World Health Organization
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EVALUATION OF STRUCTURE AND PROVISION OF PRIMARY CARE IN UKRAINE

A survey-based project in the regions of Kiev and Vinnitsa

Primary care in the WHO European Region

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ABSTRACT

Health reforms are part of profound and comprehensive changes of essential societal functions and values in many countries in transition. Reforms of (primary) care are not always based on evidence, and progress is often driven by political arguments or the interests of specific professional groups rather than on the basis of sound evaluations. However, policy-makers and managers are now increasingly demanding evidence about progress of reforms and the responsiveness of services. The implementation of the WHO Primary Care Evaluation Tool (PCET) aims to provide a structured approach towards this by drawing on health systems functions such as governance, financing and resource generation and the characteristics of a good primary care service delivery system: accessibility, comprehensiveness, coordination and continuity. This report gives an overview on the findings for Ukraine. The project was implemented in Ukraine in 2009 in the framework of the 2008/2009 Biennial Collaborative Agreement between the WHO Regional Office for Europe and the Ministry of Health of Ukraine, 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 Ukrainian Association of Family Medicine, and other stakeholders in the health system of Ukraine, including national policy experts, managers, medical educators, primary care physicians and their patients.

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ABBREVIATIONS

BCA	Biennial collaborative agreement (between the WHO Regional Office for Europe and Member States)
CIS	Commonwealth of Independent States
DT	District therapist
EU15	Countries belonging to the European Union before May 2004
GDP	Gross domestic product
GP	General practitioner
GP/FD	General practitioner/family doctor
HIV/Aids	Human immunodeficiency virus/Acquired immunodeficiency syndrome
NGO	Nongovernmental organization
NIVEL	Netherlands Institute for Health Services Research
PCET	Primary Care Evaluation Tool
SDR	Age-standardized death rate
STI	Sexually transmitted infection
TB	Tuberculosis
USSR	Union of Soviet Socialist Republics
WHO	World Health Organization
WONCA	World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians

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FOREWORD

Primary health care embodies the values and principles that WHO pursues in its worldwide effort to help countries strengthen their health systems efficiently and equitably. WHO renewed its commitment to global improvements in health, especially for the most disadvantaged populations, in the *World health report 2008*, which urges countries to act on evidence that access to primary care services forms the core of an efficient and appropriate health care system. The title of the report underscores the urgency of its message: *Primary health care – now more than ever*.[1]

Over the past 30 years, health in the 53 WHO Member States in the European Region has improved considerably overall, despite significant changes in patterns and trends in disease occurrence, demographic profiles and exposure to major risks and hazards in a rapidly evolving socioeconomic environment. In addition, the European 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, thereby changing the context for framing and implementing health policy.

This report evaluates developments in primary care in Ukraine, using a methodology that characterizes a good primary care system as one that:

- is comprehensive, accessible, coordinated and integrated;
- ensures continuity; and
- recognizes that all health system functions outlined in the WHO framework are considered equally in work to improve the overall health system.

This means that the financing arrangements, service delivery, human and other resources (such as appropriate facilities, equipment and drugs) and all necessary legal frameworks and regulations are in place, and that the system is steered by effective leadership.

The report 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. It focuses on structural performance and provides for a list of proxy indicators. It does not, however, examine the process or outcome of care itself, and consequently its quality, but instead signifies a first and very important step towards establishing a baseline on how primary care processes and outcomes can best be improved. We at the WHO Regional Office for Europe hope that the report will contribute to further primary care reform in Ukraine.

1 *World health report 2008*. Primary health care – now more than ever. Geneva, World Health Organization, 2008 (http://www.who.int/whr/2008/en/index.html, accessed 3 September 2010).

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EXECUTIVE SUMMARY

This report summarizes the results of the implementation in two regions (oblasts) of Ukraine in 2009 of the WHO Primary Care Evaluation Tool. The work was carried out within the framework of the 2008/2009 Biennial Collaborative Agreement (BCA) between the WHO Regional Office for Europe and the Ministry of Health of Ukraine, 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 – and other stakeholders in the health system of Ukraine, including national policy experts, institutes for medical education, regional authorities, primary care physicians and their patients.

Introduction

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 the health system to monitor the progress of their primary care-related policies and reforms and to set new priorities based on evidence-based information with the aim of further strengthening services at primary care level.

Methods

The underlying methodology for the design of the PCET derived from the WHO Health Systems Framework,[2] which indicates that the performance of a health system is determined by the way in which 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 to services, continuity of care, coordination of care and comprehensiveness. Furthermore, a number of key dimensions and subthemes were identified for each of the primary care functions and characteristics. These were then translated into one or more indicators or appropriate proxies.

To evaluate the complexity of primary care systems, information needs to be gathered on different levels, and from the demand side as well as the supply side. The PCET therefore consists of three instruments:

- a questionnaire concerning the status of primary care at national level;
- a questionnaire for primary care physicians, either district therapists (DTs) or general practitioners/family doctors (GPs/FDs); and
- a questionnaire for patients.

2 *The world health report 2000: health systems: improving performance*. Geneva, World Health Organization, 2000 (http://www.who.int/whr/2000/en/whr00_en.pdf, accessed 8 September 2008).

Together, the three questionnaires covered the primary care functions identified and the dimensions and items derived from the framework.

The questionnaires for GPs/FDs and patients were prestructured with precoded answers. The questionnaire for national level contained both prestructured and open-ended questions and sections for insertion of statistical data.

The questionnaires for GPs/FDs and patients were used in two regions of Ukraine in 2009: Kiev and Vinnitsa. Both questionnaires were respectively completed by DTs and retrained GPs/FDs[3] and their patients. The questionnaire for national level was completed by a panel of experts and stakeholders. Data were processed and analysed in October and November 2009.

The survey approach implies that results related to physicians and their patients rely on their self-reported behaviour or experiences. As this study covers only two regions of Ukraine, regions which are quite diverse in nature, results cannot be considered representative of the whole country. In many other parts of the country, notably in Lviv, Odessa, Dnipropetrovsk and the Transcarpathian area, the situation is different to that found in Kiev and Vinnitsa. Furthermore, reports of involvement of physicians in certain services to their patients do not imply any measure of quality or structured approach.

Results

National level

These results are based on information gathered by the national-level health system questionnaire and interviews with national policy experts.

Stewardship/governance

Although legislation in the early 1990s identified primary care as an important layer of the health care system, comprehensive legislation and regulation on general practice/family medicine only began to be developed in the 2000s. It was not until 2007 that a subdivision for primary care was established in the Ministry of Health, giving primary care a structural place in the organization of the ministry.

The pace of health system reform is slow as a result of difficult and lengthy decision-making processes. Approval for policies and programmes is consequently subject to serious delays.

Some of the more-active oblasts in the country have responded to this by anticipatating change and developing their own programmes, creating differences between oblasts in the provision of primary care services.

The provision of primary care is regulated by formal requirements on physicians who aim to work at primary level. There is also a 5-yearly mandatory recertification scheme in place which involves practical work-based and theoretical and practical test elements.

3 Many GPs/FDs were DTs before undergoing retraining.

Official workforce norms for GPs/FDs take into account the more comprehensive task package required of GPs/FDs compared to DTs, and the different workloads found in urban and rural practices. The reality, however, does not refelct the norms: both GPs/FDs and DTs are responsible for numbers of patients which exceed their task packages and severe shortages of GPs/FDs and primary care nurses were reported.

The full potential of primary care is not being fully realized in the absence of a referral/gatekeeping system at primary care level.
Patients' rights have been acknowledged legally, but mechanisms for their realization in practice have not yet been developed (a bill on patients' rights is awaiting approval by parliament). At present, patients usually lack opportunities to be able to choose either their primary facility or their physician.

Financing

Primary care expenditure in Ukraine is estimated to amount to 6%–10% of the total public health budget.

Salaries of physicians in Ukraine are low and, with the exception of GPs/FDs, all physicians in primary and secondary care are paid the same basic salary. The basic salary of GPs/FDs is 7% higher than that of other physicians. Seven per cent of a very low salary may not be sufficient incentive for GPs/FDs to make a difference compared to DTs.

Current salaries offer some differentiation on the basis of years of experience and the relative challenges of working conditions, but incentives related to performance are practically absent.

The state-guaranteed package of services is not free of charge to the whole population. Full coverage for free primary care services only exists for certain categories of the population

Human resources

Only 17% of physicians in Ukraine are working at primary care level. Of these, one third are physicians who have been retrained as GPs. Using the official norms for calculation, the current number of retrained GPs/FDs amounts to 22% of the number required to cover the whole population with general practice/family medicine-based primary care.

The Ukrainian Association of Family Medicine has a potentially important role in professional development. The current membership, however, must be considered as insufficient to fulfil the potential: only 2% of GPs/FDs in Ukraine are members of the association.

Medical education in general practice/family medicine is offered at all medical universities. The "production" of GPs/FDs, however, may not be sufficient to meet national needs in the foreseeable future. It is remarkable that general practice/family medicine has not been recognized as a scientific specialty in Ukraine, and that professorships in this acknowledged specialty are consequently absent. More hopefully, scientific research in the field of general practice/family medicine has now commenced at several medical universities.

Service provision

According to official statistics, the average patient visit rate in primary care is 4.0 vists per year. The official referral rate is 4.66%, while the hospital admission rate is 1.27% of patient contacts.

More detialed information on service provision are reported from the surveys of physicians and patients in primary care.

Primary care physicians and patients

These results are based on responses to the surveys held in the two regions.

Accessibility of care

The majority of patients in both regions reported that they could easily reach their policlinic or ambulatory by public transport. However, patients were negative about the accessibility of premises for people with disabilities and those using a wheelchair. One in three patients could reach their preferred primary care facilities and a hospital within 20 minutes. Patients in Kiev region reported longer travel times to all surveyed facilities compared to patients in Vinnitsa region, suggesting a better distribution of primary care services closer to where people are living in Vinnitsa region.

Primary care practices were in most cases staffed by GPs/FDs, DTs, a practice nurse, midwife, family nurse and a support worker. One third of the physicians also shared their practice with medical specialists.

Patients in Vinnitsa region had more positive experiences of opening hours and getting access to doctors than those in Kiev region. Patients in both regions experienced very limited access during out-of-office hours. Doctor visits in the evening were particularly rare. Despite this, patients were still moderately satisfied with current opening hours.

Practices in Kiev region were on average larger than those in Vinnitsa region. DTs responding to the survey were responsible for 2770 patients and GPs/FDs for 2106 patients. GPs/FDs and DTs overall spent on average 22 minutes per consultation. GPs/FDs made more home visits and had longer working hours than DTs, but had somewhat fewer consultations per day. GPs/FDs and DTs in Vinnitsa region had a higher workload than their colleagues in Kiev region.

Patients in Kiev region visited their doctor six times a year, and in Vinnitsa region four times a year.

Coordination of care

Coordination of care seemed to be reasonably well developed. More than three quarters of patients indicated they would visit their GP/FD or DT with a new health problem before seeking specialist care. The majority of GPs/FDs and DTs were working in shared practices with other primary care physicians (such as district paediatricians and gynaecologists) and physicians from secondary level. Collaboration within primary care and with secondary care was generally well developed.

Physicians had regular face-to-face meetings with other GPs/FDs or DTs, family nurses, midwives, gynaecologists, surgeons, neurologists, dermatologists, endocrinologists,

cardiologists, ear, nose and throat specialists and ophthalmologists. This occurred to a lesser extent with pharmacists, community nurses, secondary level paediatricians and internal medicine specialists.

In Kiev region, it was estimated that 6.3% of reported patient contacts ended up with a referral to a medical specialist; the comparable rate in Vinnitsa region was 6.1%. The average referral rate among GPs/FDs was higher than that of DTs (6.2% and 5.9% respectively). The highest number of referrals in both regions was reported to gynaecologists and the least to dermatologists and oncologists. Physicians in urban areas made more patient referrals to medical specialists (except to oncologists) than their colleagues in rural areas (6.6% and 6.3% respectively).

Continuity of care

Routinely keeping medical records of all patient contacts was part of daily practice for most physicians in both regions. More DTs than GPs/FDs reported keeping full clinical records routinely. Most physicians were able to easily generate a list of patients by diagnosis or health risk, and most physicians in both regions indicated that they used referral letters for patients referred on to specialists. Computers were rarely used by physicians in both regions, which points to an area for improvement in terms of efficiency and usability of information.

Most patients in both regions were assigned to their doctor. The conditions for a continuous doctor–patient relationship were good, as practice populations in both regions seemed to be relatively stable. Patients in Vinnitsa region were more positive about various professional and personal aspects of their doctor than patients in Kiev region. There were no real differences by urbanization.

Patients usually saw their own GP/FD orDT when visiting their centre. Just over half were certain that their physician knew their personal situation, but certainty that their physician was aware of their medical history was more widespread. Patients in both regions felt their physician took sufficient time to talk to them. They also appreciated their doctors' communication skills. Patients were negative, however, about the exchange of information between their own and other physicians.

Almost two thirds of patients in Kiev region found their doctor was more accessible for medical problems than for personal problems. The opposite was true in Vinnitsa region. The majority of patients felt better-able to cope with their health problem after a visit to their doctor. Almost all were satisfied with their doctors' willingness to visit them at home.

Patients were very critical about medical equipment. Only 17% in Kiev region and 34% in Vinnitsa region felt that the available equipment was sufficient.

Comprehensiveness of care

GPs/FDs in both regions were the doctors of first contact for patients with a range of health problems, but not for problems relating to reproductive health or relational or psychosocial problems. Rural physicians were more often the doctor of first contact than their colleagues in urban areas, and GPs/FDs had a more developed first-contact role than DTs.

GPs/FDs and DTs were equally involved in providing treatment for diseases occurring among their patients. This involvement was stronger among GPs/FDs in Vinnitsa region than those in Kiev region, and rural physicians appeared to be more involved in disease treatment than their urban colleagues. GPs/FDs and DTs (particularly in Kiev region) were marginally involved in a third group of tasks, the provision of prevention advice and medical–technical procedures. Again, rural physicians were more involved than their urban colleagues.

Most patients indicated that their doctor would pay attention to their eating habits, involvement in physical activity and alcohol and smoking behaviours. GPs/FDs were more involved in providing services to mothers and children than DTs and those in Vinnitsa region were more involved that GPs/FDs in Kiev region. Rural physicians, particularly GPs/FDs, were much more involved in mother and child health services than urban physicians.

A majority of physicians in both regions were involved in tuberculosis-related activities, but not so much in directly observed treatment. Involvement was lower in Vinnitsa region than in Kiev region. One quarter of physicians had no information about the number of tuberculosis patients in their patient population. GPs/FDs in rural areas had received training for aspects of tuberculosis care almost twice as often as primary care physicians in urban areas and had also received new information materials more frequently.

Connections with the community in terms of regular meetings with local authorities were fairly strong in both regions, but having regular meetings with social workers or having community representatives on the board of the practice or centre seemed to be fairly uncommon.

An overview of selected (proxy) indicators by primary care function for the Kiev and Vinnitsa regions is shown in Table 1.

