table 44 shows the utilization of the different methods of quality improvement. Clinical guidelines are reported to be frequently used by almost half of the FDs/GPs. Except for Muntenia, FDs report more frequent usage than GPs. Complaint procedures are widely used. Patient satisfaction surveys are reported by half of the FDs and one-third of the GPs. Interviews with community representatives to learn their satisfaction with primary care services are not frequently practised (by less than a quarter). Around 40% of the FDs/GPs report job satisfaction interviews with staff. On average the use of clinical guidelines, complaints procedures and evaluative methods are somewhat more frequent in Muntenia, but the differences are small.

Table 44. Use of clinical guidelines, complaints procedure and evaluation methods by FD/GPs

Quality improvement	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Applying clinical guidelines								
• FDs								
» frequently	47.1	68	39.3	145	56.6	145	47.8	358
» occasionally or seldom/ never	52.9	68	60.7	145	43.4	145	52.2	358
• GPs								
» frequently	40.0	5	59.4	32	20.0	10	48.9	47
» occasionally or seldom/ never	60.0	5	40.6	32	80.0	10	51.1	47
Having a procedure for dealing with complaints								
• FDs	88.2	68	93.1	145	91.8	145	91.6	358
• GPs	60.0	5	90.6	32	100	10	89.3	47
Using evaluation methods:								
• investigation of patient's satisfaction								
» FDs	48.5	68	52.4	145	47.6	145	49.7	358
» GPs	40.0	5	31.3	32	30.0	10	31.9	47
• interviewing community : representatives about satisfaction with the centre/ practice:								
» FDs	23.5	68	26.2	145	20.7	145	23.5	358
» GPs	20.0	5	9.4	32	10.0	10	10.6	47
• interviewing physicians and nurses about their job satisfaction:								
» FDs	50.0	68	44.1	145	35.2	145	41.6	358
» GPs	20.0	5	28.1	32	10.0	10	23.4	47

Table 45 shows that almost all FDs/GPs have clinical guidelines at their disposal. The availability was better in Transylvania than in both other regions. However, more than half of the FDs/GPs never receive updates of guidelines. The most favourite ways of getting medical information are in informal discussions or at medical courses. Most FDs/GPs report to be free to choose CME courses.

4.7.2 Peer consultation, professional reading and involvement in research

Tables 46 and 47 show the percentage of FDs/GPs involved in various activities related to professionel development. These data show that the FDs/GPs are clearly more involved in consultation and discussion with colleagues and reading medical information, than in developing clinical guidelines or treatment protocols, or conducting research. Fewer FDs/GPs in Muntenia are involved in regular discussions with colleagues about clinical work, or in reading medical journals or medical information on the Internet, than their colleagues in Moldova or Transylvania, but they are more often involved in developing a clinical guideline or treatment protocol.

Table 45. Availability of clinical guidelines to FDs/GPs and freedom to choose CME

Clinical guidelines	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	%	Valid N	%	Valid N	%	Valid N	%	Valid N
Availability of clinical guidelines								
• personal set in own room	57.5	73	53.1	177	60.0	155	56.5	405
• in practice, not in room	5.5	73	9.0	177	8.4	155	8.1	405
• outside practice	8.2	73	7.9	177	3.9	155	6.4	405
• on the Internet	16.4	73	20.9	177	23.2	155	21.0	405
• not available	12.3	73	9.0	177	4.5	155	7.9	405
Receiving updates or revised versions								
• regularly	31.5	73	26.0	177	32.9	155	29.6	405
• not regularly	15.1	73	13.6	177	19.4	155	16.0	405
• not	53.4	73	60.5	177	47.7	155	54.3	405
Additional information or instruction								
• discussed at regular meetings	23.3	73	13.0	177	12.9	155	14.8	405
• discussed informally	32.9	73	41.8	177	43.2	155	40.7	405
• at medical courses	28.8	73	39.0	177	31.6	155	34.3	405
• tested at regular examinations	4.1	73	5.1	177	5.2	155	4.9	405
• no further information or follow up	15.1	73	15.3	177	20.0	155	17.0	405
CME								
• timing / topics decided by others	13.7	73	31.6	177	14.8	155	22.0	405
• timing / topics jointly decided	12.3	73	7.9	177	2.6	155	6.7	405
• free to choose courses	74.0	73	60.5	177	82.6	155	71.4	405

Table 46. FDs/GPs involvement in various activities related to professional development in the past 12 months, by region

Activities	Moldova (N=73)			Muntenia (N=177)			Transylvania (n=155)			Total (N=405)		
	Abs.	%	times	Abs.	%	times	Abs.	%	times	Abs.	%	times
Incidental consultation with colleague when in doubt about a diagnosis / treatment	55	75.3	12.3	141	79.7	7.1	135	87.1	8.5	331	81.7	8.6
Regular discussion with colleagues about clinical work	57	78.1	11.1	123	69.5	7.1	125	80.6	10.4	305	75.3	9.2
Developing a clinical guideline or treatment protocol with colleague(s)	13	17.8	5.6	38	21.5	4.6	29	18.7	4.1	80	19.8	4.5
Reading medical journal(s)	68	93.2	28.1	157	88.7	45.7	151	97.4	34.1	376	92.8	37.9
Reading medical information on the Internet	65	89.0	107.8	143	80.8	80.1	144	92.9	95.7	352	86.9	91.6

Activities	Moldova (N=73)			Muntenia (N=177)			Transylvania (n=155)			Total (N=405)		
	Abs.	%	times	Abs.	%	times	Abs.	%	times	Abs.	%	times
Formal audit (official assessment of your clinical work by external audit team)	38	52.1	1.6	79	44.6	1.4	66	42.6	1.7	183	45.2	1.6
Clinical or epidemiological research in your practice	22	30.1	1.5	31	17.5	2.9	23	14.8	2.3	76	18.8	2.3
Conducting an investigation on satisfaction of patients	28	38.4	12.3	61	34.5	34.3	52	33.5	7.9	141	34.8	20.0

Table 47 shows that urban FDs/GPs are more often involved in developing clinical guidelines or treatment protocols, conducting clinical or epidemiological research and investigation patients' satisfaction than rural physicians. On the other hand, rural physicians are more often involved in consultation and discussion with colleagues, and with reading medical journals or medical information on the Internet.

Table 47. FDs/GPs' involvement in activities related to professional development in the past 12 months, by urbanization

Activities	Urban (N=274)			Rural (N=128)			Total (N=402)		
	Abs.	%	times	Abs.	%	times	Abs.	%	times
Incidental consultation with colleague when in doubt about a diagnosis or treatment	219	79.9	8.4	109	85.2	9.0	328	81.6	8.6
Regular discussion with colleagues about clinical work	204	74.5	8.8	98	76.6	10.2	302	75.1	9.2
Developing a clinical guideline or treatment protocol with colleague(s)	62	22.6	4.2	17	13.3	6.0	79	19.7	4.6
Reading medical journal(s)	251	91.6	39.8	122	95.3	34.3	373	92.8	38.0
Reading medical information on the Internet	230	83.9	86.9	119	93.0	96.4	349	86.8	90.0
Formal audit (official assessment of your clinical work by external audit team)	123	44.9	1.7	59	46.1	1.4	182	45.3	1.6
Clinical or epidemiological research in your practice	59	21.5	2.5	16	12.5	1.8	75	18.7	2.3
Conducting an investigation on satisfaction of patients	97	35.4	23.9	43	33.6	11.8	140	34.8	20.1

Public health authorities and the health insurer have information at their disposal indicating the quality of FD/GP services. Tables 48 and 49 show to what extent FDs/GPs report that this information is shared with them as a way of feedback. Out of the six topics in the table, the most frequently mentioned, by a small majority of FDs/GPs, are findings from medical file inspections. Feedback about referrals, medicine prescriptions and the

quality of patient records are reported by well over 40% of the FDs/GPs. Feedback about professional development and training needs is reported by one third of the FDs/GPs. Points of dissatisfaction among patients are least frequently fed back according to the FDs/GPs: overall about one fifth indicate to get this information. FDs/GPs in Muntenia consistently report to getting these forms of feedback less frequently than those in the other regions.

4.7.3 External feedback to FDs/GPs

Table 48. Feedback to FDs/GPs from the PHA or HIH on a number of topics, by region

Topics	Moldova (N=73)		Muntenia (N=177)		Transylvania (n=155)		Total (N=405)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Findings from an inspection of your medical files	44	60.3	86	48.6	98	63.2	228	56.3
Your referrals to medical specialists	40	54.8	66	37.3	72	46.5	178	44.0
Your medicine prescriptions	37	50.7	65	36.7	71	45.8	173	42.7
Points where patients are dissatisfied about	20	27.4	23	13.0	42	27.0	85	21.0
The quality of your medical records of patients	31	42.5	62	35.0	83	53.5	176	43.5
Your professional development and needs for training	28	38.4	46	26.0	58	37.4	132	32.6

Comparisons between urban and rural FDs/GPs are made in Table 49. It appears that, except for feedback from inspection of medical files, rural FDs/GPs more frequently report receiving these forms of feedback than their urban counterparts.

Table 49. Feedback to FDs/GPs from the PHA or HIH on number of topics, by urbanization

Topics	Urban (N=274)		Rural (N=128)		Total (N=402)	
	Abs.	%	Abs.	%	Abs.	%
Findings from an inspection of your medical files	153	55.8	73	57.0	226	56.2
Your referrals to medical specialists	112	40.9	64	50.0	176	43.8
Your medicine prescriptions	111	40.5	61	47.7	172	42.8
Points where patients are dissatisfied about	51	18.6	33	25.8	84	20.9
The quality of your medical records of patients	112	40.9	63	49.2	175	43.5
Your professional development and needs for training	82	29.9	49	38.3	131	32.6

5. PATIENTS' EXPERIENCES AND PERCEPTIONS OF PRIMARY CARE

In each of the practices of the physicians who participated in the physician's survey, a number of patients were asked to fill in a questionnaire on their perspectives, which forms the basis of this chapter. Field workers visited the practices and systematically asked all attending patients for their cooperation, until the target of 15 completed questionnaires was achieved. In this way the information gained from the patient survey applied to the same practices as the information from the survey among the physicians in the three regions. Further explanation of the approach can be found in Chapter 1.

5.1 Respondent profile

As Table 50 shows, the patient survey had a response of 1800 patients. As usual among visitors of health services, female patients were a majority, at 61.5% overall. Two thirds (n=1200) of the respondents were from urban practices.

Table 50. Gender distribution of patients, by region and urbanization *

Characteristics		Moldova (N=390)			Muntenia (N=825)			Transylvania (N=585)			Total (N=1800)		
		Urban N (%)	Rural N (%)	Total N (%)	Urban N (%)	Rural N (%)	Total N (%)	Urban N (%)	Rural N (%)	Total N (%)	Urban N (%)	Rural N (%)	Total N (%)
Gender	Male	64 (32.8)	73 (37.4)	137 (35.1)	196 (32.7)	74 (32.9)	270 (32.7)	154 (38.0)	71 (39.4)	225 (38.5)	414 (34.5)	218 (36.3)	632 (35.1)
	Female	131 (67.2)	122 (62.6)	253 (64.9)	404 (67.3)	151 (67.1)	555 (67.3)	251 (62.0)	109 (60.6)	360 (61.5)	786 (65.5)	382 (63.7)	1 168 (64.9)
Total		195 (100)	195 100)	390 (100)	600 (100)	225 (100)	825 (100)	405 (100)	180 (100)	585 (100)	1 200 (100)	600 (100)	1 800 (100)

* Rural includes small towns and rural areas.

Table 51 shows that the age distribution of respondents in the three regions was comparable, with the respondents in Muntenia slightly older. In all three regions 40% of the patients who filled in the questionnaire were employed, and 37% were retirees. Only a few respondents were unemployed or unable to work.

5.2 Accessibility of care

5.2.1 Financial access

Most of the primary care services in Table 52 appeared to be available free of charge. One important exception was that a large majority of indicated they had to pay for medicines or injection prescribed by primary care physicians. Up to a quarter of respondents reported they also had to pay for a specialist visit after referral by their FD/GP.

Table 51. Patients' age, occupational status and living situation, by region

Patients' backgrounds	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Age								
• 0– 20 years	15	4.0	31	4.1	42	7.4	183	10.2
• 21–30	74	19.6	109	14.3	94	16.7	277	15.5
• 31–40	72	19.0	130	17.0	114	20.21	316	17.6
• 41–50	54	14.3	125	16.4	75	3.3	254	14.1
• 51–60	81	21.4	148	19.4	109	19.3	338	18.8
• Over 60	82	21.7	220	28.8	130	23.0	432	24.0
Total	378	100	763	100	564	100	1800	100
Occupation								
• in school	25	6.4	53	6.6	53	9.1	131	7.4
• unemployed / looking for a job	29	7.5	48	5.9	57	9.8	134	7.5
• unable to work (disability)	3	0.8	2	0.2	0	-	5	0.3
• looking after family	30	7.7	41	5.1	21	3.6	92	5.2
• employee	151	38.8	304	37.7	208	35.6	663	37.2
• self-employed	11	2.8	18	2.2	20	3.4	49	2.8
• retired	122	31.4	327	40.5	208	35.6	657	36.9
• other	18	4.6	14	1.7	17	2.9	49	2.8
Total	389	100	807	100	584	100	1780	100
Living situation								
• alone	38	9.7	85	10.3	61	10.4	184	10.2
• with parents	48	12.3	100	12.1	91	15.6	239	13.3
• with husband / wife	100	25.6	237	28.7	165	28.2	502	27.9
• with family (incl. children)	192	49.2	330	40.0	242	41.4	764	42.4
• other	12	3.1	73	8.8	26	4.4	111	6.2
Total	390	100	825	100	585	100	1800	100

Table 52. Services for which (co)payment from patients is required

Type of service	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Visit to your FD/GP	9	2.3	57	6.9	37	6.3	103	5.7
Medicines or injections prescribed by your FD/GP	261	66.9	473	57.3	431	73.7	1 165	64.7
A visit to a specialist after referral by your FD/GP	66	16.9	145	17.6	161	27.5	372	20.7
Home visit by your FD/GP	54	13.8	183	22.2	159	27.2	396	22.0
Regular check up of baby or young child	9	2.3	35	4.2	57	9.7	101	5.6

On average one in ten patients reported that private payments for medicines had made them decide not to visit or to delay a visit to their doctor (Table 53).

Table 53. Patients reporting financial obstacles to use of services related to cost of medicines

Decision taken in past year	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Not to visit or delay a visit because I could not pay for the medicines	43	11.0	90	10.9	44	7.5	177	9.8

5.2.2 Geographical access and responsiveness

Table 54. Patients' travel time to primary care providers

Provider and travel time	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
FD/GP								
• up to 20 minutes	308	79.0	583	70.7	383	65.5	1 274	70.8
• 20–40 minutes	63	16.2	174	21.1	164	28.0	401	22.3
• 40–60 minutes	12	3.1	44	5.3	23	3.9	79	4.4
• more than 1 hour	7	1.8	18	2.2	11	1.9	36	2.0
• don't know	0	0.0	6	0.7	4	0.7	10	0.6
Total	390	100	825	100	585	100	1 800	100
Preferred pharmacist								
• up to 20 minutes	309	79.2	586	71.0	413	70.6	1 308	72.7
• 20–40 minutes	49	12.6	162	19.6	123	21.0	334	18.6
• 40–60 minutes	7	1.8	44	5.3	29	5.0	80	4.4
• more than 1 hour	16	4.1	11	1.3	12	2.1	39	2.2
• don't know	9	2.3	22	2.7	8	1.4	39	2.2
Total	390	100	825	100	585	100	1 800	100
Preferred dentist								
• up to 20 minutes	173	44.4	363	44.0	301	51.5	837	46.5
• 20–40 minutes	147	37.7	209	25.3	173	29.6	529	29.4
• 40–60 minutes	39	10.0	83	10.1	45	7.7	167	9.3
• more than 1 hour	8	2.1	42	5.1	39	6.7	89	4.9
• don't know	23	5.9	128	15.5	27	4.6	178	9.9
Total	390	100	825	100	585	100	1800	100
Nearest hospital								
• up to 20 minutes	127	32.6	337	40.8	265	45.3	729	40.5
• 20–40 minutes	158	40.5	292	35.4	219	37.4	669	37.2
• 40–60 minutes	83	21.3	124	15.0	48	8.2	255	14.2
• more than 1 hour	18	4.6	46	5.6	46	7.9	110	6.1
• don't know	4	1.0	26	3.2	7	1.2	37	2.1
Total	390	100	825	100	585	100	1 800	100

As Table 54 and Fig. 11 show, on average seven in ten patients could reach their preferred primary care doctor and pharmacist within 20 minutes. The preferred dentist is within 20 minutes reach for almost half of the respondents, the nearest hospital for four out of ten. Travel times of more than 40 minutes were more often reported with regard to the preferred dentist and the nearest hospital.

Fig. 11. Patients with up to 20 minutes travel time to health care providers and facilities (%), by region

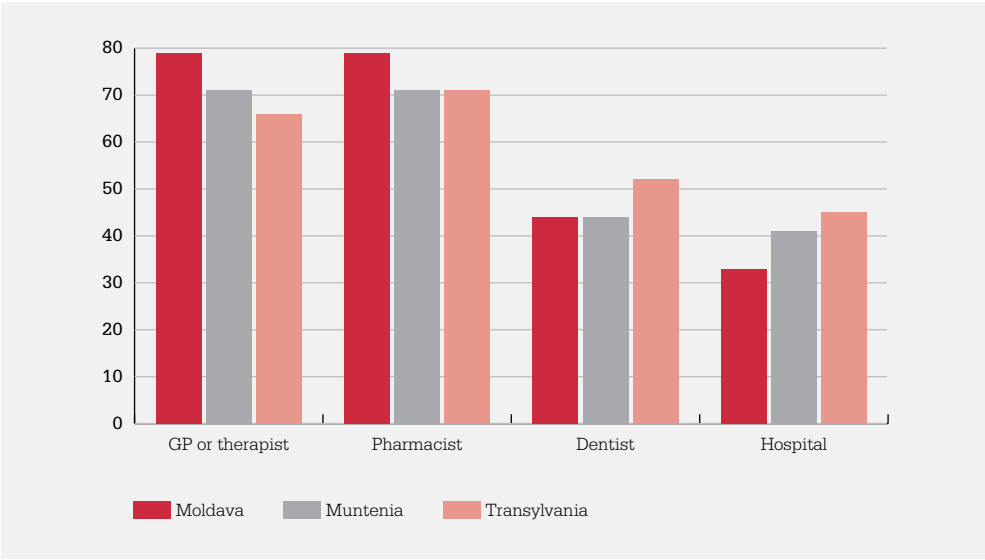


Table 55 provides the results of a list of 15 items which, together, indicate the patients' experiences and opinions concerning service aspects of their FD/GP practice. Possible answers were: 'Yes, I agree', 'I agree somewhat', 'I do not agree', and 'I don't know'. Percentages in the table refer to the number answering 'Yes, I agree'.

On average three quarters of all patients indicated that they could easily reach the practice or centre by public transport. For physical access to the premises for disabled people or those using a wheelchair, the answers were somewhat less positive. In all three regions there may be ground for improvement in this respect, since 50% of the respondents in Moldova and Muntenia and 56% of respondents in Transylvania answered the FD/GP doctor's office was easily accessible for these groups. Patients in Transylvania were most positive about the quality of the waiting room. Overall less than one in three patients could not agree that the waiting room was convenient

Practice websites were probably not relevant to most respondents, as more than two thirds of the patients in all three regions did not to know of their existence (not in the table). On average fewer than half of all patients were aware of the existence of a complaint mail box in their practice or centre.

In general, respondents in Muntenia had more positive experiences with opening hours and getting to doctors, either personal or by telephone than respondents in both other regions, but the differences are rather small. A large majority of patients said that during opening hours a physician was always available and that it was possible to visit a physician the same day if necessary. Two thirds of the respondents in Muntenia, but only well over half in Transylvania and Moldova answered there was a telephone number to use when they would get sick outside opening hours. Visiting a FD/GP on a weekend day seems to be an exception, and the possibility of evening visits was more common. Despite these limitations, patients were satisfied with current opening hours. A large majority of patients agreed that reception desk staff were kind and helpful, but Moldova stayed behind the other regions in this respect. Relatively small groups of respondents

agreed that making an appointment with a physician took too long. Fewer than one in five patients said the time they had to spend in the waiting room was too long.