Table 1: Overview of selected (proxy) indicators by primary care function for the Kiev and Vinnitsa regions in Ukraine

Functions	Selected dimensions/proxy indicators	Findings Physicians (N=283) Patients (N=2 115)
Stewardship/ governance	Department in Ministry of Health specifically dealing with primary care	Yes (since 2007)
	Percentage of physicians reporting that a patient complaint procedure was in place in their ambulatory/policlinic	64%
	Percentage of patients reporting a complaint mail box was available in their ambulatory/policlinic to submit a complaint	42%
Financing	Employment status of primary care physicians	>99% state employed
	Percentage of patients reporting copayments for drugs prescribed in primary care	85%
Resource generation	Percentage of active physicians in Ukraine working in primary care	17.1%

Functions	Selected dimensions/proxy indicators	Findings Physicians (N=283) Patients (N=2 115)
Resource generation	Percentage of physicians working in primary care who were (re-trained) GPs/FDs	34.9%
	Average age of GPs/FDs	47 years
	Average age of DTs	49 years
	Hours GPs/FDs spend on professional reading (per month) Hours DTs spend on professional reading (per month)	24 hours 33 hours
	Medical universities with a department of general practice/family medicine	17 (all)
	Average number of items of medical equipment available to physicians (from a list of 30 items)	GPs/FDs: 20 items DTs: 21 items
	Percentage of physicians reporting no or insufficient access to a laboratory	7%
	Percentage of physicians reporting no or insufficient access to X-ray facilities	10%
	Percentage of physicians with a computer in the centre/practice	GPs/FDs: 18% DTs: 22%
Service delivery		
Access to services	Percentage of patients living within 20 minutes travel from GP/FD or DT	42%
	Average number of registered patients per GP/FD	2 106
	Average number of registered patients per DT	2 711
	Average number of patient consultations per day per GP/FD	23
	Average number of patient consultations per day per DT	25
	Average number of home visits per week per GP/FD	24
	Average number of home visits per week per DT	14
	Average working hours of GP/FD per week	39
	Average working hours of DT per week	26
	Average length of patient consultations (minutes)	22
	Reported average contact rate (frequency) by patients per year	4.9 visits
	Percentage of primary care physicians offering evening opening at least once per week	37%
	Percentage of patients having a same-day consultation on demand	83%
Coordination	Indicative referral rate to specialist secondary services (percentage of all office and home care contacts)*	GPs/FDs: 6.2% DTs: 5.9%
	Indicative referral rate to specialist secondary services (percentage of all office and home care contacts)*	rural: 6.2% urban: 6.5%
	Percentage of primary care physicians sharing premises with other primary care physician(s)	32%

Functions	Selected dimensions/proxy indicators	Findings Physicians (N=283) Patients (N=2 115)
	Percentage of primary care physicians having regular meetings with family nurses	82%
	Percentage of primary care physicians having regular meetings with midwives	66%
	Percentage of primary care physicians having regular meetings with pharmacists	60%
Continuity	Percentage of primary care physicians reporting keeping medical records routinely	GPs/FDs: 79% DTs: 90%
	Percentage of patients being assigned to their GP/FD (not chosen)	67%
	Percentage of patients with their GP/FD for at least one year	92%
Comprehen-siveness	Percentage of physicians frequently using clinical guidelines	GPs/FDs: 71% DTs: 75
	Percentage of items of medical equipment reported to be available to physicians (from a list of 30 items)	GPs/FDs: 68% DTs: 70%
	Score for GPs'/FDs' role in first contact care for a selection of 18 health problems (range of score 1 (never)–4 (always))	2.37
	Score for DTs' role in first contact care for a selection of 18 health problems (range of score 1 (never)–4 (always))	2.01
	Score for GPs'/FDs' involvement in the treatment of a selection of 19 diseases (range of score 1 (never)–4 (always))	2.89
	Score for DTs' involvement in the treatment of a selection of 19 diseases (range of score 1 (never)–4 (always))	2.90
	Score for GPs'/FDs' involvement in the provision of a selection of 16 preventive and medical–technical procedures (range of score 1 (never)–4 (always))	1.49
	Score for DTs' or team members' involvement in the provision of a selection of 16 preventive and medical–technical procedures (range of score 1 (never)–4 (always))	1.37
	Coverage of public health activities (based on 8 items = 100%) by GPs/FDs on a routine basis	65%
	Coverage of public health activities (based on 8 items = 100%) by DTs on a routine basis	67%
	Percentage of physicians involved in cervical cancer screening programme	GPs/FDs: 45% DTs: 48%
	Percentage of physicians providing family planning/contraception services	GPs/FDs: 49% DTs: 30%
	Percentage of GPs/FDs providing routine antenatal care	70%
	Percentage of DTs providing routine antenatal care	53%
	Percentage of GPs/FDs trained specifically for counselling tuberculosis patients	54%
	Percentage of DTs trained specifically for counselling tuberculosis patients	65%
	Percentage of physicians involved in tuberculosis follow-up treatment	GPs/FDs: 68% DTs: 43%
	Percentage of primary care physicians having regular meetings with local authorities	73%

*Calculated on the basis of reported contacts and referrals; self referrals not included

Recommended policy action[4]

Governance and policy

Continuity of health sector reform

Leadership at central and oblast level should be developed and stimulated to promote the implementation of current regulation and policy and encourage discussion and evidence-informed decision-making about further steps. Primary care and general practice/family medicine need informed and motivated people in positions of power and influence who understand the role of primary care and general practice/family medicine in the health system context.

Progress has been made in developing comprehensive legislation for primary care since the turn of the century, but the pace of reform has been slow as a result of difficult and lengthy decision-making processes. The position of power and influence of advocates of primary care and general practice/family medicine is currently not sufficient to accelerate reform.

Status of primary care and general practice/family medicine

A multifaceted policy to tackle the problem of low prestige of primary care and general practice/family medicine should be developed.

Many problems in the primary care sector, including recruitment and retention of staff and poor motivation, relate to low prestige of medical workers in primary care. Among potential solutions to promoting prestige are improvement in working conditions, provision of information and publicity to the public and strengthening of the position of general practice/family medicine in the academic world.

Gatekeeping by GPs/FDs

A gatekeeping role for GPs/FDs should gradually be introduced.

Formalizing the central role of GPs/FDs will promote better use of the potential primary care offers. The gatekeeping role should be introduced gradually, taking into account the expanding professional role of GPs/FDs and acceptability to the population. Incentives for citizens to voluntarily choose a gatekeeping arrangement can be created.

The general practice/family medicine model in urban areas

A limited number of pilots should be initiated in each oblast, with policlinics offering general practice/family medicine-based primary care to their populations.

The implementation of general practice/family medicine-based primary care is easier in rural ambulatories than in urban policlinics. The higher supply of, and better accessibility to, narrow specialties in urban settings has led to a perception of family medicine as being "rural medicine". In addition, the implementation of general practice/family medicine-based primary care is organizationally easier in rural ambulatories than in urban policlinics. As a result, policlinics currently lag in offering primary care services. The proposed pilots, which should be coordinated at national

4 Recommendations are based on information gathered among experts at national level, observations made during site visits, and responses to the surveys among physicians and patients held in the regions of Kiev and Vinnitsa.

level, offer opportunities for experience to be gained and exchanged, resulting in an urban model of general practice/family medicine-based primary care that can be rolled out across the country.

New tasks for nurses in primary care

Nurses' duties should be moved away from administrative tasks, such as completing paperwork, towards nursing tasks, such as the provision of disease-prevention advice and health information and routine monitoring of patients with chronic conditions.

The vast nursing resource and potential in primary care is poorly used. Many administrative tasks currently executed by nurses can be delegated to non-medical workers. Critical examination of the current paperwork may also reduce this burden. The increased availability of nurses for direct patient care may compensate for the negative effects of GP/FD shortages.

The position of patients

The rights, duties, needs and wishes of patients should be included in all debates and decisions on health care reform.

It appears that patients are an increasingly decisive factor in the success of health care reform. All parties in the health care system should recognize this and reflect it in relevant regulations. "Regulated free choice" of health care provider will be a logical consequence.

Education and professional development

Formal recognition of general practice/family medicine

The initial steps recently made in developing procedures towards full academic recognition of general practice/family medicine and the establishment of professors in general practice/family medicine should be accelerated.

Despite first steps being made, academic recognition of general practice/family medicine has not yet been realized in Ukraine. It is inconsistent to define GPs/FDs as being the core actors in the future national primary care system and not recognize general practice/family medicine as a scientific discipline. Ukraine can learn from many countries in Europe where this has already been enacted.

GP/FD training capacity and emerging plan to tackle undersupply

Measures that will result in intensified recruitment, training and education of new GPs/FDs should be put in place, and an emergency plan to reduce the extremely high workloads that threaten patient care should be developed.

Even if fully utilized, current training capacity seems to be insufficient to produce the necessary number of GPs/FDs. Measures are needed to expand retraining and residency programmes. Current shortages result in very large practice populations compared to national norms. Intensified recruitment and expansion of medical education capacity will only have an effect in the medium and longer terms; in the short term, a temporary emergency plan should provide additional financial and human resources to relieve the most urgent situations.

Retraining and follow-up

The retraining course should be modernized by focusing on practical skills rather than being lecture-based, and post-course educational follow-up and feedback mechanisms for GPs/FDs should be developed. Continuing medical education should be integrated within this approach.

Completing the retraining course is only a starting point for GPs/FDs; it needs to be followed-up to allow them to grow into their new role. The current continuing medical education scheme should be gradually transformed from a test-oriented "hurdle jump" into a more practice-based scheme that focuses on GPs'/FDs' and nurses' knowledge and skills needs. Education efforts should be complemented by supportive in-service supervision to increase its effectiveness.

Modern clinical guidelines

Clinical guidelines based on up-to-date evidence should be developed with the active involvement of GPs/FDs (via the Ukrainian Association of Family Medicine, for instance). The guidelines should link to continuing medical education programmes.

Current guidelines are coordinated by the Ministry of Health and are produced by medical specialists without the involvement of GPs/FDs. These guidelines are instructions rather than tools to support GPs/FDs in their clinical decision-making. The use of clinical guidelines is enhanced it they are integrated within programmes of continuing medical education.

Financing and incentives

Salary levels in primary care

The salaries of primary care workers (including GPs/FDs and nurses) should be gradually upgraded.

Responsibilities and financial reward in primary care are currently not balanced. This continues to be an obstacle to realizing health care reform goals.

Financial incentives in primary care

A salary or remuneration system that challenges workers to improve their performance should be developed.

Current salaries are not only low: they also fail to provide incentives for enhanced performance. Better performance should be rewarded. It is suggested that GPs/FDs who prefer to work independently be offered the opportunity to do so, under conditions specified in a contract.

Service delivery

Premises and medical equipment

An inventory of premises and equipment in primary care should be compiled with, where necessary, investment in new and refurbished medical equipment.

GPs/FDs in the survey reported they had, on average, 20 items of equipment available from a list of 30, with DTs reporting 21 items available. Ten per cent of the physician respondents reported having no or insufficient access to X-ray facilities. Around half of

the patients surveyed were dissatisfied with the premises and a large majority (74%) indicated that their policlinic or ambulatory had insufficient equipment.

Continuity of care

Keeping clinical records and using referral letters should be promoted as routine practice among GPs/FDs.

Routinely keeping clinical records and providing secondary-level physicians with information about referred patients are important in maintaining continuity in the care process. There is room for improvement among GPs/FDs on these issues. More DTs reported that they kept clinical records and provided information about referred patients than did GPs/FDs.

Computers/information systems

A primary care information system should be developed and a computerization programme should be rolled out across primary care.

Computers are rare in Ukrainian primary care: keeping medical records and gathering information therefore calls for laborious handwork.

Comprehensiveness – broadening the range of primary care services

The comprehensiveness of the profile of service delivery by GPs/FDs should be actively promoted.

In some respects, the profile of clinical tasks reportedly delivered by GPs/FDs was broader than the one for DTs. For instance, GPs/FDs saw a wider range of health problems at first contact than DTs. GPs/FDs were also more involved in reproductive health services and mother and child health services (including paediatric surveillance). However, if other services such as treatment of disease, medical–technical procedures and services to specific patient groups are taken into account, no difference with DTs could be observed. The average referral rate among GPs/FDs was not lower than that among DTs. More comprehensive service provision in primary care could be achieved through linked measures on education and training, financial incentives, improved working conditions and the provision of proper equipment.

Accessibility

A system of round-the-clock ("24/7") coverage with GP/FD services should be developed, and that accessibility of premises to people with disabilities and those using a wheelchair should be improved.

Patients in both regions had very limited access during out-of-office hours. Visits to the doctor in the evening were rarely possible. Patients in both regions were negative about the accessibility of premises for people with disabilities and those using a wheelchair.

I. EVALUATING PRIMARY CARE: BACKGROUND AND IMPLEMENTATION

The theoretical framework of the Primary Care Evaluation Tool

Why evaluate primary care?

Careful monitoring is required in any process of planned change, including large-scale and fundamental change, taking place in the health care systems of countries in transition. Although strengthening primary care services is a health reform priority in many countries in central, eastern and western Europe, the backgrounds to, and reasons for, the reforms differ.

In western Europe, primary care reform rends to focus on providing solutions to issues of rising costs and changing demand consequent to demographic and epidemiological changes. Central and eastern European countries, and the countries of the former Soviet Union, are struggling to fundamentally improve the performance and cost–effectiveness of their entire health systems. Primary care, which used to be poorly developed or non-existent in these countries, is now being developed to improve the cost–effectiveness of the overall system and to bring adequate and responsive health services closer to the population. In many of these countries, health care reforms have been, and continue to be, part of profound and comprehensive changes in essential societal functions and values (*1*).

Evaluations and measurements of performance play an increasing role in health care reforms. Stakeholders require information from these sources to guide decisions in steering the health system towards better outcomes (*2*). Reforms have not always been based on evidence, with progress often being 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 – particularly governments – are increasingly being held accountable for their activities and need to provide evidence on the progress of reforms.

In addition, demographic and epidemiological changes bring about the need for health systems to adapt to new population health demands. This requires evaluation of the responsiveness of health services from patients' perspectives. Such evaluations generate information about access and convenience of services, how patients are treated by health staff, how patients perceive information and communication about their conditions that can impact on their behaviour and well-being, and how their care is managed at primary care level and beyond.

Evaluations and performance assessments should be explained within the respective (country) context. Only then can performance information provide a direct input into policy-making and regulation. The role of governments, however, 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 (*2*).

A final requirement of evaluations and performance assessments is that they have a proper framework from which measures can be developed. Deriving indicators from an accepted framework promotes the relevance of (proxy) indicators and the coverage of areas identified in the framework. The following sections describe the framework used to develop the Primary Care Evaluation Tool (PCET).

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 provide 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 premature mortality and disability (*3*).