Table 55. Experienced quality of the FD/GP practice/centre, by region

Patients agreeing with following statements	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
I can easily reach the practice by public transport.	246	63.1	669	81.1	441	75.4	1 356	75.3
The office is well accessible for disabled and people in wheelchairs.	196	50.3	418	50.7	381	56.1	995	55.3
The waiting room for patients is convenient.	309	79.2	609	73.8	479	81.9	1 397	77.6
My FD/GP's practice has a website.	65	16.7	153	18.5	99	16.9	317	17.6
In this practice or centre there is a complaint mail box that I can use to submit a complaint if I am not satisfied.	157	40.3	310	37.6	283	48.4	750	41.7
When the practice is open and I want to visit a FD/GP urgently it is possible to have the visit the same day.	303	77.7	650	78.8	481	82.2	1 434	79.7
During opening hours it is easy to get a doctor on the telephone for advice.	287	73.6	637	77.2	450	67.9	1 374	76.3
When I visit the practice there is always a doctor available.	280	71.8	710	86.1	473	80.9	1 463	81.3
When the practice is closed there is a telephone number (other than 112) to call when I get sick.	203	52.1	546	66.2	321	54.9	1 070	59.4
In this practice it is possible to visit a FD/GP on Saturdays or Sundays (for instance via a permanence service).	62	15.9	157	19.0	94	16.1	313	17.4
In this practice is possible to visit a FD/GP after 18h00 (at least once per week).	151	38.7	454	55.0	269	46.0	874	48.6
I am satisfied with the current opening hours of the practice.	316	81.0	734	89.0	512	87.5	1 562	86.8
Staff at the reception area are kind and helpful.	256	65.6	695	84.2	432	73.8	1 383	67.8
Making an appointment with my FD/GP takes too much time.	48	12.3	117	14.2	96	16.4	261	14.5
I need to wait a long time in the waiting room to see the FD/GP.	62	15.9	150	18.2	99	16.9	311	17.3

Table 56 shows the same results, but differentiated by urbanization. The differences are somewhat larger than the differences between the regions and more consistent. For instance, respondents in urban areas are less positive about most statements, except about the possibility of reaching the practice by public transport, the website of the practice, and the possibility of visiting the practice after 6 pm.

Table 56. Experienced quality of the FD/GP practice/centre, by urbanization

Patients agreeing with following statements	Urban (N=1200)		Rural (N=600)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%
I can easily reach the practice by public transport.	922	76.8	434	72.3	1 356	75.3
The office is well accessible for disabled and people in wheelchairs .	595	49.6	400	66.7	995	55.3
The waiting room for patients is convenient.	906	75.5	491	81.8	1 397	77.6
My FD/GP's practice has a website.	239	19.9	78	13.0	317	17.6
In this practice or centre there is a complaint mail box that I can use to submit a complaint if I am not satisfied.	469	39.1	281	46.8	750	41.7
When the practice is open and I want to visit a FD/GP urgently it is possible to have the visit the same day.	935	77.9	499	83.2	1 434	79.7
During opening hours it is easy to get a doctor on the telephone for advice.	905	75.4	469	78.2	1 374	76.3
When I visit the practice there is always a doctor available.	974	81.2	489	81.5	1 463	81.3
When the practice is closed there is a telephone number (other than 112) to call when I get sick.	691	57.6	379	63.2	1 070	59.4
In this practice it is possible to visit a FD/GP on Saturdays or Sundays (for instance via a permanence service).	179	14.9	134	22.3	313	17.4
In this practice is possible to visit a FD/GP after 18h00 (at least once per week).	610	50.8	264	44.0	874	48.6
I am satisfied with the current opening hours of the practice.	1 038	86.5	524	87.3	1 562	86.8
Staff at the reception area are kind and helpful.	907	75.6	476	79.3	1 383	76.8
Making an appointment with my FD/GP takes too much time.	139	11.6	122	20.3	261	14.5
I need to wait a long time in the waiting room to see the FD/GP.	205	17.1	106	17.7	311	17.3

5.3 Continuity of care

5.3.1 Longitudinal and interpersonal continuity

Although patients in Moldova saw their FD/GP somewhat more frequent, the visiting patterns in the three regions were largely identical (Table 57). Not having seen the doctor during the past year was exceptional, but home visits by FDs/GPs were much less frequent, though refusal to make a home call when asked occurred very seldom.

Table 57. Patients' visits to their FD/GP/nurse; home visits made by their FD/GP and home visits refused, previous 12 months

Visit frequency past 12 months	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
FD/GP practice								
• no visits	18	4.6	20	2.4	18	3.1	56	3.1
• 1–3 visits	97	24.9	224	27.2	209	35.7	530	29.4
• 4–6 visits	76	19.5	193	23.4	149	25.5	418	23.2
• 7–9 visit	27	6.9	66	8.0	43	7.4	136	7.6
• 10–12 visits	103	26.4	226	27.4	125	21.4	454	25.2
• 13 or more visits	69	17.7	96	11.6	41	7.0	206	11.4
Total doctor visits	390	100	825	100	585	100	1 800	100
Average annual visit frequency with physician	9.36		7.84		6.48		7.73	
Home visit								
• no visits	316	81.0	613	74.3	479	81.9	1408	78.2
• 1–3 visits	52	13.3	135	16.4	84	14.4	271	15.1
• 4–6 visits	17	4.4	43	5.2	10	1.7	70	3.9
• 7–9 visit	3	0.8	10	1.2	3	0.5	16	0.9
• 10–12 visits	1	0.3	15	1.8	6	1.0	22	1.2
• 13 or more visits	1	0.3	9	1.1	3	0.5	13	0.7
Total home visits	390	100	825	100	585	100	1 800	100
Average annual home visit frequency	0.62		1.01		0.56		0.78	
Home visit refused								
• no visits	389	99.7	822	99.6	576	98.5	1787	99.3
• 1–3 visits	1	0.3	1	0.1	8	1.4	10	0.6
• 4–6 visits	0	0	1	0.1	1	0.2	2	0.1
• 7–9 visit	0	0	0	0	0	0	0	0
• 10–12 visits	0	0	1	0.1	0	0	1	0.1
• 13 or more visits	0	0	0	0	0	0	0	0
Total home visits refused	1/390	0.3	3/825	0.4	9/585	1.5	13/1 800	0.7
Reason(s) for refusing a home visit								
My FD/GP was not available or absent.	0		0		2		2	
I was told a home visit was not necessary.	0		1		3		4	
Another reason	0		0		0		0	
I do not know the reason.	1		2		4		7	
Nurse								
- no visits	229	58.7	568	68.8	455	77.8	1 252	69.6
- 1–3 visits	40	10.3	167	20.2	100	17.1	307	17.1
- 4–6 visits	33	8.5	50	6.1	20	3.4	103	5.7
- 7–9 visit	15	3.8	10	1.2	2	0.3	27	1.5
- 10–12 visits	27	6.9	21	2.5	8	1.4	56	3.1
- 13 or more visits	46	11.8	9	1.1	0	0	55	3.1
Total nurse visits	390	100	825	100	585	100	1 800	100
Average annual nurse visit frequency	4.53		1.24		0.63		1.75	
Reason(s) for visiting a nurse only								
My FD/GP was absent.	12	7.5	19	7.4	12	9.2	43	7.8
My FD/GP was busy with other patients.	6	3.7	20	7.8	8	6.2	34	6.2
The FD/GP was not necessary.	97	60.2	133	51.8	69	53.1	299	54.6
Just collected repeat prescription.	86	53.4	92	35.8	40	30.8	218	39.8
Another reason.	0	0	0	0	0	0	0	0
I do not know the reason.	4	2.5	25	9.7	7	5.4	36	6.6

Patients visited a nurse in the past year on average almost twice. The majority in all three regions answered they had not visited a nurse in the previous year. As with the visits to the FD/GP, the category reporting more than 12 visits was highest in Moldova. The most often mentioned reason for seeing only a nurse was that seeing the FD/GP was not necessary for what the patient needed.

The focus of this section is on the perceived functioning of the primary care physician in the personal relationship with the patients. Important aspects in this evaluation are communication between the doctor and the patient, how patients perceive their doctors' competence and the patients' trust and confidence in doctors. Basic to this evaluation are conditions for a relationship between doctor and patient; for instance personal continuity and the time FDs/GPs have available for a consultation. Before explaining details of the patients' evaluation, Tables 58 and 59 will deal with some conditions for continuity.

Table 58. Patients' experiences related to their FD/GP, by region

Contact experiences and statements	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Length of time being a patient with this FD/GP								
• less than one year	15	3.8	35	4.2	16	2.7	66	3.7
• 1–3 years	22	5.6	118	14.3	41	7.0	181	10.1
• more than 3 years	347	89.0	655	79.4	507	86.7	1 509	83.8
• Don't know	6	1.5	17	2.1	21	3.6	44	2.4
If I visit a FD/GP in my practice I see the same doctor each visit	357	91.5	777	94.2	546	93.3	1680	93.3
Estimated duration of a consultation								
• up to 5 minutes	3	0.8	3	0.4	6	1.0	12	0.7
• 6–10 minutes	36	9.2	80	9.7	127	21.7	243	13.5
• 11–15 minutes	126	32.3	248	30.1	225	38.5	599	33.3
• more than 15 minutes	225	57.7	494	59.9	227	38.8	946	52.6
Average length of a consultation (in minutes)	19.63		20.45		17.32		19.26	
Estimated time between making an appointment and visiting the FD/GP								
• the visit is the same day	220	56.4	372	45.1	261	44.6	853	47.4
• I have to wait 1 day	107	27.4	175	21.2	168	28.7	450	25.0
• 2–3 days	19	4.9	111	13.5	56	9.6	186	10.3
• more than 3 days	20	5.1	31	3.8	19	3.2	70	3.9
• I never make appointments	4	1.0	69	8.4	38	6.5	111	6.2
• I don't know	20	5.1	67	8.1	43	7.4	130	7.2
My FD/GP knows my personal situation (e.g. work or home situation).	304	77.9	548	66.4	436	74.5	1 288	71.6
My FD/GP knows the problems and illnesses that I had in the past (from my medical records).	367	94.1	758	91.9	532	90.9	1 657	92.1
My FD/GP takes sufficient time to talk to me.	363	93.1	735	89.1	549	93.8	1 647	91.5
My FD/GP listens well to me.	364	93.3	740	89.7	556	95.0	1 660	92.2
My FD/GP does not just deal with medical problems but can also help with personal problems and worries.	205	52.6	379	45.9	252	43.1	836	46.4

Contact experiences and statements	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
My FD/GP gives clear explanations about my illnesses and prescribed medicines.	348	89.2	725	87.9	529	90.4	1 602	89.0
My FD/GP would visit me at home if I asked for it.	333	85.4	642	77.8	513	87.7	1 488	82.7
After a visit to my FD/GP I feel able to cope better with my health problems/ illness.	337	86.4	604	73.2	418	71.5	1 359	75.5
When I have a new health problem, I go to my FD/GP before going to a medical specialist.	363	93.1	723	87.6	540	92.3	1 626	90.3
My FD's/GP's practice has sufficient medical equipment.	320	82.1	616	74.7	447	76.4	1383	76.8

The conditions for continuous doctor-patient relationships were good. Practice populations seemed to be relatively stable. Almost 80% or more of all patients had been with their doctor for more than three years (Table 59). Being registered with a physician meant that a large majority of patients saw that doctor every time they visited the practice. The consultation length in both regions was relatively long, averaging almost 20 minutes. The differences between urban and rural areas on these items were small, with a slightly longer estimated duration of consultations in rural areas and waiting times of more than one day more often in urban areas (Table 59).

Table 59. Patients' experiences related to their FD/GP, by urbanization

Contact experiences and statements	Urban (N=1200)		Rural (N=600)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%
Length of time being a patient with this FD/GP						
• less than one year	45	3.8	21	3.5	66	3.7
• 1–3 years	124	10.3	57	9.5	181	10.1
• more than 3 years	996	83.0	513	85.5	1509	83.8
• I don't know	35	2.9	9	1.5	44	2.4
If I visit a FD/GP in my practice I see the same doctor each visit.	1108	92.3	572	95.3	1680	93.3
Estimated duration of a consultation						
• up to 5 minutes	11	0.9	1	0.2	12	0.7
• 6–10 minutes	171	14.3	72	12.0	243	13.5
• 11–15 minutes	406	33.8	193	32.2	599	33.3
• more than 15 minutes	612	51.0	334	55.7	946	52.6
Average length of a consultation (in minutes)	19.14		19.52		19.26	
Estimated time between making an appointment and visiting the FD/GP						
• the visit is the same day	523	43.6	330	55.0	853	47.4
• I have to wait 1 day	316	26.3	134	22.3	450	25.0
• 2-3 days	141	11.8	45	7.5	186	10.3
• more than 3 days	60	5.0	10	1.7	70	3.9
• I never make appointments	80	6.7	31	5.2	111	6.2
• I don't know	80	6.7	50	8.3	130	7.2

Contact experiences and statements	Urban (N=1200)		Rural (N=600)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%
My FD/GP knows my personal situation (e.g. work or home situation).	803	66.9	485	80.8	1 288	71.6
My FD/GP knows the problems and illnesses that I had in the past (from my medical records).	1 098	91.5	559	93.2	1 657	92.1
My FD/GP takes sufficient time to talk to me.	1 092	91.0	555	92.5	1 647	91.5
My FD/GP listens well to me.	1 108	92.3	552	92.0	1 660	92.2
My FD/GP does not just deal with medical problems but can also help with personal problems and worries.	510	42.5	326	54.3	836	46.4
My FD/GP gives clear explanation about my illnesses and prescribed medicines.	1 073	89.4	529	88.2	1 602	89.0
My FD/GP would visit me at home if I asked for it.	971	80.9	517	86.2	1 488	82.7
After a visit to my FD/GP I feel able to cope better with my health problem/illness.	878	73.2	481	80.2	1 359	75.5
When I have a new health problem, I go to my FD/GP before going to a medical specialist.	1 075	89.6	551	91.8	1 626	90.3
My FD/GP's practice has sufficient medical equipment.	919	76.6	464	77.3	1 383	76.8

The lower lines in Tables 58 and 59 summarize the patients' evaluation of their doctor. A large majority of patients were positive about their doctor's knowledge of their personal situation. On average more than 90% of the respondents assumed that their doctor would know about their past problems and illnesses from their medical records. Communication skills, such as listening and giving explanation, were also widely appreciated. Except for the expected doctor's knowledge of their personal situation, there were no real differences among patients by urbanization. Fewer than half of the patients said their doctor could also help with personal problems and worries, Somewhat more in Moldova and rural areas. On average nine out of ten patients indicated they would go to their FD/GP with a new health problem, before seeking help from a medical specialist. The majority of patients have no complaints about the equipment in their doctor's practice. On average one quarter disagreed that equipment was sufficient. There was no difference in this respect between urban and rural practices. It is likely that the patients' view is based on more than just medical equipment, including the state and quality of the equipment, while the physicians answered their equivalent question based on availability alone. It may be concluded that doctors and patients do not strongly disagree about the available equipment, in any case.

Table 60. Patients' assessment of FD/GPs involvement in promoting healthy behaviour

Topics of health promotion	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Eating healthy	365	93.6	774	93.8	506	86.5	1645	91.4
Taking physical exercise	343	87.9	680	82.4	449	76.8	1472	81.8
Use of alcohol	309	79.2	555	67.3	346	59.1	1210	67.2
Reduce or stop smoking	304	77.9	561	68.0	350	59.8	1215	67.5

More patients in Moldova than in Muntenia and Transylvania reported that their doctor talked with them about eating healthy, taking physical exercise and alcohol and smoking behaviour (see Table 60). In each of the three regions FDs/GPs most often talked about eating healthy and taking physical exercise.

5.3.2 Perceptions of coordination of care and choice of provider

Most patients had chosen their doctor themselves, or had someone in the family do so. Assignment to a doctor was very rare, as seen in Table 61. The answers about the freedom to change doctors did not vary with location. In Moldova Muntenia more patients reported they could not change doctors than in Transylvania.

Table 61. Patients' freedom to choose and change their FD/GP

Option	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Patients reporting being assigned to the doctor	30	7.7	17	2.1	1	0.2	14	1.3
Patients reporting they cannot change to another doctor	74	19.0	129	15.6	52	8.9	255	14.2

Tables 62 and 63 contain results related to patients' experiences with collegial exchange of information and cooperation. Patients generally did not have very positive views about the exchange of information between their own physician and other treating physicians (Table 63). The need to visit their FD/GP before having access to secondary and tertiary care was clear to the majority of patients in all three regions.

There was a general agreement that FDs/GPs and nurses worked well together, with 20–40% of respondents indicating that independent nurse consultations at times made FD/GP consultations unnecessary.

Table 63 presents results by urbanization; differences are small. Patients in urban areas were only somewhat less positive about the first statement than rural patients, but twice as many rural respondents mentioned nurses making independent consultations that made FD/GP consultation unnecessary.

Table 62. Patients' experiences with their FD/GP information and cooperation, by region

Statements	Moldova (N=390)		Muntenia (N=825)		Transylvania (n=585)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
If I visit another doctor, my own FD/GP has all the necessary information about me.	160	41.0	351	42.5	201	34.4	712	39.6
When I am referred, my FD/GP informs the medical specialist about my illness.	232	59.5	574	69.6	357	61.0	1163	64.6
If I have been treated by a medical specialist, my FD/GP knows the results of it.	346	88.7	731	88.6	497	85.0	1574	87.4
To see a specialist, I first need to visit my FD/GP for a referral.	351	90.0	713	86.4	526	89.9	1590	88.3
My FD/GP and the practice nurse work well together.	336	86.2	694	84.1	543	92.8	1573	87.4
Sometimes a nurse does the consultation, making it unnecessary to see my FD/GP.	150	38.5	224	27.2	119	20.3	493	27.4

Table 63. Patients' experiences with the information provided by their GPs/FDs, and coordination, by urbanization

Statements	Urban (N=1200)		Rural (N=600)		Total (N=1800)	
	Abs.	%	Abs.	%	Abs.	%
If I visit another doctor than my own FD/GP, he/she has all the necessary information about me.	448	37.7	264	44.0	712	39.6
When I am referred, my FD/GP informs the medical specialist about my illness.	769	64.1	390	65.7	1163	64.6
If I have been treated by a medical specialist, my FD/GP knows the results of it.	1055	87.9	519	86.5	1574	87.4
To see a specialist, I first need to visit my FD/GP for a referral.	1056	88.0	534	89.0	1590	88.3
My FD/GP and the practice nurse work well together.	1044	87.0	529	88.2	1573	87.4
Sometimes a nurse does the consultation, making it unnecessary to see my FD/GP.	249	20.8	244	40.7	493	27.4

6. SUMMARY

Table 64 below provides an overview of the results and conclusions, structured according to the health system functions, selected dimensions and proxy indicators, as outlined in the Primary Care Evaluation Scheme in Chapter 1.

Table 64. Summary of findings from the PCET/PQCMT in Romania

Selected dimension	Selected information items	Selected proxies / findings	Background to findings	Source
Stewardship				
Policy development	Primary care as priority area	Specific legislation developed concerning primary care: Yes Department at the Ministry of Health specifically dealing with primary care: No	From 20006, several important policy documents related to primary care have been issued, including: a. Health Insurance Act of 1997; b. Health Reform Act of 2006 that included family medicine; c. Presidency Health Commission Report of 2008 "A Health System Focused on Citizen's Needs" describing primary care as key to coherent and responsive health care. No special department for primary care in the Ministry of Health	National level questionnaire.
	Regional variation		No regional differences in the organization of primary care, but decentralization is proceeding and the influence of local governments is expected to grow.	National level questionnaire
Conditions for the care process	Recent primary care policy development	The following items are priorities in primary care: • multidisciplinary teams • more diverse primary care services • human development • information technology • evidence-based medicine • quality indicators • increased primary care funding (up to 10–15% of the total budget NHIH) • revision of basic benefit package; copayment for certain services.	Policy priorities focus on coordination, professional development, strengthening the primary level and cost containment.	National level questionnaire

Selected dimension	Selected information items	Selected proxies / findings	Background to findings	Source
Conditions for responsiveness	Involvement of professionals and patients in policy process	Professionals: College of Physicians: SNMF and FNPMF have a consultative role. Order of Nurses and Midwives: contribute. Trade Union of Nurses indirect by involved in policy processes. Patients associations: Have the right to attend meetings of consultative committees at Ministry of Health. Ministry organizes consultations with umbrella patient organizations. Patients represented in administrative councils of NHIF and DHIH.	Professional organizations are formally involved in the policy process; in the legislation no mention is made of a role for a specific primary care organization. Patient organizations are represented at ministerial level and with health insurance.	National level questionnaire
	Patient rights	Four laws ruling protection of patient rights: Patients' Rights Act of 2003 Act on Personal Data of 2001 Mental Health Promotion Act of 2002 Act on Protection of HIV and AIDS Patients of 2002 Complaint procedure: Law 46/2003 on patients' rights does not stipulate complaint procedure No obligation for primary care centres / FD/GP practices	The Discipline Commission of the College of Physicians is responsible for the procedural aspects of complaints in primary care. However, complaint procedures are not obligatory in primary care.	National level questionnaire
Financing				
Incentives for providers		Employment status of primary care physicians: 76% self-employed	FDs/GPs are paid a mix of capitation fee and fee for certain services.	National level questionnaire
Financial access for patients		Copayments apply to prescribed drugs. 65% of patients reported copayments for drugs prescribed in primary care. 21% of patients reported payments for a visit to a medical specialist. 10% of patients reported to have abstained from a doctor visit for financial reasons.	The benefit package of health services is considered to be comprehensive by the Ministry of Health. Benefits packages may soon be revised under pressure of economic problems; possible introduction of copayments for primary care services.	National level questionnaire Patient survey