Health systems aim to achieve three fundamental objectives (*3,4*):

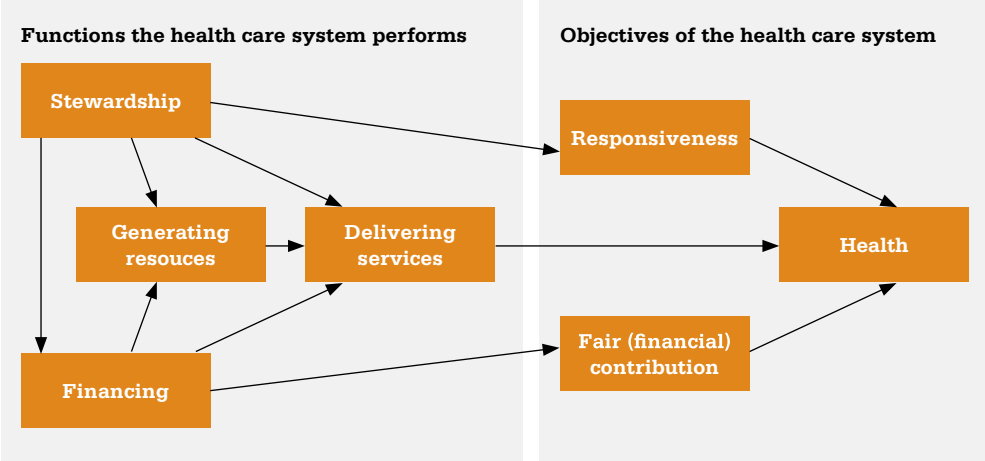
- improved health (including better population health status and reduced health inequalities);
- enhanced responsiveness to the expectations of the population, encompassing respect for the individual (including dignity, confidentiality and autonomy) and client orientation (including prompt attention, access to services, quality of basic amenities and choice of provider); and
- guaranteed financial fairness (including households paying a fair share of the national health bill and protection from financial risks resulting from health care).

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

The WHO Health System Performance Framework (Fig.1) indicates that performance is determined by the way in which the following four key functions are organized (3):

- stewardship
- generating resources
- financing
- service provision.

Fig. 1 WHO health system functions and objectives



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 or, for example, to primary care level only, with specific subcharacteristics for service provision function in primary care.

What is the meaning of the four system functions?

Stewardship

Stewardship is an overriding function. It is broader than regulation, in that it oversees all basic health system functions and has direct and indirect effects on the outcomes of a health system (*4*).

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:

1. setting, implementing and monitoring the rules for the health system
2. assuring a level playing field for purchasers, providers and patients
3. defining strategic directions for the health system as a whole.

Stewardship can be subdivided into six sub functions: overall system design, performance assessment, priority setting, regulation, intersectoral advocacy and consumer protection (3). In short, stewardship deals with governance, information dissemination, coordination and regulation of the health system at various levels.

Resource generation

Any level of a health system needs a balanced variety of resources to function properly, but these have to be further developed (and expanded) to sustain health services over time and across levels and geographic areas. The necessary resources encompass physical assets (equipment, facilities), consumables, human resources and knowledge/information.

It is crucial that the quantity and quality of human resources are adequately matched to the demand for services across the various levels of health care and equitably distributed across the country. The skills and knowledge of health providers need to be up to

date and compatible with developments in technology and evidence-based medicine to ensure the quality of care. Policy development on human/physical resource planning and a regulatory framework for assuring high-quality service provision and consumer protection falls under the stewardship function, but issues relating to workforce volume and distribution and professional development (training, continuing medical education, research, knowledge production) are usually measured under the "resource generation" function.

Financing

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 in health systems is defined by Murray & Frenk (*3*) as: "The process by which revenues are collected from primary and secondary sources, accumulated in fund pools and allocated to provider activities".

Three subfunctions 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). A number of mechanisms can be used to mobilize funds, varying by health systems context. They include out-of-pocket payments, voluntary insurance rated by income, voluntary insurance rated by risk, compulsory insurance, general taxes, earmarked taxes, donations from nongovernmental organizations (NGOs) and transfers from donor agencies. Funds can be "pooled" through various forms of health insurance to share and reduce health risks. And "purchasing" is the allocation of funds to cover the costs (staff, durables and running costs) of specific health service interventions by health providers (institutional or individual) (3). The way these subfunctions are organized and implemented has an impact on access to health services.

Service delivery

Service provision involves the mix of inputs necessary for the production process within a specific organizational setting which lead to the delivery of health interventions (3). It relates to preventive, curative and rehabilitative services delivered to individual patients and to services aimed at larger populations (such as health education and health 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.

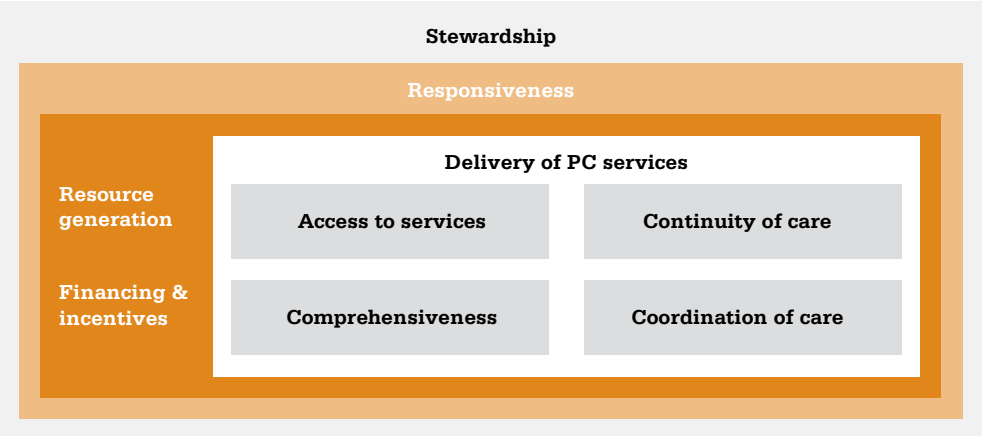
The Primary Care Evaluation Framework

The characteristics of primary care vary from country to country, and there are different definitions of what constitutes primary care. 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 (Fig. 2), from which the PCET has been developed, encompasses the four functions of a health care system (as described above) combined with the four key characteristics of primary care services that are part of service delivery.

Fig. 2 Primary Care Evaluation Framework



The four key characteristics of a "good" primary care system

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 patient's ability to receive care where and when it is needed" (*11*).

There are various physical, psychological, sociocultural and financial barriers that can restrict accessibility. Included in the PCET scheme are, for instance, geographic limitations (distance to, and distribution of, general practices = geographic access), factors related to the organization of primary care practice (office opening hours, distant consultations and timeliness = organizational access) and the costs incurred by patients (cost–sharing and copayments = financial access).

Continuity of care

An important characteristic of primary care is that health care interventions are geared to patients' health care needs over a longer period and cover successive episodes of care/treatment. 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. It is described as:

> 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 (*13*):

- informational continuity that relates to an organized body of medical and social history about each patient and which is accessible to any health care professional caring for the patient;

- longitudinal continuity, which points to a specific locus where a patient customarily receives health care from an organized team of providers in an accessible and familiar environment; and

- interpersonal continuity, which is defined as an ongoing personal relationship between the patient and the care provider and is characterized by personal trust and respect.

Reid et al. (*14*) add another level:

- management continuity, which is the provision of timely and complementary services within a shared management plan.

The PCET scheme, however, includes only informational, longitudinal and interpersonal continuity of care.

Coordination of care

As primary care is the entry point to health care and often serves a "gatekeeping" function to other levels of care, the coordination of services at primary care level is a particularly important determining element in the responsiveness of health services provision and the health system as a whole.

The potential for problems in coordination are particularly evident at the interface between primary and secondary care, 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 interlinking 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 between primary care providers (such as general practitioners (GPs), community nurses and physiotherapists) and between primary care and other levels of care in the context of consultation and referral systems.

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 to the fact that services comprise curative, rehabilitative and supportive care as well as health promotion and disease prevention (*15,17*). The comprehensiveness of services not only manifests in the specific range of services provided, but also in realted practice conditions, facilities and equipment and in the professional skills-levels of primary health service providers. The community orientation of primary care workers also plays a role. All these dimensions have been taken into consideration in the PCET scheme.

The Primary Care Evaluation Scheme

Taking the Primary Care Evaluation Framework (*4*) as its basis, the Primary Care Evaluation Scheme provides further details by focusing on specific measurable topics and items relating to essential features and national priorities for change in primary care and the facilitating conditions. The Primary Care Evaluation Scheme, which forms the basis of the PCET, includes a number of key dimensions that have been identified for every primary care system function. Each dimension has in turn been translated into one or more information items or proxy indicators for the dimension (see Table 2).

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

Function	Subfunction	Dimension	Selected Items/Proxies
Stewardship		Policy development	Primary care policy priorities
		Professional development	(Re-) accreditation system for primary care
			Quality assurance mechanisms for primary care
		Conditions for the care process	Laws and regulations
			Human resources 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 in primary care
			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	Primary care funding
		Health care expenditure	Expenditure on primary care
		Incentives for professionals	Entrepreneurship
			Mode of remuneration
		Financial access for patients	Cost–sharing/copayment for primary care
Delivery of Care			
	Access to services	Geographic access	Distance to primary care practice
			Distribution of primary care physicians
		Organizational access	List size

Function	Subfunction	Dimension	Selected Items/Proxies
Delivery of Care	**Access to services**		Primary care provider workload
			Primary care outside office hours
			Home visits in primary care
			Electronic access
			Planning of non-acute consultations
		Responsiveness	Timeliness of care
			Service aspects
			Clinics for specific patient groups
	Continuity	Informational continuity	Computerization of the practice
			Medical records
		Longitudinal continuity	Patient lists
			Patient habits with first-contact visits/ referrals
			Endurance of patient–provider relationship
		Interpersonal continuity	Patient–provider relationship
	Coordination	Cohesion within primary care	Primary care practice management
			Collaboration among general practitioners/family doctors
			Collaboration of primary care physician with other primary care workers
		Coordination with other care levels	Referral system/gatekeeping
			Shared care arrangements
	Comprehensiveness	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 must be gathered on different (administrative) levels and from supply and demand sides – that is, from health providers and patients. The PCET therefore consists of three separate questionnaires:

- a questionnaire concerning the situation of primary care policies and structures at national level, to be answered by experts;

- a questionnaire for primary care physicians/GPs; and

- a questionnaire for patients.

Together, the three questionnaires cover all identified primary care functions, their dimensions and information items as derived from the scheme. The questionnaires for GPs and patients are prestructured with precoded answers. The national-level questionnaire contains prestructured and open-ended questions and also lists of statistical data to be provided.

Overview of the development and pilot testing of the Primary Care Evaluation Tool

The development of the PCET started in February 2007 and was completed in May 2008, when the final instrument became available to be used by WHO in its health system support activities with Member States. The successive stages of development, from desk research via discussion of topics to pilot implementation and an international meeting to discuss experiences and results, are described below. The development process has been described in more detail elsewhere (*18,19*).

Literature review

As a first step, researchers at the Netherlands Institute for Health Services Research (NIVEL) conducted a directed literature review based on the WHO performance framework (*4*). The literature review aimed to gather information on possible ways of operationalizing key primary care system functions. Particular attention was paid to primary care indicators and existing (primary care) performance measurement and evaluation tools and questionnaires. This resulted in a preliminary listing of dimensions and items for the tool.

First exchange with experts of the WHO European Region

The outcomes of the literature study were discussed at an international meeting of experts held in March 2007. Major objectives of the meeting were to:

- discuss and reach consensus on key concepts and definitions used;

- discuss and validate the provisional set of dimensions, proxy indicators and information items; and

- improve the first version of the scheme (see Table 2) to develop questions for the questionnaires.

First steps were also made in pilot implementation of the provisional tool.

Drafting, validating and translating questionnaires

Draft versions of the questionnaires were developed on the basis of information and feedback from the expert meeting. Comments from experts on these versions were

then incorporated in new versions of the three questionnaires which were subsequently tailored to the two countries in which the tool would be piloted: Turkey and the Russian Federation. Terms were adapted for the national situations and some additional questions were included on topics related to national priorities on primary care at the request of health authorities in the two Member States. These final versions were translated into the respective country languages in a "check and double-check" procedure under which the text was first translated into the local language with inputs from an expert in primary care and then reverse-translated and compared with the original version.

The two pilots

The provisional tool was pilot tested in two provinces in Turkey and two districts in Moscow Region, Russian Federation. Under supervision from the WHO Regional Office for Europe and the respective ministries of health, local partners and the technical lead of NIVEL organized the details of the fieldwork, including sampling procedures, training of fieldworkers, logistics of data collection and data entry. Meetings with experts were organized in both countries to discuss and validate responses to the national-level questionnaires. All data were analysed, conclusions and policy recommendations formulated and a draft report produced, including a section on lessons learnt with the pilot implementation (*18,19*).

Copenhagen consultation meeting

The draft report was then discussed at a review meeting with international experts at the WHO Regional Office in Copenhagen on 14 and 15 April 2008. The review meeting resulted in a revision of the three questionnaires, with a focus on the following changes:

- questions being made more factual and avoiding asking for opinions;
- reordering the sequence of topics and questions;
- changing the national-level questionnaire into a questionnaire/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;
- reducing the size of the questionnaires for patients and physicians;
- making the terminology and wording throughout the questionnaires more consistent;
- using complementary sources of information such as available literature, articles, interviews with health care workers and experts and personal observations during site visits in addition to the results of the surveys;
- allowing implementing countries to add questions related to specific national priority areas (such as tuberculosis (TB) care and reproductive health services in the case of Belarus); and
- including a set of proxy indicators in the final report.

After revision of the tool, the PCET was made available to countries and an "implementation scheme" describing subsequent steps for the implementation of the PCET was produced.

The PCET has its limitations. The instrument relies on reported information at national level and on physicians' and patients' reports. Reports about "being involved" do not imply a measure of quality.

Overview of the implementation of the Primary Care Evaluation Tool in Ukraine

The biennial collaborative agreement context

PCET implementation was part of the biennial collaborative agreement (BCA) 2008/2009 between the Government of Ukraine and the WHO Regional Office.

Preparations for implementation were initially made during a visit of WHO representatives to Ukraine in December 2008, during which the PCET was introduced. A national working group consisting of representatives from the National Medical Academy of Postgraduate Education, the National Medical University and the Ukrainian Association of Family Medicine was then set up.

The official project partners of the WHO Regional Office and the Ministry of Health of the Republic of Ukraine were the NIVEL, in its capacity as WHO collaborating centre, and the Ukrainian Association of Family Medicine. Preparations for technical implementation effectively started in March 2009.

Country visits for information and planning

A NIVEL researcher paid two visits to Ukraine during the preparatory phase. The first visit, from 30 March to 2 April 2009, involved:

- visits to practices in the Kiev/Darnitsa district;
- discussions about practical approaches to the project, selection of regions for fieldwork and target populations for primary care physicians;
- introducing the project to stakeholders;
- discussion of the questionnaires, taking suggestions for change;
- discussion of issues in primary care with members of the national working group;
- introduction of the project to regional authorities in Kiev;
- a briefing at the Ministry of Health with the deputy minister; and
- coordination of activities with WHO country office.

A second visit was made from 18 to 21 May 2009 and dealt with:

- training of fieldworkers in both pilot regions;
- explanation of details of the fieldwork activities to all others involved;
- a meeting of stakeholders about the national-level questionnaire and its validation
- a visit to Vinnitsa region to provide explanations of the project and fieldwork activities and to visit practices; and
- a briefing at the Ministry of Health

The meetings and visits resulted in a number of preliminary observations that informed the section on primary care in the "health care system" section of Chapter 2 of this report.

Implementing the surveys in the pilot regions

After assessing the potential positive and negatives, it was decided to implement the surveys in two regions: Kiev and Vinnitsa.

Vinnitsa represented a region in which implementation of the primary care model based on the general practitioner/family doctor (GP/FD) has been completed, a process that was still underway in Kiev region. As this study covers only two regions of Ukraine, regions which are quite diverse in nature, results cannot be considered representative of the whole country. In many other parts of the country, notably in Lviv, Odessa, Dnipropetrovsk and the Transcarpathian area, the situation is different to that found in Kiev and Vinnitsa. Furthermore, reports of involvement of physicians in certain services to their patients do not imply any measure of quality or structured approach.

Target populations for the physicians' survey were GPs/FDs who had completed a retraining programme and district therapists (DTs) (physicians working in primary care who have not completed a retraining programme). Official lists of GPs/FDs and DTs were provided for the sampling frame, from which physicians from both populations were selected randomly. A minimum of 200 physician respondents were needed for the planned statistical analyses: it was therefore decided to approach around 300 physicians (of roughly equal proportions in each region).

All primary care physicians in Vinnitsa region had been retrained, so all physicians on the Vinnitsa list were GPs/FDs; of these, 139 were included. From Kiev region, three lists with physicians were provided and "cleaned up" (removal of double cases and physicians over 65 years). From the list of GPs/FDs, 71 were selected. Both of the other lists contained DTs and from these, 54 and 17 physicians were selected respectively.

In total, then:

- 71 (retrained) GPs/FDs and 71 DTs were included in Kiev region
- 139 GPs/FDs were included in Vinnitsa region
- the total number of physicians planned to be included in the study was 281 (210 GPs/FDs and 71 DTs).

Participants for the patients' survey were recruited from the practices of (around) 50% of the selected GPs/FDs and DTs in both regions. All of these practices were to be visited by a trained fieldworker who would ask attending patients to fill in a questionnaire (an accompanying adult of patients under the age of 15 would be asked). The fieldworker's target was to collect 15 participants.

According to this planned approach, the following numbers of patient respondents were anticipated:

- Kiev region: 15 patients from each of 35 GPs/FDs = 525 patients; 15 patients from each of 35 DTs = 525 patients
- Vinnitsa region: 15 patients from each of 70 GPs/FDs = 1050 patients
- total number of planned patient respondents = 2100.

As the results in Chapters 4 and 5 show, the actual response among physicians and patients was very good, with total numbers exceeding those anticipated. Two physicians more than had been anticipated were recruited along with an extra 15 patients. The fieldworkers in the patients' survey reached their target recruitment numbers easily and were able to exceed their capacity. The approach adopted among physicians, in which the next physician on the list was contacted in the event that one was not available, also allowed for some additional response. No data on non-responses were reported.

Despite this, the planned proportions of GPs/FDs and DTs in the physicians' survey could not be realized in the Kiev response. Instead, the response consisted of 72% GPs/FDs and 28% DTs. This means that the number of GPs/FDs in the study was higher and the number of DTs lower than was planned.

Role of fieldworkers

Fieldworkers had a crucial role in the data collection among patients. They recruited and informed the patients about the survey and distributed and collected the questionnaires among patients and physicians of the practices they visited. Distribution of questionnaires to the physicians working in practices not visited by fieldworkers was carried out by regional health authorities. These questionnaires were returned in sealed envelopes.

Fieldworkers were recruited by the local coordinator and were instructed on their task by the NIVEL researcher during his second visit. The training he offered addressed the following topics:

- explanation of the context and objectives of the survey
- basic principles and structure of the tool and the type of questions used
- specific questionnaires topics
- how to approach and assist respondents
- how to establish a good rapport by clear explanation and stressing confidentiality

- 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.

Information-gathering at national level
A team of 14 experts from the following institutions contributed to completing the questionnaire/checklist on the national primary care situation:

- Ministry of Health (Healthcare Reorganization Commission; Department of Economic Management of Insurance; Sector of Family Medicine Development; Department of Medical Care Development)
- International Centre for Information Technologies
- National Medical Academy of Postgraduate Education
- Dnepropetrovsk State Medical Academy
- Ukrainian Institute for Strategic Research
- National Medical Academy
- Ukraine Association of Family Medicine
- Kiev regional authorities
- Poltava regional authorities
- Cherkassy regional authorities.

Their responses and statistical data were subsequently discussed in a validation meeting held in Kiev on 19 May 2009. The meeting was led by a NIVEL researcher and aimed to review the responses and add details where necessary. The resulting information forms the basis for the description of the primary care national situation in Chapter 3.

Data processing, analysis and reporting
Data entry was carried out under the auspices of the Ukraine Association of Family Medicine in Kiev. A data-entry programme was designed by NIVEL using SPSS Data Entry Station version 3.0.3. Raw data files were sent to the NIVEL research team for processing and analysis. A draft report with results and preliminary recommendations was discussed at a meeting with Ukrainian and WHO experts in Kiev on 1 December 2009. The draft report was revised on the basis of suggestions for change and requests for additional information made at this meeting and comments made at peer review.

Details on the application of the PCET in Ukraine are summarized in Table 3.

Table 3. Key data on the application of the PCET in Ukraine

Elements of the Implementation	Explanation
Target groups	• Primary care physicians (DTs and GPs/FDs) • Patients (visiting primary care facilities) • Health care experts (national)
Locations	• Kiev region • Vinnitsa region
Type of data collection	• Primary care physicians: survey using prestructured questionnaires (disseminated by fieldworkers and by managers) • Patients: survey using prestructured questionnaires (personally handed over by fieldworkers) • Health care experts: mixed approach; questionnaire and meeting for validation and feedback
Method of recruitment/ inclusion	• Primary care physicians: GPs/FDs – random samples in two regions; DTs – random sample in one region • Patients: the first 15 patients attending the practice of ≈50% of the included physicians • Health care experts: identified and recruited by local partner
Planned sample sizes	• Primary care physicians: 281 (210 GPs/FDs + 71 DTs), as follows: » Kiev region: all 71 GPs/FDs + 71/223 DTs[5] » Vinnitsa region: 139/349 GPs/FDs • Patients: 2100 (with ≈50% of sampled physicians, 15 patients each), as follows: » Kiev region: 35 GPs/FDs x 15 = 525 patients 35 DTs x 15 = 525 patients » Vinnitsa region: 70 GPs/FDs x 15 = 1050 • 14 health care experts: selected on the basis of expertise
Response	• Physicians: 283 (GPs/FDs – 241; DTs – 42) • Patients: 2 115
Instructions	• Local coordinator: methodology of sampling and recruitment; identification of study populations; lists of GPs/FDs and DTs; logistics of surveys • Regional health authorities: aim and approach of the study • Fieldworkers: explanation of questions; how to approach and assist respondents; quality aspects • Respondents: introduction/instruction on the questionnaires; verbal introduction and support to patients by fieldworkers
Coordination of fieldwork	• Local coordinator: overall responsibility • Fieldworkers: information on respondents; correct administration of data collection in their facilities • NIVEL: general supervision during and after field visit
Data entry	Under the auspices of the Ukrainian Association of Family Medicine (Kiev)
Analysis and reporting	At NIVEL (Utrecht, Netherlands)

5 71/223 GPs means: 71 GPs randomly selected from a total population of 223.

2. INTRODUCTION TO UKRAINE

The country (*5*)

Ukraine is the second largest country in Europe, situated in the south-east between the neighbouring countries of the Russian Federation, Belarus, the Republic of Moldova, Romania, Hungary, Slovakia and Poland. Except for the Crimean Peninsula, which is subtropical, the climate is moderate continental. Its landscape includes the Carpathian Mountains in the west and extensive fertile plains in the centre. In the south, the country is bordered by the Black Sea and Azov Sea (Fig. 3).

Fig. 3 Ukraine

Source: http://en.wikipedia.org/wiki/File:Ukraine-CIA_WFB_Map.png

Ukraine experienced a short period of independence following the collapse of czarist Russia in 1917 before becoming became part of the Union of Soviet Socialist Republics (USSR) in 1922. After Russia, the Ukrainian Soviet Socialist Republic was the most important economic component of the USSR. Its fertile black soil generated more than a quarter of Soviet agricultural output and its diversified heavy industry, mainly situated in the eastern part of the country, supplied major equipment and raw materials to other regions of the USSR.

The country achieved independence in August 1991 after the USSR dissolved. This was the start of a difficult transition period towards a democratic society and a market economy. Ukraine experienced years of economic decline which came to an end after the turn of the 21st century, when the economic situation gradually improved.

Compared to other former Soviet countries, transition has been relatively slow in Ukraine. This has been ascribed to a lack of institutional capacity for policy-making in government during those years, with the reform process heavily reliant on foreign donors. The political will to change was not sufficiently translated into concrete action. Despite foreign technical assistance, Ukraine had difficulties in taking its own steps towards reform and building its own institutional capacity.

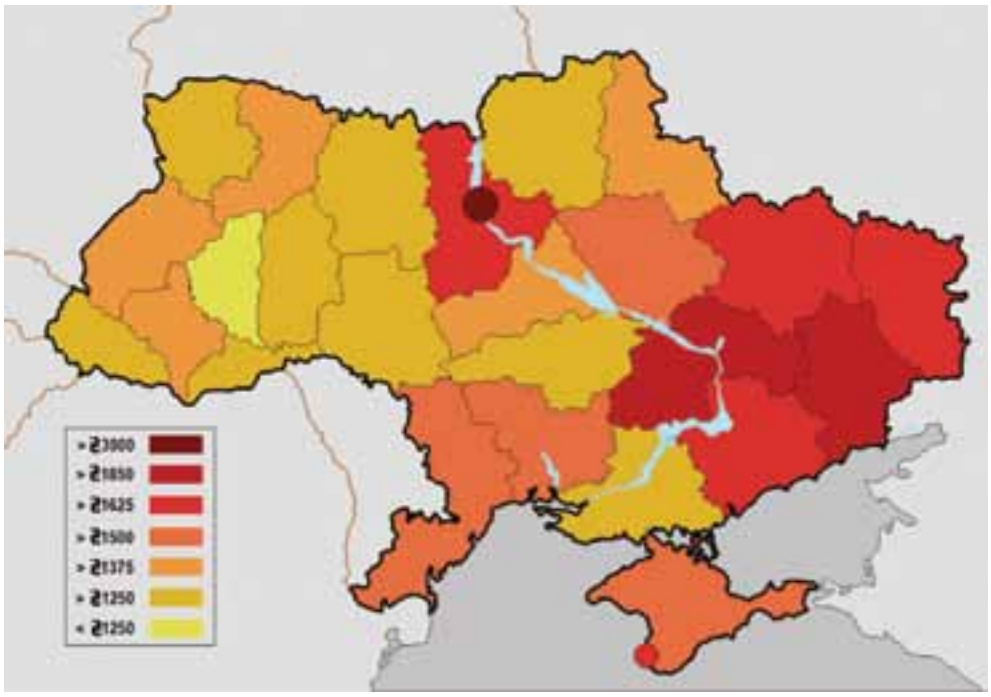
Administratively, the country is divided into 24 oblasts [regions] and two municipalities with oblast status (Kiev and Sebastopol). The Crimea has the status of an autonomous republic. The oblasts are further subdivided into 490 rayons [districts]. Executive power

in the oblasts, both cities and rayons, is in the hands of regional and district authorities, the heads of which are appointed by the central government.

Ukraine is now classified as a middle-income country. It has rich natural resources of coal, iron ore, manganese and nickel, but oil and natural gas need to be imported from the country's major energy supplier, the Russian Federation. This dependence is a potential confounder of the relationship between the countries. Until the outbreak of the global economic crisis, the income situation of the population had considerably improved, but the gross domestic product (GDP) dropped by 20% between spring 2008 and spring 2009.

Although sharp regional contrasts are absent, there are differences between the eastern and western parts of the country. As Fig. 4 shows, salaries in the more industrialized eastern regions are generally higher than in the western regions. Contrasting political preferences can also be identified. The population in the western oblasts opt for intensified cooperation with the European Union, while those in the east prefer to maintain the traditional orientation towards the former Soviet countries, in particular the relationship with the Russian Federation. Political (and cultural) differences between east and west find their roots in the different history of both parts of the country.

Fig. 4 Ukrainian regions by monthly salary (2008)



Source: http://en.wikipedia.org/wiki/File:Ukrainian_salary_map.png

Population and health (*6*)

Table 4 summarizes key indicators for Ukraine compared to averages for Belarus, the Russian Federation and the 15 countries belonging to the European Union before May 2004 (EU15).

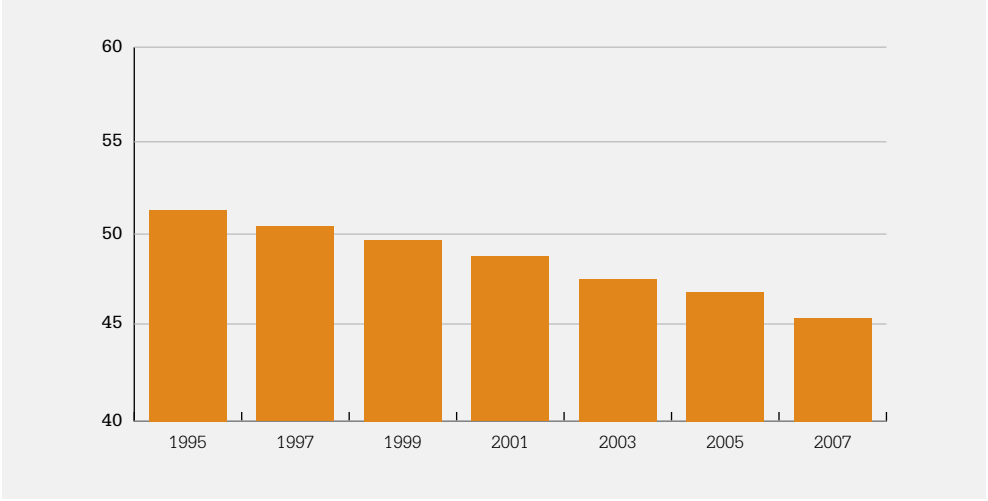
Table 4. Selected demographic, health and lifestyle indicators

Indicator	Ukraine	Belarus	Russian Federation	EU15
Population 0–14 years (%)	14.3	14.8	14.8	16.0
Population 65+ years (%)	16.3	14.6	14.0	17.6
Population density (per km2)	77.2	46.9	n.a.	n.a.
Population growth rate 2005–2007 (%)	–3.02	–1.33	n.a.	n.a.
Live birth rate (per 1 000 population)	9.9	10.7	10.4	10.7
Total fertility rate (children per woman)	1.31	1.37	n.a.	1.58
Life expectancy at birth (years)	Male 62.3 Female 73.8	Male 64.6 Female 76.3	Male 60.5 Female 73.3	Male 77.4 Female 83.0
Death rate (per 1 000 population)	16.3	13.7	15.3	9.3
Maternal deaths (per 100 000 live births)	15.2	6.7	23.8	5.4
Estimated infant mortality (2004; deaths per 1 000 live births)*	14	8	13	4.2
Death from diseases of circulatory system (per 100 000 population, age-standardized death rate (SDR)	802	591	782	196
Death from external-cause injury and poisoning (per 100 000 population, SDR)	130	139	188	34
Tuberculosis incidence – official (per 100 000) – estimated	 82.4 102	 55.2 61	 89.7 107	 9.2 13.1
HIV incidence (per 100 000 population)	1.20	1.49	0.80	0.83
Abortions (per 1 000 live births)	499	447	951	247 (EU total)
Regular smokers (%, 15+)	Male 62** Female 17**	Male 52.8 Female 8.7	n.a.	Poland male: 37 female: 23 Netherlands male: 32 female: 26.3

Source: WHO Health for All database: http://data.euro.who.int/hfadb (year: 2007 or 2006)
n.a. = not available
*World health report 2005. Make every mother and child count. Geneva, World Health Organization, 2006 (http://www.who.int/whr/2005/whr2005_en.pdf, accessed 15 September 2010).
**2005

Population indicators shown in Table 4 and Fig. 5 reflect what can be referred to as a demographic crisis in Ukraine. This is evident in the size of the population, which has been shrinking continuously from the end of the 1990s. The country's population declined by 1.4 million people between 2005 and 2007 (3%). The death rate is high and birth rate low (the current Ukrainian birth rate is fewer than 10 births per 1000 population, while the death rate is 16.3 deaths per 1000), as is the fertility rate. The proportion of elderly above the age of 65 years is larger than the proportion of children up to age 14, which points to an ageing population.