Selected dimension	Selected information items	Selected proxies / findings	Background to findings	Source
Resource generation				
Professional development	Workforce	30% of all active physicians in Romania working in primary care (36% according to HFA data) Average list size urban physicians: 2 045 patients Average list of rural physicians:1 897 patients	On average 1 FD/GP per 1 900 population (Ministry of Health data) (according to HFA data 1 149 inhabitants per GP) The list size of both urban and rural physicians is around the national norm of 1 800 – 2 200.	National level questionnaire FD/GP survey
	Shortages	FDs/GPs reporting staff shortage: 10% in Transylvania 9% in Moldova 7% in Muntenia	No nationwide shortage of FDs/GPs. Fewer than 10% of FDs/GPs report staff shortage. However, distribution is unequal so shortages still exist in some regions, both among FDs/GPs and among other primary care professions, in particular nurses and support staff but also midwives, dentists, physiotherapists and pharmacists.	National level questionnaire FD/GP survey
	Quality improvement	Routine primary care quality maintenance mechanisms: • inspection of medical files by DHIH / Ministry of Health • investigations of adverse events • mandatory 5-year (re) certification with CME requirements • routine outcome measures on mother and child care. Not well developed yet: • voluntary peer visitation • evidence-based medicine benchmarking Number of hours per month spent on: • professional reading: around 20 hrs • training / courses: 8 hrs	Data on drug prescriptions, services provided and FDs/GPs' utilization of resources (gathered by health insurance) are not used for quality; only for contractual issues. The College of Physicians and the Ministry of Health can take measures in adverse events. CME requirement for recertification: 200 points (=hrs) per 5 years. Informal assessments occasionally made by NCSF. Pay for performance system and fee-for-services are meant to improve the quality of care. Voluntary/informal quality assurance initiatives seem to be scarce.	National level questionnaire FD/GP survey
	Human resources planning	Almost a quarter of medical graduates have chosen to enrol in family medicine.	A key element in the report "A Health System Focused on Citizens' Needs" is investment in human capital in primary care. However, a significant part of medical graduates choose the residency programme in FM as a temporary solution. The number of medical graduates in FM has slightly decreased over the last years (as has the total number of medical graduates).	National level questionnaire

Selected dimension	Selected information items	Selected proxies / findings	Background to findings	Source
	Professional organization	FM has been recognized as a speciality. Postgraduate programme in family medicine (3 yrs) is offered at all 12 medical universities. Number of professors in FM: 8	15 months of the 3-year training programme in family medicine is spent in a primary care practice.	National level questionnaire
Medical equipment		Computer available: 97% of all FDs/GPs Medical equipment available (from a list of 30 items): FDs: 20 items GPs: 19 items Laboratory facilities available: Within practice: 36% Outside practice: 14% None/insufficient : 40% X-ray facilities available: Within practice: 36% Outside practice: 21% None/insufficient : 43%	Computers are widely used for keeping medical records and searching for information. Administrative applications are sparsely used (booking appointments, financial administration). There are possibilities to improve the equipment situation. For example, more than 80% of FDs/GPs had no emergency kit; two-thirds had no equipment for blood sugar tests, vision chart, ECG or otoscope. Poor diagnostic conditions; laboratory and X-ray facilities are not or insufficiently available to well over 40% of FDs/GPs.	FD/GP survey Patient survey
		Patients finding equipment sufficient: 77%	Their FDs/GPs' medical equipment does not seem to be a ground for discontent among patients.	Patient survey
Delivery of care				
- Accessibility				
Geographical access		Patients travelling up to 20 minutes to FD/GP practice: 70.8%	Most patients live a short distance from FD/GP practice and pharmacist. Hospital and dentists were farther away from home, usually more than 20 minutes.	Patient Survey
Organizational access	Practice population	Reported number of patients per GP: Moldova urban: 2 324 rural l: 2 344 Muntenia urban: 2 089 rural: 1 659 Transylvania urban: 2 045 rural: 1 897	Moldovan FD/GP practices are generally larger than those in Muntenia and Transylvania. Rural practices are smaller than urban practices, except in Moldova. Moldovan rural practices are one third larger than rural practices in the other regions.	FD/GP survey
	Workload	Office patient consultations per day: FDs: 26.3 GPs: 24.4 Home visits per week FDs: 6.8 per week GPs: 6.9 Working hours per week FDs: 39.7 hours GPs: 41.9 hours	Differences in workload between FDs and GPs are small. In Muntenia and Transylvania urban FDs/GPs have larger list sizes than their rural colleagues. Urban FDs/GPs have more patient consultations per day than rural FDs/GPs. The number of working hours is slightly lower for urban than for rural FDs/GPs, except in Moldova.	FD/GP survey

Selected dimension	Selected information items	Selected proxies / findings	Background to findings	Source
	Patients' access and availability of services	Reported visiting frequency of patients to their GP: 7.7 visits per year Reported average length of a patient consultation per patient: 19.3 minutes Physicians offering same day consultation >90% Patients reporting same day consultations if demanded: 79.7% Physicians offering evening opening at least once per week:63% Patients reporting evening opening at least once per week:48.9%	Patients in Moldova visit their FD/GP more often than in Muntenia and Transylvania (9.4, 7.8 and 6.5 times respectively). Consultations between 6-15 minutes were reported by fewer than 10% of the respondents in Moldovia and Muntenia, and 22% in Transylvania. Patients are usually able to see their FD/GP the same day. Out-of-hours services by FDs/GPs are poorly available; 17.4% of patients can visit a FD/GP on the weekend, while half (48.9%) reported being able to visit the practice after 6 pm at least once a week. Nevertheless, almost 90% reported to be satisfied with current opening hours.	Patient survey FD/GP survey
- Coordination				
Cohesion	Practice management	FDs/GPs type of practice: solo practice: 68.1% with 2 or more primary care physicians in same building:22% with medical specialists in the same building: 6.8% other type: 0.2% FDs/GPs working with a practice nurse: 98%	Solo practice is the dominat type of practice. It is more frequent in Moldova (74%) than in Muntenia (66.7%) and Transylvania (68.1%) The availability of other disciplines (such as community nurses, midwifes, dentists, pharmacists) in the same premises is relatively rare.	FD/GP survey
	Collaboration	FDs/GPs% reporting to have regular face-to-face meetings with: other GP: 55% practice nurse: 54% community nurse:10% midwife:3% pharmacists:23%	In Moldova more FDs/GPs having such regular meetings than in Muntenia and Transilvania.	FD/GP survey
Coordination with other care levels	Referral system	Almost all (90%) of patients indicate visiting their FD/GP with a new health problem before seeking specialist care. Reported referral rate (% of all office and home care contacts) FDs: 11.3% GPs: 8.8% rural FDs/GPs: 8.9% urban FDs/GPs: 12.1%	This equally applies to urban and rural regions. Most referrals were reportedly made to internists, gynaecologists and neurologists. In urban areas more patients are referred to all specialists except oncologists.	Patient survey FD/GP survey
	Collaboration with secondary level	Contacts with other care levels: paediatricians: 82.7% internists: 94.3% gynaecologists: 95.3% surgeons:89.9% neurologists:94.6% dermatologists:92.1%	Contacts with other medical specialists are widespread. Most FDs/GPs frequently or sometimes seek medical advice from the mentioned specialists.	FD/GP survey

Selected dimension	Selected information items	Selected proxies / findings	Background to findings	Source
- Continuity				
Informational continuity		FDs/GPs reporting keeping routine medical records of all patient contacts: FDs: 90% GPs: 94% FDs/GPs reporting routine use of referral letters: FDs: 80% GPs: 75%	Keeping clinical records is a routine among FDs/GPs, but generating a list of patients by diagnosis or health risk is difficult for more than 1/3 of FDs and more than half of GPs. Routine use of referral letters is widespread.	FD/GP survey
Longitudinal continuity		Patients reporting having been with their FD/GP for 1 year or longer: 93.9% Patients reporting seeing the same doctor each visit: 93.3%	Conditions for a continued doctor-patient relationship are good.	Patient survey
Interpersonal continuity		Patients having been with their FD/GP for more than three years: 83.8%	A large majority are positive about their doctor's knowledge of their personal situation. Communication skills of doctors (e.g. listening skills and giving explanations) were well appreciated. However, only about half of the patients (46.4%) indicate that their FD/GP would deal with personal problems and worries as well.	Patient survey
- Comprehensiveness				
Practice conditions	Convenience	Patients reporting the practice was well accessible for disabled and people in wheelchairs: 55.3% Patients reporting the waiting room was convenient: 77.6%	Only a small majority indicated easy physical access of the practice. Patients were positive about the waiting areas.	Patient survey
	Information materials	FDs/GPs about information materials in the waiting room: Highest: • cardiovascular disease risks: 93.3% • Smoking cessation: 86.7% • Healthy diet: 88.4% Lowest • social services: 48.4% • self treatment: 24% Information from pharmaceutical companies: 59.7%	In most waiting rooms information from the pharmaceutical industry is dominant. Information on social services is often absent and materials about self-treatment are usually missing.	FD/GP survey
Services delivery	Population groups served	Consolidated scores for: FD/GP as doctor of first contact (based on 18 items; range of score 1-4): 2.57	For social, relational and sexual problems GPs are not seen as first point of contact.	FD/GP survey

Selected dimension	Selected information items	Selected proxies / findings	Background to findings	Source
	FD/GP involvement in treatment of diseases	Consolidated scores for: involvement of FD/GP in the treatment of 19 diseases (based on 18 items; range of score 1- 4): 3.1	Differences among the regions are small. It turns out that rural physicians report being more involved in the treatment of diseases than their urban colleagues.	FD/GP survey
	Provision of preventive and medical technical procedures	Consolidated score for: provision of medical procedures and prevention by FDs/GPs: (based on 16 items; range of score 1-4): 1.33 Coverage of public health activities (based on 8 items = 100%): by FDs/GPs on a routine basis: 69.3% By themselves: 21.9% By referral: 47.4% Performing cervical cancer screening FDs/GPs: 13.8 % Patients assessment of involvement of physician in promoting healthy eating: 91.4%	The role of primary care physicians in medical procedures is extremely limited: minor surgical, ophthalmological and gynaecological procedures are rarely done. Physicians indicated involvement in public health activities but more on a referral basis than by performing the activities themselves. Most patients said their FD/GP talked with them about life style issues such as eating habits (91.4%), exercise (81.8%) and alcohol use (67.2%) and smoking habits (67.5%).	FD/GP survey Patient survey
	Mother/child and reproductive health care	FDs/GPs providing routine antenatal care: 87.7%	More than three quarters of the FDs/GPs is involved in routine antenatal care, immunizations to children under 4, routine paediatric surveillance and promotion of breastfeeding. Family planning and contraception is provided by half of the FDs/GPs. Moldovan FDs/GPs are more involved in each of these five routine services than those in Muntenia and Transilvania. Rural physicans are more involved in the provision than their urban colleagues.	FD/GP survey
Community orientation		FDs/GPs reporting regular meetings with local authorities: 18.8%	In none of the regions were the connections with the local authorities strong.	FD/GP survey

ANNEX 1. TABLES 35–40

Table 35. FD/GPs role as first contact for patients' health problems, by region

FD/GP estimated to be the first contact in case of:	Moldova (N=73)			Muntenia (N=177)			Transylvania (n=155)			Total (N=405)		
	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N
Child with rash	90 (7)	100 (-)	68 / 5	77 (12)	78 (6)	145 / 32	87 (5)	90 (10)	145 / 10	84 (8)	83 (6)	358 / 47
Child with severe cough	93 (6)	100 (-)	68 / 5	80 (10)	84 (-)	145 / 32	85 (6)	90 (10)	145 / 10	84 (8)	87 (2)	358 / 47
Child age 7 with enuresis	77 (18)	80 (20)	68 / 5	59 (17)	69 (3)	145 / 32	62 (19)	90 (-)	145 / 10	63 (18)	75 (4)	358 / 47
Child age 8 with hearing problem	74 (13)	60 (20)	68 / 5	54 (16)	69 (3)	145 / 32	61 (10)	60 (20)	145 / 10	60 (13)	66 (9)	358 / 47
Woman age 18 asking for oral contraception	72 (21)	60 (40)	68 / 5	52 (28)	47 (22)	145 / 32	37 (33)	40 (40)	145 / 10	50 (29)	47 (28)	358 / 47
Woman age 20 for confirmation of pregnancy	81 (13)	60 (40)	68 / 5	66 (21)	56 (28)	145 / 32	56 (18)	50 (20)	145 / 10	65 (18)	55 (28)	358 / 47
Woman age 35 with irregular menstruation	78 (18)	60 (40)	68 / 5	69 (24)	72 (13)	145 / 32	66 (18)	80 (20)	145 / 10	70 (20)	72 (17)	358 / 47
Woman age 50 with lump in the breast	81 (13)	60 (40)	68 / 5	74 (23)	75 (16)	145 / 32	75 (15)	80 (20)	145 / 10	75 (18)	75 (19)	358 / 47
Woman age 60 with poly-uria	81 (16)	60 (40)	68 / 5	75 (17)	81 (13)	145 / 32	75 (14)	100 (-)	145 / 10	76 (15)	83 (13)	358 / 47
Anxious man age 45	62 (25)	60 (40)	68 / 5	63 (23)	63 (25)	145 / 32	55 (26)	80 (10)	145 / 10	60 (25)	66 (23)	358 / 47
Man age 28 with a first convulsion	53 (24)	40 (60)	68 / 5	34 (21)	25 (38)	145 / 32	37 (21)	40 (40)	145 / 10	39 (22)	30 (40)	358 / 47
Physically abused child	35 (18)	- (60)	68 / 5	17 (18)	6 (6)	145 / 32	10 (14)	40 (-)	145 / 10	18 (16)	13 (11)	358 / 47
Couple with relationship problems	38 (24)	- (80)	68 / 5	23 (32)	16 (28)	145 / 32	12 (21)	20 (40)	145 / 10	22 (26)	15 (36)	358 / 47
Man with suicidal inclination	28 (21)	- (60)	68 / 5	11 (19)	9 (9)	145 / 32	9 (10)	30 (30)	145 / 10	13 (16)	13 (19)	358 / 47
Woman age 35 with psychosocial problems related to work	40 (31)	40 (40)	68 / 5	26 (26)	16 (9)	145 / 32	25 (15)	50 (20)	145 / 10	28 (23)	26 (15)	358 / 47
Man age 32 with sexual problems	35 (31)	40 (20)	68 / 5	24 (39)	22 (25)	145 / 32	14 (29)	40 (20)	145 / 10	22 (33)	28 (23)	358 / 47
Man age 52 with alcohol addiction problems	47 (24)	20 (80)	68 / 5	30 (38)	28 (38)	145 / 32	26 (32)	40 (30)	145 / 10	32 (33)	30 (40)	358 / 47
Man with symptoms of TB	62 (24)	60 (40)	68 / 5	52 (29)	47 (34)	145 / 32	39 (18)	70 (10)	145 / 10	49 (24)	53 (30)	358 / 47
TOTAL SCORE First contact**	**2.92**	**2.83**		**2.50**	**2.43**		**2.46**	**2.83**		**2.57**	**2.55**	

* Percentages are the sum of the answers "(almost) always" and "usually"; percentages in brackets refer to the answer "occasionally".
** Responses have been weighted as follows: seldom/never = 1; occasionally = 2; usually = 3; (almost) always = 4.

Table 36. FD/GPs role as first contact for patients' health problems, by urbanization

FD/GP estimated to be the first contact in case of:	Urban (N=274)			Rural (N=128)			Total (N=402)		
	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N
Child with rash	80 (10)	76 (9)	241 / 33	93 (4)	100 (-)	114 / 14	84 (8)	83 (6)	355 / 47
Child with severe cough	82 (8)	82 (3)	241 / 33	91 (7)	100 (-)	114 / 14	85 (7)	87 (2)	355 / 47
Child age 7 with enuresis	56 (20)	64 (6)	241 / 33	79 (12)	100 (-)	114 / 14	64 (18)	75 (4)	355 / 47
Child age 8 with hearing problem	55 (14)	52 (12)	241 / 33	73 (11)	100 (-)	114 / 14	61 (13)	66 (9)	355 / 47
Woman age 18 asking for oral contraception	41 (32)	33 (33)	241 / 33	69 (20)	79 (14)	114 / 14	50 (29)	47 (28)	355 / 47
Woman age 20 for confirmation of pregnancy	61 (19)	55 (27)	241 / 33	74 (17)	57 (29)	114 / 14	65 (18)	55 (28)	355 / 47
Woman age 35 with irregular menstruation	66 (22)	67 (18)	241 / 33	77 (17)	86 (14)	114 / 14	70 (20)	72 (17)	355 / 47
Woman age 50 with lump in the breast	78 (18)	60 (40)	241 / 33	69 (24)	72 (13)	114 / 14	70 (20)	72 (17)	355 / 47
Woman age 60 with polyuria	76 (16)	76 (18)	241 / 33	77 (14)	100 (-)	114 / 14	76 (15)	83 (13)	355 / 47
Anxious man age 45	81 (16)	60 (40)	241 / 33	75 (17)	81 (13)	114 / 14	76 (15)	83 (13)	355 / 47
Man age 28 with a first convulsion	35 (22)	24 (42)	241 / 33	47 (20)	43 (36)	114 / 14	39 (21)	30 (40)	355 / 47
Physically abused child	15 (17)	9 (12)	241 / 33	24 (14)	21 (7)	114 / 14	18 (16)	13 (11)	355 / 47
Couple with relationship problems	20 (29)	12 (42)	241 / 33	24 (20)	21 (21)	114 / 14	21 (26)	15 (36)	355 / 47
Man with suicidal inclination	12 (17)	18 (15)	241 / 33	17 (12)	- (29)	114 / 14	14 (16)	13 (19)	355 / 47
Woman age 35 with psychosocial problem related to work	28 (25)	30 (9)	241 / 33	28 (18)	14 (29)	114 / 14	28 (23)	26 (15)	355 / 47
Man age 32 with sexual problems	23 (35)	30 (21)	241 / 33	19 (35)	30 (21)	114 / 14	22 (33)	28 (23)	355 / 47
Man age 52 with alcohol addiction problems	31 (34)	30 (42)	241 / 33	34 (30)	29 (36)	114 / 14	32 (33)	30 (40)	355 / 47
Man with symptoms of TB	42 (27)	39 (42)	241 / 33	65 (17)	86 (-)	114 / 14	49 (23)	53 (30)	355 / 47
TOTAL SCORE First contact**	**2.51**	**2.38**		**2.71**	**2.85**		**2.58**	**2.55**	

* Percentages are the sum of the answers "(almost) always" and "usually"; percentages in brackets refer to the answer "occasionally".
** Responses have been weighted as follows: seldom/never = 1; occasionally = 2; usually = 3; (almost) always = 4.