Fig. 5 Population of Ukraine 1995–2007 (in millions)



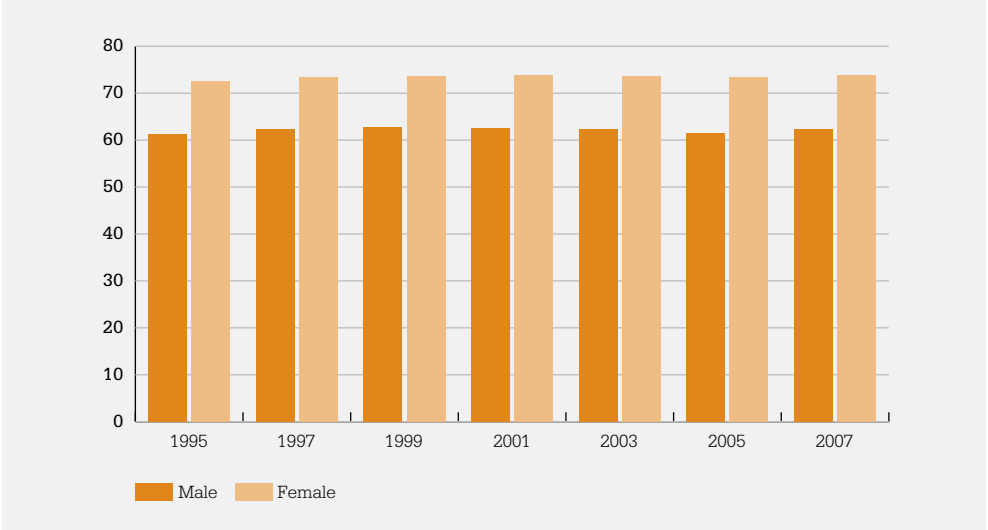
Source: WHO Health for All database: http://data.euro.who.int/hfadb

The demographic indicators for Ukraine are more negative than for its neighbour Belarus, which is also facing a shrinking population but at a slower pace. The demographic ageing process in Belarus (and in the Russian Federation) is less advanced, with the oldest and youngest population groups being more balanced than in Ukraine.

The total fertility rate compared to the EU15 countries, based on average data, reveals the most striking difference. Women in the EU15 countries have on average 1.58 children, compared to 1.31 among Ukrainian women.

The death rate in Ukraine is extremely high compared to EU15 countries, considerably higher than in Belarus and is also above the death rate in the Russian Federation. The life expectancy at birth sits between the figures for Belarus and the Russian Federation, but way below those in the EU15 countries. The difference in life expectancy of women in EU15 and Ukraine is 9 years; for men, it is 15 years (see Fig. 6).

Fig. 6 Life expectancy at birth in Ukraine: males and females, 1995–2006

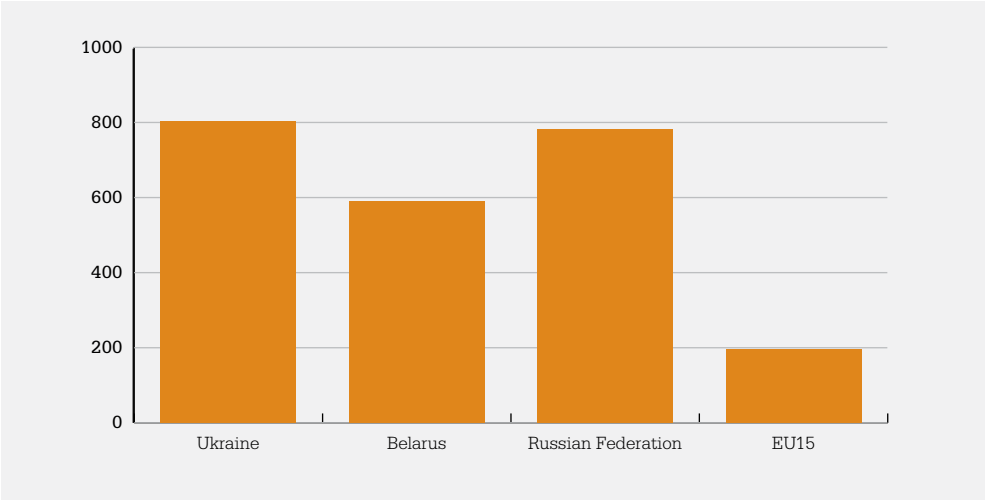


Source: WHO Health for All database: http://data.euro.who.int/hfadb

Maternal mortality is very high compared to EU15 and Belarus, but well below that in the Russian Federation. The 2004 estimated infant mortality, however, is higher than in any other country listed in Table 4: it is almost threefold the infant mortality in the EU15 and almost double the rate in Belarus.

Table 4 also shows that diseases of the circulatory system are major causes of death and are much more dominant than in the other countries (Fig. 7). There were 802 deaths per 100 000 population from diseases of the circulatory system in 2007, more than four times the number in the EU15 and also well above the number of 591 for Belarus. Mortality from circulatory diseases in the Russian Federation is slightly lower than in Ukraine at 782 per 100 000 population.

Fig. 7 Deaths from diseases of the circulatory system (age-standardized death rate per 100 000 population)



Source: WHO Health for All database: http://data.euro.who.int/hfadb

In Ukraine, external-cause injuries and poisonings contribute much more to mortality rates than in the EU15 countries, although this is not unusual among Commonwealth of Independent States (CIS) countries. Mortality from external causes in Ukraine is well below the level in the Russian Federation and about equal to that in Belarus. Ukraine has one of the fastest-growing HIV epidemics in the world. In 2006, 13 256 new HIV infections were detected, the largest-ever number (Fig. 8). HIV incidence in Ukraine (28.4 per 100 000 population) is somewhat higher than in the Russian Federation (27.5), where HIV is also epidemic.

Tuberculosis (TB) is another epidemic in Ukraine which is not under control (Fig. 8). The situation is worse than official statistics indicate due to underreporting. The TB incidence in Ukraine is comparable to the Russian Federation, but indicators for Belarus are better. TB incidence in Ukraine is about nine times higher that of the EU15 countries.

Fig. 8 New cases of HIV infection and TB infection in Ukraine, 1997–2007

Source: WHO Health for All database: http://data.euro.who.int/hfadb

The number of abortions is decreasing in Ukraine and is just above the level reported from Belarus. This is still much higher than the average in the EU15 countries, but much lower than the rate in the Russian Federation.

Smoking is a major lifestyle factor which has a negative influence on life expectancy through, for example, diseases of the circulatory system. Ukrainian men are heavy smokers compared to Belarus males: in Belarus, smoking among men is 10% below the percentage in Ukraine (which is 62%). In Poland and the Netherlands, around one third of the male population above age 15 are regular smokers. The proportion of female smokers in Ukraine is double that of Belarus, but well below the percentages in Poland and the Netherlands.

The health care system (*20, 22*)

The health care system in Ukraine is financed by the state and coordinated and managed at central level by the Ministry of Health and at local level by the 24 oblast health authorities, the Government of the Autonomous Republic of Crimea and the city health authorities of Kiev and Sebastopol. The Ministry of Health has executive power for implementation of state health policies and controls and manages state-owned health facilities. The regional and Crimean health authorities and city health authorities are responsible for the implementation of state health policies and for the management of health care facilities owned by the state or jointly owned by the state and lower administrative levels.

Lower administrative layers are the districts (or rayons) and the cities (except Kiev and Sebastopol). These are responsible for the provision of health care services to the population in their area. Lower administrative layers such as village councils can be identified within districts. Local councils control the health care facilities in their territory and can develop local development programmes and approve local budgets. The chief executive

officer in each municipality can appoint and dismiss heads of health institutions. Health care provided to elderly and disabled people living in nursing homes is the responsibility of the Ministry of Labour and Social Policy.

Health care continues to be financed through central and decentralized government budgets. The role of voluntary health insurance is insignificant, as few people can afford the premiums.

Public health is the responsibility of the state sanitary–epidemiological service (SanEpid). The focus of SanEpid is infection control and environmental protection (ensuring quality and safety of water, air, soil and food). This state service is hierarchically organized parallel to the other health care services and has branches throughout the country.

Inpatient care is provided by a network of oblast hospitals, city hospitals (both general and paediatric), district hospitals and specialist hospitals. Outpatient services at secondary level are provided by departments of territorial policlinics and policlinic departments of hospitals. As in policlinics, the primary and secondary levels of care are not strictly separated, with specialists providing care both to patients referred to them by DT and to those who come to visit them directly.

Although the health care sector situation, which is inherited from the times of the USSR, would justify fundamental reform, reforms so far have been limited. Features of the old Semashko model still prevail throughout the current system, including a dominant state role in financing and providing services and in providers of services having civil-servant status. The system is fragmented: for instance, the ministries of internal affairs, justice, defence, transport and the State Penitentiary Department all have their own medical institutions which exist parallel to the health care system operated under the responsibility of the Ministry of Health.

The private sector is insignificant and further expansion is inhibited by low living standards and the effect of inhibiting regulation. In the absence of a system of public contracting of medical services to private providers, private practice is limited to services paid out of pocket.

The legal framework for health care developed since independence is complex and fragmented, with overlapping and often ambiguous lines of accountability. Resources for health care are not sufficient to meet the stated goals of reform and the allocation of financial resources is related to capacity rather than performance. Another obstacle to continued and consistent reform is the political situation, with frequent changes of government and in the Ministry of Health.

Table 5 shows indicators of health care expenditure, resources and the utilization of services in Ukraine. Indicators from Belarus, the Russian Federation and averages from the EU15 countries have been included for comparison.

Table 5. Indicators of health care resources and utilization

Indicator	Ukraine	Belarus	Russian Federation	EU15
Total health expenditure as percentage of gross domestic product (GDP)	7.0*	6.6	5.2	9.6
Total health expenditure per capita (in Purchasing Power Parity, $)	488	515	561	2 282
Hospital beds (per 100 000 population) - all beds - acute beds only	 873 712	 1 123 –	 966 931	 544 375
Physicians (per 100 000 population)	308	484	431	338
GPs/FDs/DTs - number per 100 000 population - as percentage of all physicians	 32 10.4	 40 8.3	 27 6.3	 102 30.2
Nurses (per 100 000 population)	783	1 198	806	805
Pharmacists (per 100 000 population)	48	31	8	81
Dentists (per 100 000 population)	41	49	32	65
Average length of stay (days) - all hospitals - acute hospitals	 13.3 11.3	 11.4 –	 13.6 11.5	 9.4 6.5
Acute care hospital admissions (per 100 population)	20.8	–	23	17
Outpatient contacts per person (per year)	10.8	13.6	9.0	6.5**

Source: WHO Health for All database: http://data.euro.who.int/hfadb
Year: 2007 or 2006; EU15, 2006
*2005
**2001

The 7% proportion of GDP spent on health expenditure is higher in Ukraine than in Belarus and the Russian Federation, but lower than in the EU15 countries. However, the expenditure per capita is lower in Ukraine than in Belarus and the Russian Federation as the GDP is much lower in Ukraine. The level of health expenditure per capita in EU15 countries is more than four times that of the other three countries in Table 5.

Hospital bed supply in Ukraine is lower than in Belarus and the Russian Federation but much higher than in EU15. The number of physicians and nurses in Ukraine is relatively low in comparison with Belarus, the Russian Federation and the EU15 countries. There are more pharmacists in Ukraine than in Belarus and far more than in the Russian Federation; EU15, however, has a much higher pharmacist density than Ukraine. The dentist density in Ukraine is between that of Belarus and the Russian Federation but well below that of EU15.

Ukraine holds a midfield position between the Russian Federation and Belarus in relation to physicians working at primary care level, but the density of primary care physicians in the EU15 countries is more than three times higher than in Ukraine. Ten per cent of all physicians in Ukraine work in primary care, which is more than in Belarus and the Russian Federation; in the EU15, however, 30% of all physicians are based in primary care.

The length of hospital stay (both in all hospitals and in acute hospitals only) is equal to that in the Russian Federation and somewhat higher than in Belarus, but is much higher than in the countries of EU15. The hospital admission rate in Ukraine is between that of the Russian Federation, where it is higher, and the EU15 countries.

Primary care (*20*)

Traditionally, primary care services are provided by various providers from a range of facilities, including: community adult and children's policlinics, outpatient departments of hospitals and occupational clinics, outpatient maternity clinics and rural ambulatories and feldsher-midwife[6] posts. The provision of primary care from policlinics is organized territorially. The total services area of a polyclinic is divided into districts in which DTs and district paediatricians are responsible for the provision of care to adults and children respectively. The location of the patient's residence therefore determines his or her primary care physician. As was noted above, however, patients have access to specialists without a referral from their primary care physician.

The system with DTs and district paediatricians is gradually being replaced by a GP-based primary care system. Whether the old or new system is in place in a particular area largely depends on the attitudes and priorities of regional authorities. Regions governed by authorities that are more conservative are at a much earlier stage of reform than those in which primary care reform has become a priority. Steps have been taken to gradually introduce elements of family medicine in the more advanced regions. Rural feldsher-midwife posts, ambulatories and rural hospitals have been transformed into new structures called "family ambulatories". Core providers in family ambulatories are specially trained family physicians or general practitioners (GPs/FDs) who are providing, or are supposed to provide, a wider range of services than first-level physicians in the old system. Only modest changes have been achieved in cities.

At present, it is estimated that GPs/FDs provide about one quarter of primary care services. The new GP-based system is much more prevalent in rural areas, which have few easily accessible specialized services, than in urban areas. Even there, however, newly trained GPs/FDs do not always work according to the intended primary care model. All kinds of transitional variants exist. For instance, it is not yet common for GPs/FDs to serve all age groups: children sometimes continue to be treated by paediatricians.

The official job description of GPs/FDs covers a broad area, including general internal medicine, paediatrics, obstetrics/gynaecology, family planning and reproductive health, tuberculosis, HIV/AIDS, health education and sanitary–epidemiological services. For several reasons, however, there is a gap between the official job description and the real services provided by GPs/FDs. These reasons can be grouped as follows:

- tasks are poorly defined in the official job description and the required knowledge and skills are not well delineated, resulting in vague requirements for recertification;

- GPs/FDs usually receive a flat salary without any incentive to provide the range of services specified in the job description; and

6 Feldsher: a person with undergraduate health professional training, equivalent to physician assistant.

- patients have low expectations of GPs/FDs and are therefore not demanding these services; there is also no need for patients to demand the services because, in the absence of a GP/FDgatekeeping position, they can freely visit any medical specialist.