Table 37. FD/GPs involvement in treatment and follow up of diseases, by region

FDs/GPs' involvement in treatment of:	Moldova (N=73)			Muntenia (N=177)			Transylvania (n=155)			Total (N=405)		
	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N
Hyperthyroidism	84 (9)	80 (40)	68 / 5	82 (16)	59 (28)	145 / 32	85 (10)	80 (20)	145 / 10	84 (12)	66 (26)	358 / 47
Chronic bronchitis	93 (3)	80 (20)	68 / 5	94 (6)	96 (-)	145 / 32	95 (2)	100 (0)	145 / 10	94 (4)	96 (2)	358 / 47
Hordeolum (stye)	88 (9)	80 (20)	68 / 5	89 (8)	88 (9)	145 / 32	91 (6)	90 (10)	145 / 10	90 (7)	87 (11)	358 / 47
Peptic ulcer	87 (7)	80 (20)	68 / 5	87 (8)	81 (13)	145 / 32	90 (6)	100 (-)	145 / 10	88 (7)	85 (11)	358 / 47
Herniated disc lesion	87 (9)	100 (-)	68 / 5	82 (15)	81 (9)	145 / 32	90 (6)	90 (10)	145 / 10	86 (10)	85 (9)	358 / 47
Acute cerebro-vascular accident	72 (15)	60 (40)	68 / 5	56 (32)	34 (38)	145 / 32	50 (33)	60 (10)	145 / 10	57 (29)	43 (32)	358 / 47
Congestive heart failure	78 (10)	40 (60)	68 / 5	75 (17)	63 (22)	145 / 32	75 (17)	70 (10)	145 / 10	75 (15)	62 (23)	358 / 47
Pneumonia	93 (-)	80 (20)	68 / 5	93 (6)	97 (3)	145 / 32	97 (1)	100 (-)	145 / 10	95 (3)	96 (4)	358 / 47
Peritonsilar abcess	85 (7)	80 (20)	68 / 5	79 (17)	91 (3)	145 / 32	83 (10)	100 (-)	145 / 10	82 (12)	92 (4)	358 / 47
Ulcerative colitis	74 (13)	60 (20)	68 / 5	59 (27)	56 (28)	145 / 32	66 (24)	80 (20)	145 / 10	65 (23)	62 (26)	358 / 47
Salpingitis	75 (10)	80 (20)	68 / 5	56 (29)	47 (31)	145 / 32	52 (34)	70 (30)	145 / 10	58 (27)	53 (30)	358 / 47
Concussion of brain	52 (21)	40 (20)	68 / 5	33 (37)	28 (25)	145 / 32	34 (35)	50 (20)	145 / 10	37 (33)	34 (23)	358 / 47
Parkinson's disease	63 (13)	60 (20)	68 / 5	57 (24)	66 (19)	145 / 32	70 (17)	90 (10)	145 / 10	63 (19)	70 (17)	358 / 47
Uncomplicated diabetes (type II)	88 (6)	80 (20)	68 / 5	83 (9)	94 (3)	145 / 32	90 (6)	100 (-)	145 / 10	87 (7)	94 (4)	358 / 47
Rheumatoid arthritis	75 (15)	40 (60)	68 / 5	74 (17)	84 (17)	145 / 32	79 (16)	90 (10)	145 / 10	76 (16)	81 (19)	358 / 47
Depression	77 (16)	80 (20)	68 / 5	77 (19)	81 (16)	145 / 32	77 (17)	80 (20)	145 / 10	77 (17)	81 (17)	358 / 47
Myocardial infarction	46 (31)	40 (40)	68 / 5	41 (31)	22 (38)	145 / 32	41 (31)	30 (40)	145 / 10	42 (31)	26 (38)	358 / 47
Follow up TB care	75 (7)	80 (20)	68 / 5	46 (18)	28 (6)	145 / 32	43 (15)	50 (10)	145 / 10	50 (15)	38 (9)	358 / 47
TOTAL SCORE Treatment tasks**	**3.19**	**3.07**		**3.03**	**2.91**		**3.09**	**3.24**		**3.09**	**3.00**	

* Percentages are the sum of the answers "(almost) always" and "usually"; percentages in brackets refer to the answer "occasionally".
** Responses have been weighted as follows: seldom/never = 1; occasionally = 2; usually = 3; (almost) always = 4.

Table 38. FD/GPs involvement in treatment and follow up of diseases, by urbanization

FD's/GPs involvement in treatment of:	Urban (N=274)			Rural (N=128)			Total (N=402)		
	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N
Hyperthyroidism	84 (10)	58 (33)	241 / 33	84 (15)	86 (7)	114 / 14	84 (12)	66 (26)	355 / 47
Chronic bronchitis	94 (3)	94 (3)	241 / 33	96 (4)	100 (-)	114 / 14	94 (4)	96 (2)	355 / 47
Hordeolum (stye)	89 (7)	85 (12)	241 / 33	92 (7)	93 (7)	114 / 14	90 (7)	87 (11)	355 / 47
Peptic ulcer	88 (7)	79 (15)	241 / 33	89 (8)	100 (-)	114 / 14	88 (7)	85 (11)	355 / 47
Herniated disc lesion	85 (10)	85 (9)	241 / 33	90 (10)	86 (7)	114 / 14	86 (10)	85 (9)	355 / 47
Acute cerebrovascular accident	47 (34)	27 (39)	241 / 33	79 (18)	79 (14)	114 / 14	57 (29)	43 (32)	355 / 47
Congestive heart failure	67 (19)	52 (27)	241 / 33	90 (7)	86 (14)	114 / 14	76 (15)	62 (23)	355 / 47
Pneumonia	94 (3)	94 (6)	241 / 33	97 (3)	100 (-)	114 / 14	95 (3)	96 (4)	355 / 47
Peritonsilar abcess	80 (12)	88 (6)	241 / 33	86 (13)	100 (-)	114 / 14	82 (12)	92 (4)	355 / 47
Ulcerative colitis	64 (24)	49 (33)	241 / 33	68 (21)	93 (7)	114 / 14	65 (23)	62 (26)	355 / 47
Salpingitis	54 (30)	46 (36)	241 / 33	65 (24)	79 (14)	114 / 14	58 (28)	55 (30)	355 / 47
Concussion of brain	27 (36)	18 (30)	241 / 33	56 (27)	71 (7)	114 / 14	37 (33)	34 (23)	355 / 47
Parkinson's disease	58 (20)	58 (24)	241 / 33	76 (16)	100 (-)	114 / 14	64 (19)	70 (17)	355 / 47
Uncomplicated diabetes (type II)	83 (9)	91 (6)	241 / 33	96 (4)	100 (-)	114 / 14	87 (7)	94 (4)	355 / 47
Rheumatoid arthritis	73 (16)	76 (24)	241 / 33	83 (14)	93 (7)	114 / 14	77 (16)	81 (19)	355 / 47
Depression	75 (17)	73 (24)	241 / 33	80 (18)	100 (-)	114 / 14	77 (17)	81 (17)	355 / 47
Myocardial infarction	35 (33)	15 (42)	241 / 33	55 (26)	50 (29)	114 / 14	42 (31)	26 (38)	355 / 47
Follow up TB care	40 (16)	21 (12)	241 / 33	73 (11)	79 (-)	114 / 14	50 (14)	38 (9)	355 / 47
TOTAL SCORE Treatment tasks**	**2.99**	**2.79**		**3.28**	**3.48**		**3.09**	**3.00**	

* Note: percentages are sum of the answers "(almost) always" and "usually"; percentages in brackets refer to the answer "occasionally" being involved in this treatment.
** For the calculation of the score, answers have been weighted as follows: seldom/never = 1; occasionally = 2; usually = 3; (almost) always = 4.

Table 39. FD/GPs involvement in provision of medical-technical procedures, by region

Procedure usually provided by FD/GP or practice staff	Moldova (N=73)			Muntenia (N=177)			Transylvania (n=155)			Total (N=405)		
	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N
Wedge resection of ingrown toenail	7.4 (92.6)	40.0 (60.0)	68 / 5	17.9 (82.1)	3.1 (96.9)	145 / 32	6.9 (93.1)	10.0 (90.0)	145 / 10	11.5 (88.5)	8.5 (91.5)	358 / 47
Removal of sebaceous cyst from hairy scalp	8.8 (91.2)	40.0 (60.0)	68 / 5	11.0 (89.0)	6.3 93.8)	145 / 32	2.8 (97.2)	10.0 (90.0)	145 / 10	7.3 (92.7)	10.6 (89.4)	358 / 47
Wound suturing	23.5 (76.5)	40.0 (60.0)	68 / 5	24.1 (75.9)	28.1 (71.9)	145 / 32	18.6 (81.4)	30.0 (70.0)	145 / 10	21.8 (78.2)	29.8 (70.2)	358 / 47
Excision of warts	2.9 (97.1)	- (100)	68 / 5	5.5 (94.5)	- (100)	145 / 32	2.8 (97.2)	- (100)	145 / 10	3.9 (96.1)	- (100)	358 / 47
IUD insertion	1.5 (98.5)	- (100)	68 / 5	4.8 (95.2)	- (100)	145 / 32	3.4 (96.6)	10.0 (90.0)	145 / 10	3.6 (96.4)	2.1 (97.9)	358 / 47
Removal of rusty spot from cornea	14.7 (85.3)	- (100)	68 / 5	13.1 (86.9)	6.3 (93.8)	145 / 32	9.7 (90.3)	10.0 (90.0)	145 / 10	12.0 (88.0)	6.4 (93.6)	358 / 47
Fundoscopy	8.8 (91.2)	20.0 (80.0)	68 / 5	7.6 (92.4)	3.1 (96.9)	145 / 32	6.2 (93.8)	10.0 (90.0)	145 / 10	7.3 (92.7)	6.4 (93.6)	358 / 47
Joint injection	25.0 (75.0)	20.0 (80.0)	68 / 5	18.6 (81.4)	6.3 (93.8)	145 / 32	12.4 (87.6)	20.0 (80.0)	145 / 10	17.3 (82.7)	10.6 (89.4)	358 / 47
Maxillary (sinus) puncture	4.4 (95.6)	- (100)	68 / 5	6.9 93.1)	- (100)	145 / 32	4.1 (95.9)	10.0 (90.0)	145 / 10	5.3 (94.7)	2.1 (97.9)	358 / 47
Myringotomy of eardrum (paracentesis)	2.9 (97.1)	- (100)	68 / 5	3.4 (96.6)	- (100)	145 / 32	1.4 (98.6)	- (100)	145 / 10	2.5 (97.5)	- (100)	358 / 47
Applying plaster cast	5.9 (94.1)	40.0 (60.0)	68 / 5	9.7 (90.3)	6.3 (93.8)	145 / 32	6.2 (93.8)	20.0 (80.0)	145 / 10	7.5 (92.5)	12.8 (87.2)	358 / 47
Strapping an ankle	35.3 (64.7)	60.0 (40.0)	68 / 5	30.3 (69.7)	40.6 (59.4)	145 / 32	29.7 (70.3)	40.0 (60.0)	145 / 10	31.0 (69.0)	42.6 (57.4)	358 / 47
Cryotherapy (warts)	1.5 (98.5)	- (100)	68 / 5	8.3 (91.7)	- (100)	145 / 32	4.8 (95.2)	10.0 (90.0)	145 / 10	5.6 (94.4)	2.1 (97.9)	358 / 47
Setting up intravenous infusion	79.4 (20.6)	100 (-)	68 / 5	64.8 (35.2)	62.5 (37.5)	145 / 32	56.6 (43.4)	80.0 (20.0)	145 / 10	64.2 (35.8)	70.2 (29.8)	358 / 47
Immunizations for flu or tetanus	91.2 (8.8)	80.0 (20.0)	68 / 5	86.2 (13.8)	90.6 (9.4)	145 / 32	89.0 (11.0)	100 (-)	145 / 10	88.3 (11.7)	91.5 (8.5)	358 / 47
Allergy vaccinations	67.6 (32.4)	80.0 (20.0)	68 / 5	62.8 (37.2)	65.6 (34.4)	145 / 32	50.3 (49.7)	60.0 (40.0)	145 / 10	58.7 (41.3)	66.0 (34.0)	358 / 47
TOTAL SCORE Medical procedures / prevention (range 1-3)**	**1.37**	**1.45**		**1.37**	**1.28**		**1.29**	**1.43**		**1.34**	**1.33**	

* Percentages are sum of the answers "usually done by myself" and "usually done by practice staff"; percentages in brackets refer to the answers "usually done elsewhere (e.g. by medical specialist)".
** For the calculation of the score, answers have been weighted as follows: usually done by medical specialist = 1; usually done by practice staff = 2; usually done by myself = 3.