The volume and quality of services provided by GPs/FDs is hampered by structural underfunding. Consequently, the working conditions of GPs/FDs are not in line with the services they are supposed to provide to their patients, especially in rural areas.

Despite the existence of a state-guaranteed primary care benefit package, various user charges prevent its free utilization. Pharmaceuticals prescribed in outpatient care are usually subject to copayment (except for certain socially vulnerable groups); health facilities officially charge user fees for specific (listed) services; there are official voluntary contributions and donations; semi-official charges exist for consumables and procedures; and users are subject to informal fees to providers ("gratitude" payments).

3. PRIMARY CARE IN UKRAINE: NATIONAL SITUATION AND CONTEXT

Results from the national-level questionnaire

This chapter focuses on national policy and legislation related to primary care, financial arrangements, workforce and education issues, aspects of quality assurance and the role of patients in primary care in Ukraine. The chapter is primarily based on responses to the national-level questionnaire provided by a national team of experts, comments and additions made at the validation meeting held in Kiev on 19 May 2009 and supplementary information from other sources (20,21,23). Statistical information was contributed by the Ministry of Health. Results presented conform to the health systems functions and dimensions used in the PCET (see Table 2). The chapter also provides the context for the results of surveys among physicians and patients, described in Chapters 4 and 5.

Stewardship/governance aspects

Dimension: policy development

The "Basic Law on Health Care in Ukraine", passed shortly after independence was attained in 1992, identified primary care as an important community service that would be provided by GPs/FDs, and general practice/family medicine was placed on the official list of medical specialties in 1995. Yet it was not until the turn of the 21st century that comprehensive legislation and regulation on general practice/family medicine was developed, when the Ministry of Health launched plans for the gradual transition to primary care based on the principles of general practice/family medicine practice and subsequently developed regulations.

Laws and policy documents with major relevance to primary care development in Ukraine that were issued between 1992 and 2008 are listed below, in chronological order.

Chronology of primary care-relevant policy measures

1992

The Ukrainian Parliament passed the basic law on health care in Ukraine in 1992. This law, which was amended in 2006/2007, remains a fundamental underpinning for policy to this day. The law defines:

- citizens' rights and duties related to health and health care;
- the main principles of health care provision, including pharmaceutical care;
- approaches to the development and implementation of state policy on health and health care;
- fundamentals of health care management and funding;

- principles of state control and supervision of health care services;
- promotion of healthy and safe living conditions;
- health protection of mothers and children; and
- professional rights and duties of medical and pharmaceutical workers.

This act emphasized for the first time the role of primary care as part of the health care system. It would be implemented in the community on a territorial basis and provided by GPs/FDs and other medical practitioners.

In the same year, the Ministry of Health approved the "general practitioner" curricula and programme of specialization.

1995
The position of GP/FD was officially included in the list of acknowledged medical professions.

1996
A new constitution for Ukraine was approved by parliament. It states: "Each citizen has the right to health care, medical care and medical insurance", and goes on to say:

> State and municipal health facilities are held to provide medical care free of charge. The existing network of health care facilities may not be reduced. The State should support the development of health facilities of all forms of ownership.

2000
A number of important initiatives were launched in 2000:

- the "concept of health care system development in Ukraine", which defined a general practice/family medicine-based primary care system as a priority for health care reform;
- the Decision of the Cabinet of Ministers of Ukraine (N989) about complex measures for family medicine development, which specified various measures aimed at implementing family medicine in the health care system;
- Order of the Ministry of Health (N 214), which approved a step-by-step plan for family medicine implementation in primary health care;
- Order of the Ministry of Health (N33) about norms related to staff and activities in specific units of the health care system, which specified norms and standards for the workload of GPs/FDs;
- Order of the Ministry of Health (N73) about extraordinary attestation of the physicians who have become family physicians;
- Order of the Ministry of Health (N101), which made additions to previous orders concerning attestation of family physicians; and

- Order of the Ministry of Health (N372) about the introduction of family medicine ambulatories as an addition to the list of health care establishments.

2001
The Order of the Ministry of Health (N39) about additions to the list of nurse specialties was launched in 2001. Parliament passed a draft law on mandatory state social medical insurance, and the Order of the Ministry of Health (N72) approved the plan of gradual transition of the organization of primary care on the basis of family medicine. The government also published related documents on:

- GPs/FDs
- nurses in general practice
- departments of general practice/family medicine in policlinics and ambulatories
- qualification requirements for GPs/FDs
- qualification requirements for nurses in general practice/family medicine
- workload and service norms for GPs/FDs
- a table of equipment for general practice/family medicine departments
- a list of medicines for use in general practice/family medicine.

The specialty of "nurse in general practice/family medicine" was included in the official list of specialties of middle-level medical personnel, and the Order of the Ministry of Health (N303) about organization of work in ambulatories and departments of family medicine set out:

- a statement about ambulatory family medicine
- the content of the "physician's bag" of the family physician
- the content of the "nurse's bag" for general practice.

The Order of the Ministry of Health about monitoring the reorganization of the primary health care system on family medicine principles provided approval of the specification of required information about the development of services in general practice/ family medicine ambulatories.

2002
In 2002, the Government of Ukraine developed its first comprehensive health policy plan for 2002–2011. This intersectoral programme, approved by the Cabinet of Ministers, included 38 sections and was designed to be implemented by 28 ministries and departments, the National Academy of Sciences and the Academy of Medical and Pedagogical Sciences of Ukraine. The programme addressed a range of priority areas, such as:

- health care policy development;
- promoting equality and equity in health care;
- improving the health of specific population categories (such as women, children and elderly people);
- reducing morbidity and controlling communicable diseases;
- minimizing accidents, injuries and poisonings;
- promoting a healthy lifestyle;
- resolving environmental health problems;
- improving health care financing and management;
- improving health care delivery to the population;
- improving education and training of health care workers;
- developing health information systems; and
- developing scientific research in health care.

2003
The Order of the Ministry of Health (N191) approved temporary norms for health services provided in the context of general practice/family medicine.

2004
- Order of the Ministry of Health (N1) about improvement of monitoring of primary care service and harmonization of related medical documentation.
- Order of the Ministry of Health (N55/137) introduced changes and additions to the rules for payment of medical personnel in general practice/family medicine facilities.
- Order of the Ministry of Health about a methodology to allocate the budget to different levels of health care, including primary care based on family medicine.

2005
Parliament passed a law amending the budget code of Ukraine which stipulated transfer of all financial resources for primary and secondary care in rural areas to the district budget. The Decree of the President of Ukraine (N1694) about urgent measures in reforming the health care system was also issued.

2006
The Order of the Ministry of Health (N308) about approval of the list of equipment for the feldshers units and ambulatories, with additions in Order of the Ministry of Health (N404), was issued. Decision of the Cabinet of Ministers (N421) approving the concep-

tion of the state programme on the development of primary care on principles of family medicine in the period up to 2010 was also produced. The general approach of family medicine-based primary care included provision for:

- improvement of the legislative basis of family medicine
- development of a more scientific approach to primary care reform and its effects
- evaluation of reforms
- intensified development of family medicine ambulatories
- promotion of family medicine among the population and medical specialists to develop more positive attitudes.

2007
This year saw the Decision of the Cabinet of Ministers (N815) on the state plan of the health care system development up to 2010 issued.

2008
Two important initiatives were launched in 2008:

- Order of the Ministry of Health (N122) about changes to the order from 2000 (N33) on norms and standards for workload of GPs/FDs; and
- Decision of the Cabinet of Ministers approving the programme "Ukrainian breakthrough – for people, not for politicians"; the programme is developing the legislative basis for the implementation of general practice/family medicine in Ukraine and aims to ensure that each Ukrainian family has a GP/FD within five years.

Latest policy developments on primary care

- The state programme on the development of primary care on principles of family medicine in the period up to 2010 continues to be developed but has not yet been approved. It is not possible to predict when this programme will come into effect.
- The national plan for health care system development up to 2010 (approved by the Cabinet of Ministers in 2007) is the guiding document in the reform of primary care in Ukraine. The national plan includes:
  - » intensification of the reorganization of primary care according to the principles of general practice/family medicine, with an emphasis on development in rural areas;
  - » changing the territorial principles of medical care to give patients free choice of physicians and ambulatories;
  - » recognition of the GP/FD as a manager of patient care (implying that a referral from the GP/FD demands an obligatory response from other physicians);
  - » implementation of contracting between primary care ambulatories and financing bodies;
  - » introduction of per capita funding in primary care;

» further development of medical education in general practice/family medicine (for both physicians and nurses) and increasing the number of GPs/FDs and family medicine specialists;
» introduction of financial and other incentives for primary care workers; and
» development and implementation of medical standards and clinical guidelines in primary care.

Central and decentralized health governance

Primary care at the Ministry of Health

A coordination committee on the development of family medicine has existed in the Ministry of Health since 2003. It took until 2007, however, before primary care had a defined structural position in the organization of the Ministry of Health with the creation of a subdivision for primary care within the Medical Care Department at the ministry.

Regional differences in primary care

There are no formal differences between oblasts in the provision of primary medical care. All oblast health departments are supposed to follow centrally developed regulation. There are nevertheless reasons why oblasts in fact do differ.

Policy development and regulation develop very slowly at central level. It may take years before policy plans are decided. Some oblasts are more active than others in anticipating expected policy measures for primary care. As a result, GP-based primary care has been implemented differently between oblasts. In some oblasts, most primary care physicians have been retrained and now work as GPs/FDs; in others, the traditional model of DT and paediatrician continues to be the dominant model of provision.

Another, probably more important, difference in the provision of primary care services is found between urban and rural areas. The GP-based model has been implemented more consistently in rural areas than in towns and cities, but availability of specialized services differs in urban and rural situations and the quality of premises and equipment in rural areas is usually lower than in urban. In addition, staff shortages in primary care (physicians as well as nurses) are much worse in rural than in urban practices. Access to primary medical care is more limited to populations in remote areas, particularly where no physicians are available and which rely on feldsher points.

Dimension: professional regulation

Licensing and (re-)accreditation

Physicians and nurses

Formal requirements apply for physicians to enable them to work at primary care level. To be allowed to work as a full physician, an individual needs to have a medical diploma in one of the specialties, either "paediatric care" or "curative care", and possess a specialist certificate (received on completion of an internship course). These requirements apply equally to physicians in public and private primary care.

Recertification every five years is obligatory for physicians and GPs/FDs. The following formal criteria for recertification apply:

- sufficient working experience (in years);

- successful completion of pre-attestation courses (including three exams – computer testing, oral theoretical and practical);
- positive external references and self-report about work (that has been reviewed); and
- a positive decision from the attestation committee after the oral exam.

In addition to this mandatory scheme, a system of voluntary recertification, through which physicians can apply to be promoted to a higher professional category, also exists. Physicians can achieve "second category" status after three years' postgraduate practice, "first category" after five years and "supreme category" after 10 years. Promotion to a higher category, which has salary implications, is based on performance over the preceding years.

Like physicians, nurses must recertify every five years. The same formal criteria as the obligatory recertification scheme for physicians also apply to nurses.

Dimension: conditions for the care process

Primary care workforce norms

The national norms for the population numbers for GPs/FDs, DTs and district paediatricians are listed in Table 6.

Table 6. Population numbers per full-time primary care worker: official norms

Type of primary care physician	Number of population (per FTE)
GP/FD	Urban areas: 1 500* Rural areas: 1 200*
DT	1 700**
District paediatrician	800***

*All age groups
**Population above 18 years
***Children and young people under 18 years

The norm population for GPs/FDs is lower than for DTs. The norm for GPs/FDs working in rural areas is 1200 patients and 1500 in urban areas (both children and adults). The norm population for DTs is 1700 adults and for district paediatricians 800 children.

Table 7 shows current shortages of GPs/FDs and nurses in primary care. Severe shortages have been reported nationwide for both professions, meaning that the patient populations of GPs/FDs are actually (much) larger than the average norm anticipates.

Table 7. Regional or national shortages reported for GPs/FDs and primary care nurses

Primary care profession	No shortage	Shortage in some regions	Modest shortage nationwide	Severe shortage nationwide
GPs/FDs				√
Primary care nurses				√

Mode of practice

No information was available on the type of practice in which GPs/FDs are working, which could be one of the following:

- single-handed (solo)
- with two or three GPs/FDs in the same building (without medical specialists)
- with four or more GPs/FDs in the same building (without medical specialists)
- mixed practice with GPs/FDs and medical specialists.

Primary care gatekeeping

As has been noted above, patients do not need a referral from their primary care physician before visiting a medical specialist.

Dimension: conditions for responsiveness

The role of NGOs/stakeholders

The Ukrainian Association of Family Medicine

The Ukrainian Association of Family Medicine is an important stakeholder organization in primary care. It advocates for family physicians in the country and develops educational activities for its members. The association participates in the process of attestation of family physicians.

National Coordination Committee on General Practice/Family Medicine

This committee works at Ministry of Health level and is involved in approving teaching programmes and developing curricula for nurses and physicians in family medicine and clinical guidelines at national level. It produces recommendations for parliament, the government and the Ministry of Health on matters related to primary care and family practice.

Regional coordination committees on general practice/family medicine

The regional health administrations of each oblast have regional coordination committees which develop recommendations and plans related to family practice in their region.

All-Ukrainian Council for the Defence of Patients' Rights

This organization operates at national level and provides legal and judicial support for patients, consultation services and educational activities. The council distributes in-

formation on the rights of patients in health care and participates in the development of state policy on health and health care.

Regional organizations
There are many NGOs active at regional and local level. In general, they tend to have little influence on health care systems and lack resources.

Patients' rights

The rights and obligations of citizens of Ukraine on health and health care are formulated in 1992's basic law on health care in Ukraine. According to this law, citizens have the right to:

- receive medical care of good quality
- have access to valid information about their own health
- be involved in the development of health care policy and legislation
- be compensated in the case of health damage
- appeal against incorrect action by medical staff and health care authorities
- get a second opinion
- to confidentiality.

But while patients' rights have been acknowledged legally, mechanisms to realize them in practice have not yet been developed. A bill on patients' rights was introduced in 2007 but has not yet been approved by parliament. This bill describes patients' rights to:

- life
- have equal access to medical care
- choose a physician and medical care
- participate in the planning and implementation of medical treatment
- receive full medical information
- give consent or to reject medical procedures
- receive all necessary medical care.

The bill emphasizes specific aspects of care for children and reflects ethical issues. It also sets out mechanisms for implementation.

Patients' choice

Patients in Ukraine cannot choose their primary care provider. They are assigned to the health care facility that covers the residential area in which they live. They are usually also assigned to a particular physician in the centre, either a DT or a GP/FD. Patients have greater potential to choose a physician in the facility to which they are assigned in urban policlinics than in rural ambulatories. In the private sector, which is not well developed and is really only available in large cities, patients have free choice of physician.

Patient complaints

Health care facilities in Ukraine, including those in primary care, are obliged to operate a procedure for dealing with complaints from the population they serve. Dissatisfied patients can directly address the administration of their primary care facility or can deliver a written complaint.

Resource-generation aspects

Dimension: primary care workforce

The total number of active physicians in Ukraine in 2007 was 123 377, of whom 17.4% were working in primary care in ambulatories and policlinics. Of physicians active in primary care in 2008, 34.9% were GPs (by training), 38.8% were DTs and 26.2% district paediatricians. The number of active nurses in primary care was not available. The total number of active midwives and active feldshers was 17 674 (Table 8).

Table 8. Total and relative numbers of medical and non-medical workers in primary care

Active providers	Number (in 2008)	As percentage of:
GPs/FDs	7 362	all active primary care physicians*: 34.9%
DTs	8 182	all active primary care physicians*: 38.8%
District paediatricians	5 526	all active primary care physicians*: 26.2%
All primary care physicians*	2 480	all active physicians in Ukraine**: 17.4%
Primary care nurses	No figures available	all active nurses in Ukraine: no figures available
Primary care midwives and feldshers (2007)	17 674	all active midwives in Ukraine: no figures available

*Calculated as the sum of GPs/FDs, DTs and paediatricians (= 21 070)
**Total number of active physicians: 123 377 (2008); according to WHO Health for All database, 10.4% of all physicians are working in primary care (data may include physicians who are no longer active).

Taking the national norm for the practice population into account, Ukraine would need about 33 000 GPs/FDs to cover the whole country with family medicine-based primary care services. At present, 22% of this total of GPs/FDs is available. If all current DTs and paediatricians were retrained as GPs/FDs, almost two thirds of the required number of GPs/FDs would be available.

Dimension: professional development
Professional organizations and journals

The Ukrainian Association of Family Medicine
The Ukrainian Association of Family Medicine defends the financial and material interests of GPs/FDs in Ukraine and is involved in education and professional development activity (such as the development of clinical guidelines). The association also undertakes scientific activities and represents Ukraine in the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA). The association currently has 150 members.

Association of Family Physicians of Kiev and Kiev region
This is a regional organization of GPs/FDs in the capital and the surrounding oblast.

Journals
The following journals for GPs/FDs are published in Ukraine:

- *Family Medicine* (published four times per year)
- *Library of the Family Physician and Family Nurse* (six times per year)
- *Family Physician* + (monthly).

Medical education
There are 17 medical universities in Ukraine (of which 15 are state-run and 2 are private) (Table 9). There are also four medical faculties providing undergraduate and postgraduate medical education in general universities and three medical education establishments that provide only postgraduate medical education.

Table 9. Institutes of medical education involved in (re)training of GPs/FDs; professorships in family medicine and duration of the retraining programme

Location	Professors in family medicine	Duration of general practice/family medicine (re)training course
Medical universities		
Kiev	none	6 months
Donetsk	none	6 months
Odessa	none	6 months
Dnepropetrovsk	none	6 months
Kharkiv	none	6 months
Chernivtsy	none	6 months
Zaporizhzhya	none	6 months
Poltava	none	6 months
Vinnitsa	none	6 months
Ternopil	none	6 months
Lviv	none	6 months

Location	Professors in family medicine	Duration of general practice/family medicine (re)training course
Ivano-Frankivsk	none	6 months
Simpheropol	none	6 months
Uzhgorod	none	6 months
Sumy	none	6 months
Medical academies for postgraduate education		
Kiev	none	6 months
Dnipropetrovsk	none	6 months
Kharkiv	none	6 months

There are two routes to becoming a GP/FD:

- a two-year postgraduate training programme ("internship") for graduates of medical universities; and

- a six-month retraining course ("secondary specialization course") for physicians of other specialties who want to achieve the specialty of "general practice/family medicine".

There are no professors in general practice/family medicine in Ukraine: general practice/family medicine is not recognized as a scientific specialty in Ukraine, which is a condition for professorships.

The majority of medical universities provide a postgraduate training programme in general practice/family medicine for physicians (Kharkiv Pharmaceutical Academy and the medical faculties in general universities do not). The duration of postgraduate education in family medicine is 24 months, of which 12 months are spent in primary care practice. The duration of the retraining course is six months (without practical training in primary care practice)

The percentages of all medical graduates choosing to enrol on postgraduate training in general practice/family medicine was 11.6 % in 2006, 8.0% in 2007 and 12.0% in 2008. No percentage rise is expected in the near future, since the prestige (and salary) associated with the specialty continues to be low and working conditions leave much to be desired: indeed, not all physicians who have achieved a certificate in general practice/family medicine choose to work in their new specialty.

Quality assurance, indicators and clinical guidelines

Oblast health authorities are responsible for monitoring primary care services at local level. Quality control includes internal checks within ambulatories and policlinics and external clinical auditing, which is undertaken through use of the clinical records of GPs/FDs and DTs. Practice inspections by supervisors or health authorities are not routine.

The recertification procedure for physicians and nurses every five years is a basic quality assurance measure that includes obligatory periodic tests of professional knowledge and skills. Health care workers take courses offered by medical education institutes in preparation for these tests.

The following indicators were reported to be routinely used on a yearly basis by the Ministry of Health to monitor the quality of primary care services:

- proportion of non-referral patient contacts in family medicine ambulatories
- referral rate to medical specialists
- hospital admission rate
- mortality rate from myocardial infarction
- mortality rate from cerebral infarction
- TB morbidity rate.

Research in general practice/family medicine

Ongoing and planned research in the field of general practice/family medicine is shown in Table 10.

Table 10. Ongoing and planned research in the field of general practice/family medicine

Title of study	Timing	Institute
Organization of emergency care in rural areas	2008–2010	Ternopyl Medical University
Development and implementation of the model of primary care based on family medicine	2009–2011	National Medical University
Development and implementation of medical care for elderly by family physicians	2006–2010	National Medical University
Evidence for access and quality of family medicine	2006–2010	Kharkiv Medical Academy of Postgraduate Education
Development of new forms and methods for quality improvement in medical education in general practice/family medicine	Prepared	Ukraine Medical Stomatological Academy

Clinical guidelines

The PCET national-level questionnaire asked whether clinical guidelines had been produced for specific use by GPs/FDs. Details of five guidelines that were considered most important for the daily work of GPs/FDs were requested, with information on the agency that initiated the development process, the involvement of GPs/FDs in the development process and the mode of distribution. The following five examples were provided:

- "Temporary state social norms for medical care provided in general practice/family medicine": approved by an Order of the Ministry of Health in 2003 and forwarded to all ambulatories of family medicine;
- "About improvement of gynaecological and obstetric care in Ukraine": approved by an Order of the Ministry of Health in 2002;

- "About approval of clinical protocols for medical care in emergency situations with children in outpatient and inpatient situation": approved by an Order of the Ministry of Health in 2004;

- "About approval of clinical protocols for gynaecology and obstetric care": approved by an Order of the Ministry of Health in 2005; and

- "About approval of the clinical protocol of medical care for healthy children up to three years of age": approved by an Order of the Ministry of Health in 2008.

All five guidelines have been developed and distributed by the Ministry of Health. Although the Ukranian Association of Family Medicine was reported to be involved in guideline development, there was no indication that GPs/FDs had been actively involved in the process of drafting the guidelines. Some of the documents mentioned seemed to be ministerial orders rather than guidelines offering practitioners the latest evidence in the treatment of specific conditions and designed for use in direct patient care. Also, the cited documents are not recent, which suggests a regular updating process has not been put in place.

No clinical protocols or guidelines for nurses exist in Ukraine, but there are standards for nurses' accreditation, which were developed in 2000. These include a description of measures for general preventive work (such as check-ups), emergency care and procedures to prepare patients for medical examinations and investigations. The standards have not been evaluated or upgraded since 2000.

Financing aspects

Dimension: primary care financing and expenditure

Expenditure on primary care in Ukraine is estimated to be 6%–10% of the total public health budget. National expenditure for outpatients' medical care (including both primary and secondary level) accounts for 10.8% of the total public health budget. Around two thirds of this is estimated to be spent in primary care.

Dimension: financial incentives

Payment mechanisms

Almost all (more than 99%) of GPs/FDs are state employed and salaried. Salary levels are jointly established by the Ministry of Labour and Ministry of Health and are marginally related to the size of the practice population. If the population of a catchment area is above the official norm, 1.5 of the standard salary is paid. Salary is also related to the physician's qualification category ("supreme", "first" or "second" category), which largely depends on years of experience.

Some additional payments are possible for: combining specialties and positions; working in larger territories; night work (up to 50% of salary); possession of a scientific degree (up to 25%); and for continuous service in rural areas (up to 40%).
A small number of private physicians work in primary care: they earn payments per visit.

Income levels

Salaries of physicians in the state health care sector in Ukraine are overall extremely low (see Table 11). Standard salaries show little difference between specialties. Retrained GPs/FDs earn a little more (+7%) than other physicians, who all have the same standard salary, meaning that DTs, paediatricians and medical specialists all have the same basic salary as do primary care physicians.

Table 11. Gross monthly salaries of medical professionals in various qualification categories (2008)

Medical professionals	Gross salary per month (US$ equivalents) (different qualification categories)			
	without	2nd	1st	supreme
GPs/FDs	140	150	161	171
DTs	129	140	150	161
District paediatricians	129	140	150	161
Gynaecologists	129	140	150	161
Specialists in internal medicine	129	140	150	161
Cardiologists (in policlinic)	129	140	150	161

Source: official data

Dimension: financial access

The state-guaranteed package of services is not offered free of charge to the whole population. Full coverage for free primary care services is only available to certain categories of the population, such as elderly and disadvantaged people. Visits to GPs/FDs are therefore subject to copayments and drugs prescribed by GPs/FDs are not free. Informal payments continue to be common practice.

Aspects of primary care service delivery

National data on utilization and provision of services

Table 12 shows that the average rate of visits to primary care services per patient is 4.0 per year. The official referral rate is 4.66% of patient contacts and the hospital admission rate 1.27%. Chapter 4 provides more detail on service delivery in primary care based on the results of the survey among GPs/FDs and DTs.

Table 12. Indicators of demand and utilization of primary care services

Indicators	Rate
Number of patient contacts in primary care per 1 000 population per year	4 000
Number of referrals made in primary care to medical specialists per 1 000 patient contacts	46.6*
Number of hospital admissions from primary care per 1 000 patient contacts	12.7
Number of medicine prescriptions made in primary care per 1 000 patient contacts	Not available

*On the basis of the survey among physicians, net referral rates were calculated as an indication: see Chapter 4

4. GENERAL PRACTITIONERS/ FAMILY DOCTORS AND DISTRICT THERAPISTS IN PRIMARY CARE: SURVEY RESULTS

This chapter presents the results of the survey among GPs/FDs and DTs in the Kiev and Vinnitsa regions of Ukraine. Physicians who completed postgraduate training or the retraining programme are GPs/FDs; the others are DTs. The results are based on their experiences and opinions.

The physicians' survey dealt with 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
- several dimensions of clinical task profiles.

Respondents' characteristics

The survey had a total of 283 responding primary care physicians: 142 in Kiev region and 141 in Vinnitsa region (Table 13). A majority of respondents in Kiev region were GPs/FDs (77%), while all were GPs/FDs in Vinnitsa region. A large majority of physicians (Kiev region: 93%; Vinnitsa region: 88%) worked in rural practices.

Table 13. Numbers of GPs/FDs and DTs in both regions

Physicians	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	Urban	Rural	Urban	Rural	Total	Percent-age
GPs/FDs	7	95	17	124	243	85.9
DTs	3	37	–	–	40	14.1
TOTAL	**10**	**132**	**17**	**124**	**283**	**100**

Table 14 shows that primary medical care was more often provided by women: 57.9% of the responding physicians were female and 42.1% male. Relatively more men than women had completed a postgraduate training or a retraining programme: 93% versus 84%.

Table 14. Gender of urban and rural GPs/FDs and DTs

Physicians	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	Urban	Rural	Urban	Rural	Total	Percent-age
GPs/FDs						
• Female	5	52	12	66	135	47.7
• Male	2	43	5	58	108	38.2
DTs						
• Female	2	27	–	–	29	10.2
• Male	1	10	–	–	11	3.9
TOTAL	**10**	**132**	**17**	**124**	**283**	**100**

Table 15 provides key profile data on the physicians and their practices in both regions. In Kiev region, eight physicians (6%) had completed an official internship programme, while in Vinnitsa region, four (3%) had done so. Almost three quarters of physicians (72%) in Kiev region had completed a retraining programme while practically all in Vinnitsa region had completed such a programme (96%).

One of the characteristics of the new system is that the same physician now provides primary medical services for children as well as adults. In Kiev region, however, less than half of physicians (43%) indicated that they served patients of all age groups, with slightly more than half (57%) doing so in Vinnitsa region.

Table 15. Summary of characteristics of physicians in Kiev and Vinnitsa regions

Features	Kiev region (N=142)			Vinnitsa region (N=141)		
	Total	Percentage	Valid N	Total	Percentage	Valid N
Male physicians	56	39	142	63	45	141
Physicians' internship completed	8	6	142	4	3	141
Physicians' retraining	10	132	17	124	283	100
programme completed	102	72	142	135	96	141
Physicians serving adults and children	104	43	142	138	57	141
Physicians under the age of 50 years	86	61	142	77	55	141
State employed with salary	135	95	142	193	99	141
Physicians average age (years) • GPs/FDs • DTs	Urban 39.7 45.3	Rural* 45.8 49.2		Urban 47.7 –	Rural* 48.8 –	
Average years working as: • GP • DT	3.1 15.1			4.3 21.3		

*Including small towns and rural areas

The average age of respondents was 46.5 years (45.4 years in Kiev region, 47.8 years in Vinnitsa region). On average, GPs/FDs were almost two years younger than DTs. In Kiev region, 61% of the respondents were under the age of 50 years, while this proportion was 55% in Vinnitsa region. The number of years of experience in their current profession was as follows:

- Kiev region: GPs/FDs had on average 3.1 years of experience as a GP/FDand DTs had 15.1 years of experience as a DT;

- Vinnitsa region: GPs/FDs had 4.3 years of experience as a GP/FDand DTs 21.3 years as a DT.

Accessibility of care

Organizational access

Workload

Table 16. provides an overview of various aspects of workload. The size of the practice (meaning the number of patients a physician is responsible for) varied by region and by type of practitioner. Practices in Kiev region were on average larger than those of GPs/FDs in Vinnitsa region. The average list sizes for GPs/FDs and DTs were around 70% above the national norms (which is 1200 patients per GP/FDin rural areas and 1500 in urban areas; and 1700 patients per DT).

Despite smaller practices, GPs/FDs in Vinnitsa reported higher workloads in terms of patient contacts. Vinnitsa GPs/FDs had more patient consultations per day than GPs/FDs in Kiev (25 and 21 per day respectively) and more home visits per week (27 and 20 per week respectively). DTs in Kiev had 25 consultations on an average working day and 14 home visits per week.

The very large list sizes point to serious staff shortages. As Table 16 shows, 59 GPs/FDs in Kiev region (58%) and 76 GPs/FDs in Vinnitsa region (54%) confirmed staff shortages existing for more than six months. Two thirds of DTs in Kiev region (68%) also reported staff shortages. The most common shortages cited were of DTs (88 times) followed by paediatricians (66 times), gynaecologists (60 times) and nurses and support staff (both mentioned 41 times).