Table 40. FD/GPs' involvement in provision of medical procedures, by urbanization

Procedure usually provided by FD/GP or practice staff	Urban (N=274)			Rural (N=128)			Total (N=402)		
	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N	% FD*	% GP*	Valid N
Wedge resection of ingrown toenail	8.7 (91.3)	9.1 (90.9)	241 / 33	15.8 (84.2)	7.1 (92.9)	114 / 14	11.0 (89.0)	8.5 (91.5)	355 / 47
Removal of sebaceous cyst from hairy scalp	7.9 (92.1)	12.1 (87.9)	241 / 33	6.1 (93.9)	7.1 (92.9)	114 / 14	7.3 (92.7)	10.6 (89.4)	355 / 47
Wound suturing	18.3 (81.7)	24.2 (75.8)	241 / 33	28.1 (71.9)	42.9 (75.1)	114 / 14	21.4 (78.6)	29.8 (70.2)	355 / 47
Excision of warts	4.1 (95.9)	- (100)	241 / 33	2.6 (97.4)	- (100)	114 / 14	3.7 (96.3)	- (100)	355 / 47
IUD insertion	2.9 (97.1)	- (100)	241 / 33	5.3 (94.7)	7.1 (92.9)	114 / 14	3.7 (96.3)	2.1 (97.9)	355 / 47
Removal of rusty spot from cornea	10.0 (90.0)	3.0 (97.0)	241 / 33	16.7 (83.3)	14.3 (85.7)	114 / 14	12.1 (87.9)	6.4 (93.6)	355 / 47
Fundoscopy	7.1 (92.9)	3.0 (97.0)	241 / 33	7.9 (92.1)	14.3 (85.7)	114 / 14	7.3 (92.7)	6.4 (93.6)	355 / 47
Joint injection	16.2 (83.8)	9.1 (90.9)	241 / 33	20.2 (79.8)	14.3 (85.7)	114 / 14	17.5 (82.5)	10.6 (89.4)	355 / 47
Maxillary (sinus) puncture	5.8 (94.2)	- (100)	241 / 33	3.5 (96.5)	7.1 (92.9)	114 / 14	5.1 (94.9)	2.1 (97.9)	355 / 47
Myringotomy of eardrum (paracentesis)	2.5 (97.5)	- (100)	241 / 33	2.6 (97.4)	- (100)	114 / 14	2.5 (97.5)	- (100)	355 / 47
Applying plaster cast	6.6 (93.4)	9.1 (90.9)	241 / 33	7.9 (92.1)	21.4 (78.6)	114 / 14	7.0 (93.0)	12.8 (87.2)	355 / 47
Strapping an ankle	28.2 (71.8)	33.3 (66.7)	241 / 33	35.1 (64.9)	64.3 (35.7)	114 / 14	30.4 (69.6)	42.6 (57.4)	355 / 47
Cryotherapy (warts)	4.1 (95.9)	- (100)	241 / 33	8.8 (91.2)	7.1 (92.9)	114 / 14	5.6 (94.4)	2.1 (97.9)	355 / 47
Setting up intravenous infusion	59.3 (40.7)	60.6 (39.4)	241 / 33	73.7 (26.3)	92.9 (7.1)	114 / 14	63.9 (36.1)	70.2 (29.8)	355 / 47
Immunizations for flu or tetanus	85.9 (14.1)	90.9 (9.1)	241 / 33	93.0 (7.0)	92.9 (7.1)	114 / 14	88.2 (11.8)	91.5 (8.5)	355 / 47
Allergy vaccinations	59.8 (40.2)	69.7 (30.3)	241 / 33	55.3 (44.7)	57.1 (42.9)	114 / 14	58.3 (41.7)	66.0 (34.0)	355 / 47
TOTAL SCORE Medical procedures /prevention* (range 1-3)	**1.31**	**1.30**		**1.38**	**1.41**		**1.33**	**1.33**	

* For the calculation of the score, answers have been weighted as follows: usually done by medical specialist = 1; usually done by practice staff = 2; usually done by myself = 3.
** Score not calculated because very low number of observations.

ANNEX 2. GLOSSARY OF PRIMARY CARE TERMS

Accessibility: the patient's ability to receive care where and when it is needed, given possible physical, financial or psychological barriers (*11*).

Comprehensiveness: the extent to which services provided comprise curative, rehabilitative and supportive care, as well as health promotion and disease prevention (*17*, *20*).

Confidentiality: the right to determine who has access to one's personal health information (*1*).

Continuity: the ability of relevant services to offer interventions that either are coherent over the short term – both within and among teams (cross-sectional continuity) – or are an uninterrupted series of contacts over the long term (longitudinal continuity) (*11*).

Coordination: a service characteristic resulting in coherent treatment plans for individual patients. Each plan should have clear goals and necessary and effective interventions, no more and no less. Cross-sectional coordination means the coordination of information and services within an episode of care. Longitudinal coordination means the inter-linkages among staff members and agencies over a longer period of treatment (*11*).

Financing: the function concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in a health system (*9*).

Family medicine teams: the core team, usually consisting of the general practitioner and a nurse, but possibly consisting of a multidisciplinary team of up to 30 professionals, including community nurses, midwifes, medical attendants, dentists, physiotherapists, social workers, psychiatrists, speech therapists, dieticians, pharmacists, administrative staff and managers, etc. (*21*). In 2003, WHO proposed that a primary care team is a group of "fellow professionals with complementary contributions to make in patient care (…) part of a broader social trend away from deference and hierarchy and towards mutual respect and shared responsibility and cooperation" (*22*). By definition, family medicine teams are patient-centred and therefore their composition and organizational model must change over time; it is a flexible construct.

General practice: General practice is a term now often used loosely to cover the general practitioner and other personnel as well, and is therefore synonymous with primary care and FM. Originally, it was meant to describe the concept and model around the most significant single player in primary care, the GP or primary care physician, while FM originally encompassed more the notion of a team approach. Whenever the notion of solo practitioner (GP) versus team-based approach (FM) is relevant, the distinction should be made. According to Atun, the specificity of the general practitioner is that he/she is "the only clinician who operates in the nine levels of care: prevention, pre-symptomatic detection of disease, early diagnosis, diagnosis of established disease, management

of disease, management of disease complications, rehabilitation, palliative care and counselling" (*23*).

Primary health care: This term should be used when it is intended to refer to the broad concept elaborated in the Declaration of Alma Ata (1978) with its principles of equity, participation, intersectoral action and appropriate technology and its central place in the health system (*24*).

Primary care: is more than just the level of care or the gatekeeping, it is a key process in the health system. It is the first contact, accessible, continued, comprehensive and coordinated care: first contact care is accessible at the time of need; ongoing care focuses on the long-term health of a person, rather the short duration of the disease; comprehensive care is a range of services appropriate to the common problems in the respective population and coordination is the role by which primary care acts to coordinate other specialists that the patient may need (*23*). Primary care is a subset of primary health care.

Performance: (or composite goal performance) is defined as a relative concept: the extent to which the health system involves relating goal attainment to what could be achieved in the given context of the country (*1*).

Resource generation: the provision of essential inputs to the health system, including human capital, physical capital and consumables (*1*).

Responsiveness: a measure of how the system performs relative to non-health aspects, meeting or not meeting a population's expectations of how it should be treated by providers of prevention, care or non-personal services (not a measure of how the system responds to health needs, which shows up in health outcomes). Enhancing responsiveness to the expectations of the population, includes: respect for people (including dignity, confidentiality [of information] and autonomy of individuals and families to decide about their own health); and client orientation (including prompt attention, access to social support networks during care, providing quality of basic amenities and choice of provider) (*1*).

Stewardship: a function of a government responsible for the welfare of the population, and concerned with the trust and legitimacy with which its activities are viewed by the populace. It includes the overseeing and guiding the working and the development of the nation's health actions on the government's behalf. The components of stewardship are: Health policy formulation (defining the vision and direction for the health system), regulation (setting fair rules of the game with a level playing field) and intelligence (assessing performance and sharing information) (*1*,*8*).

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SUMMARY

Although the strengthening of primary care services is a priority of health reforms in many countries in central, eastern and western Europe, backgrounds and reasons for reforms are not similar. In western Europe emphasis on primary care is expected to be an answer to questions of rising costs and changing demand as a result of demographic and epidemiological trends. Central and eastern European countries, as well as those of the former Union of Soviet Socialist Republics, are struggling to fundamentally improve the performance of their entire health systems. Primary care is now being reorganized in many countries to bring adequate and responsive health services closer to the population.

In many countries in transition health reforms are part of profound and comprehensive changes of essential societal functions and values. Reforms are not always based on evidence, and progress is often driven by political arguments or the interests of particular professional groups rather than on the basis of sound evaluations. However, policy makers and managers now increasingly demand evidence about the progress of reforms and responsiveness of services.

This report evaluates primary care developments in Romania based on a methodology that characterizes a good primary care system as comprehensive, accessible, coordinated, integrated and ensuring continuity. The methodology recognizes that in order to improve the overall health system, all the functions outlined in the WHO 2000 Health Systems Framework need to be taken equally into consideration: financing, service delivery, human and other resources such as appropriate facilities, equipment and drugs and the presence of all necessary legal frameworks and regulations and effective leadership. It thus offers a structured overview of the strengths and weaknesses of a country's organization of primary care services, including the voice of the professionals and patients concerned, to interested policy-makers and stakeholders.

WHOLIS number: xxxx . Original: English

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