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

Aspects of workload	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	Mean	Valid N	Mean	Valid N	Mean	Valid N
List size (number of patients):						
• GPs/FDs	2 271	92	1 998	141	2 106	233
• DTs	2 770	32	–	–	2 770	32
Number of patient consultations per day:						
• GPs/FDs	21	102	25	141	23	243
• DTs	25	40	–	–	25	40
Number of home visits per week:						
• GPs/FDs	20	102	27	141	24	243
• DTs	14	40	–	–	14	40
Number of working hours per week:						
• GPs/FDs	38.3	102	40.3	140	39.4	242
• DTs	26.2	40	–	–	26.2	40
Number of hours reading per month:						
• GPs/FDs	23.1	102	24.6	141	24.0	243
• DTs	32.5	40	–	–	32.5	40
Number of hours taking courses per month:						
• GPs/FDs	3.8	102	4.8	141	4.4	243
• DTs	5.8	40	–	–	5.8	40
Number reporting staff shortages:						
• GPs/FDs	59	102	76	141	135	243
• DTs	27	40	–	–	27	40

DTs reported much shorter working weeks than GPs/FDs. GPs/FDs reported that their working week normally amounted to 38.3 hours (in Kiev) and 40.3 hours (in Vinnitsa). In contrast, the DTs in Kiev reported a mean working week of 26.2 hours.

The average number of hours spent per month on reading professional journals or medical information, including accessing the Internet, was higher among DTs (32.5 hours per month) than among GPs/FDs (24 hours). DTs also reported spending more time on training or taking courses than GPs/FDs (5.8 and 4.4 hours per month respectively).

Table 17 shows the same overview of various aspects of workload as Table 16, but not by urbanization. In Kiev region, urban physicians had on average larger list sizes and more patient consultations per day, and more home visits but fewer working hours per week than rural physicians. In Vinnitsa region, the average list size of urban physicians was smaller, but the number of consultations per day and the number of home visits per week was greater than for rural physicians. The number of working hours per week in Vinnitsa region was lower for urban physicians compared to rural physicians. In Kiev region, urban physicians spent more time reading professional journals or accessing medical information than rural physicians, while it was the other way round in Vinnitsa region. In both regions, rural physicians spent slightly less time on training and taking courses than urban physicians, and staff shortages were reported in both regions, especially by urban physicians (90% and 71% respectively).

Table 17. Urban and rural physicians' workload and use of time, by region

Aspects of workload	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	Mean	Valid N	Mean	Valid N	Mean	Valid N
List size (number of patients):						
• urban physicians	2 636	8	1 732	17	2 021	24
• rural physicians	2 384	116	2 034	124	2 203	240
Number of patient consultations per day:						
• urban physicians	26	10	29	17	28	27
• rural physicians	22	132	24	124	23	256
Number of home visits per week:						
• urban physicians	24	10	33	17	30	27
• rural physicians	18	132	26	124	22	256
Number of working hours per week:						
• urban physicians	31.9	10	38.3	17	35.9	27
• rural physicians	35.1	132	40.6	123	37.7	256
Number of hours reading per month:						
• urban physicians	28.3	10	21.9	17	24.3	27
• rural physicians	25.6	132	25.0	124	25.3	256
Number of hours taking courses per month:						
• urban physicians	4.5	10	5.4	17	5.1	27
• rural physicians	4.4	132	4.7	124	4.5	256
Number reporting staff shortages:						
• urban physicians	9	10	12	17	21	27
• rural physicians	77	132	64	124	141	256

Patients' access and availability of services

Patients in both regions could, if desired, generally see the physician on the same day (Table 18). Only one third of physicians in both regions reported opening hours in the evening at least once per week. At least monthly opening during a weekend day (normally a Saturday) was reported by three quarters of respondents in both regions. Normally, a telephone number was provided to patients when practices were closed (82% in Kiev region and 88% in Vinnitsa region). This difference between regions may be related to the availability of emergency services outside office hours.

Sessions or clinics for specific patient groups were reported by almost two thirds of respondents in both regions. Most frequently mentioned were clinics for pregnant women, for patients with diabetes and for patients with hypertension.

The bottom line of Table 18 shows that 56% of physicians in the Vinnitsa region and 41% in the Kiev region were working within five kilometres of a general hospital.

Table 18. Indicators of access to the practice

Aspects of patients' access	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Same day visits are possible	99	142	100	141	99.3	283
Evening opening at least once per week	37	142	36	141	36.7	283
Weekend day opening at least once per month	76	142	73	141	74.6	283
Phone number available for patients when practice is closed	82	142	88	141	85.2	283
Clinics or sessions in use for special patient groups						
• for diabetes patients	64	84	82	88	73.3	172
• for hypertensive patients	66	84	69	88	67.4	172
• for family planning information	36	84	75	88	55.8	172
• for pregnant women	71	84	83	88	77.3	172
• for the elderly	31	84	30	88	30.2	172
• for other groups	1	84	6	88	3.5	172
No clinics or sessions for special patient groups	39	142	36	141	37.8	283
Practice situated five or more kilometres from nearest general hospital	59	142	44	141	51.2	283

Quality improvement

Clinical guidelines and procedures for dealing with patient complaints are tools used to improve the quality of care. Evaluations can be used to assess patients' satisfaction, the satisfaction of community representatives and job satisfaction among GPs/FDs, DTs and nurses.

Table 19 shows the utilization of different methods of quality improvement. The use of clinical guidelines, complaints procedures and evaluative methods were on average more frequently reported in Vinnitsa region than in Kiev region . In Kiev, DTs more frequently reported using clinical guidelines and having a complaints procedure in place.

Table 19. Use of clinical guidelines, complaints procedure and evaluation methods

Quality improvement	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Using clinical guidelines:						
• GPs/FDs						
» frequently	66	98	75	136	71	234
» occasionally or seldom/never	30	98	22	136	26	234
• DTs						
» frequently	75	39	–	–	75	39
» occasionally or seldom/never	23	39	–	–	23	39
Having a procedure for dealing with complaints:						
• GPs/FDs	54	102	70	141	63	243
• DTs	73	40	–	–	73	40
Using evaluation methods:						
• investigation of patients' satisfaction						
» GPs/FDs	30	102	51	141	42	243
» DTs	30	40	–	–	30	40
• interviewing community representatives about satisfaction with the centre/practice						
» GPs/FDs	30	102	42	141	37	243
» DTs	28	40	–	–	28	40
• interviewing GPs/FDs/DTs and nurses about their job satisfaction						
» GPs/FDs	31	102	48	141	41	243
» DTs	25	40	–	–	25	40

Responsiveness

A majority of physicians reported being involved in clinics or special sessions for particular patient groups. However, 39% of physicians in Kiev region and 36% in Vinnitsa region indicated that there were no such clinics (see Table 20). Most frequently mentioned in both regions were clinics or sessions for pregnant women, for patients with diabetes and for people with hypertension. In Vinnitsa region, however, the frequency was higher.

The regions contrasted sharply in relation to family planning clinics: they were much more frequently reported in Vinnitsa than in Kiev. Special information sessions for elderly people were reported by less than one third of physicians in both regions. Clinics for other groups were rarely reported.

Continuity of care

Information continuity

Routinely keeping records of patients' medical information is a major condition for quality and continuity of care and was part of daily practice for most physicians in both regions (Table 20). Retrieval of information is something different, but equally important. The identification of patient groups on the basis of a shared diagnosis, health risk or age may enable efficient approaches to active monitoring and prevention. The practice information systems of three quarters of the physicians in Kiev region and 82% of those in Vinnitsa seemed to be tailored to generate such lists.

A core element of cooperation between primary and secondary care is the information that accompanies patients when they are referred to medical specialists or are hospitalized, and which accompanies them when they go back to primary care. At least three quarters of respondents in both regions indicated that they used referral letters for most referred patients. More DTs routinely used medical records and referral letters than GPs/FDs.

Computers were very rarely used in both regions by GPs/FDs and DTs. Around 80% of the physicians reported that they did not use a computer. Computers were used for slightly more applications in Kiev region than in Vinnitsa region.

Table 20. Availability and use of clinical information and use of computers

Performance	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Keeping patients' medical records routinely for all contacts:						
• GPs/FDs	80	102	79	141	79	243
• DTs	90	40	–	–	90	40
Easy to generate a list of patients by diagnosis or health risk:						
• GPs/FDs	75	102	82	141	79	243
• DTs	75	40	–	–	75	40
Using referral letters for all or most referred patients:						
• GPs/FDs	73	102	79	141	76	243
• DTs	85	40	–	–	85	40
Using the computer for:						
• booking appointments						
» GPs/FDs	2	102	5	141	4	243
» DTs	6	40	–	–	8	40
• bills/financial administration						
» GPs/FDs	2	102	1	141	2	243
» DTs	0	40	–	–	0	40
• medicine prescriptions						
» GPs/FDs	5	102	1	141	3	243
» DTs	5	40	–	–	5	40
• keeping patients medical records						
» GPs/FDs	8	102	11	141	10	243
» DTs	0	40	–	–	0	40
• writing referral letters						
» GPs/FDs	8	102	4	141	5	243
» DTs	3	40	–	–	3	40
• searching information						
» GPs/FDs	12	102	6	141	8	243
» DTs	18	40	–	–	18	40
Not using a computer:						
• GPs/FDs	82	102	82	141	82	243
• DTs	78	40	–	–	78	40

Coordination of care

Cohesion within primary care

One fifth to a quarter of respondents worked in an ambulatory setting without other physicians. Physicians in Kiev region tended to work with another physician more often than those in Vinnitsa region (Table 21). One third of respondents in both regions worked in the same building with medical specialists.

Table 21. Physicians working in the policlinic or ambulatory

Working in the same building	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
One physician (solo)	23	142	21	140	22	282
Two physicians working in the same building	23	142	11	140	17	282
Three or more physicians working in the same building	14	142	15	140	15	282
Primary care physicians and medical specialists working in the same building	39	142	32	140	36	282
TOTAL	**100**	**142**	**100**	**140**	**100**	**282**

Only half of the physicians in Vinnitsa region worked in the same building with a practice nurse; in Kiev, this was reported to be the case with 80% of respondents (Table 22). In contrast, working with a family nurse was much more usual in Vinnitsa (88%) than in Kiev (59%). Respondents in Kiev were working in the same building with community nurses, midwives and feldshers more frequently than those in Vinnitsa. A laboratory technician was mentioned by two thirds of physicians in both regions. Just over one in four in Vinnitsa region and just fewer than one in five in Kiev region mentioned other disciplines such as dentists, neurologists and physiotherapists.

Table 22. Other disciplines working in the policlinic or ambulatory

Other disciplines	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Practice nurse	80	142	50	141	65	283
Community nurse	56	142	41	141	49	283
Midwife/birth assistant	74	142	62	141	68	283
Family nurse	59	142	88	141	74	283
Feldsher	61	142	38	141	50	283
Support worker	68	142	65	141	66	283
Other	18	142	28	141	23	283

Regular meetings with colleagues of one's own discipline and with district nurses were reported by a large majority of respondents (Table 23). GPs/FDs in Vinnitsa reported

having meetings with workers of all disciplines cited in Table 23 more frequently than those in Kiev, where the DTs did better in this respect than the GPs/FDs.

Meetings with district nurses/family nurses were mentioned by well over 80% of respondents, while regular meetings with community nurses were cited by about half of the physicians. Regular meetings with a midwife or birth assistant were reported by around two thirds of the physicians, but more frequently in Vinnitsa region. Regular meetings with pharmacists were reported by about 60%.

Table 23. Face-to-face meetings with other primary care workers

Face-to-face meeting at least once per month with	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
(Other) GP/DT						
• GPs/FDs	81	102	96	141	90	243
• DTs	95	40	–	–	95	40
District nurse/family nurse						
• GPs/FDs	75	102	86	141	81	243
• DTs	85	40	–	–	85	40
Community nurse						
• GPs/FDs	39	102	58	141	50	243
• DTs	53	40	–	–	53	40
Midwife/birth assistant						
• GPs/FDs	58	102	72	141	66	243
• DTs	70	40	–	–	70	40
Pharmacist						
• GPs/FDs	48	102	68	141	60	243
• DTs	63	40	–	–	63	40

Contact with other care levels and with the community

The level of contact with other medical specialists was generally high. At least eight out of ten physicians in both regions had regular consultations with the following specialists: gynaecologists; surgeons; neurologists; dermatologists; endocrinologists; cardiologists; ear, nose and throat specialists; and ophthalmologists. Contact was less frequent with secondary-level paediatricians and internal medicine specialists; GPs/FDs reported having such contacts more often than DTs (Table 24).

Table 24. Consultation with, and asking advice from, medical specialists

"Frequently" or "sometimes" asking advice from	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Secondary-level paediatricians						
• GPs/FDs	77	102	77	141	77	243
• DTs	68	40	–	–	68	40
Internal medicine specialists						
• GPs/FDs	52	102	69	141	62	243
• DTs	43	40	–	–	43	40
Gynaecologists						
• GPs/FDs	81	102	85	141	84	243
• DTs	93	40	–	–	93	40
Surgeons						
• GPs/FDs	89	102	91	141	90	243
• DTs	90	40	–	–	90	40
Neurologists						
• GPs/FDs	93	102	95	141	94	243
• DTs	98	40	–	–	98	40
Dermatologists						
• GPs/FDs	77	102	79	141	79	243
• DTs	85	40	–	–	85	40
Endocrinologists						
• GPs/FDs	86	102	85	141	86	243
• DTs	95	40	–	–	95	40
Cardiologists						
• GPs/FDs	79	102	83	141	82	243
• DTs	85	40	–	–	85	40
Ear, nose and throat specialists						
• GPs/FDs	85	102	87	141	86	243
• DTs	83	40	–	–	83	40
Ophthalmologists						
• GPs/FDs	86	102	90	141	88	243
• DTs	83	40	–	–	83	40

The reported number of patients referred to these and other specialists in a period of four weeks prior to filling out the questionnaire showed moderate variation, with the highest average referral rates being to gynaecologists and neurologists in both regions (Table 25). The lowest rates in both regions were for referral to dermatologists and to oncologists. (These calculated referral rates should be taken as indications and to compare GPs/FDs and DTs in this study).

Table 25. Number of patients referred by primary care physicians to medical specialists during the previous four weeks, by region: indicative overall referral rates

Patients referred to:	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	Mean (range)	Valid N	Mean (range)	Valid N	Mean (range)	Valid N
secondary-level paediatricians	3.2 (0–30)	142	4.4 (0–41)	141	3.8 (0-41)	283
internal medicine specialists	3.1 (0–25)	142	3.7 (0–40)	140	3.4 (0-40)	282
gynaecologists	5.9 (0–70)	141	5.1 (0–61)	139	5.5 (0-70)	280
surgeons	3.5 (0–34)	142	4.7 (0–40)	141	4.1 (0-40)	283
neurologists	4.8 (0–35)	142	4.5 (0–40)	140	4.6 (0-40)	282
dermatologists	1.5 (0–20)	142	1.8 (0–15)	141	1.6 (0-20)	283
ear, nose and throat specialists	3.3 (0–30)	142	3.2 (0–24)	141	3.2 (0-30)	283
ophthalmologists	2.4 (0–16)	142	4.3 (0–64)	141	3.3 (0-64)	283
endocrinologists	3.4 (0–24)	142	3.1 (0–55)	141	3.2 (0-55)	283
oncologists	2.0 (0–18)	142	2.2 (0–41)	141	2.1 (0-41)	283
Total referrals per four weeks	32.9		34.1		33.5	
Reported referrals as percentage of all office contacts and home visits						
• GPs/FDs	6.49%		6.10%		6.24%	
• DTs	5.89%		–		5.89%	
• Total	6.31%		6.10%		6.19%	

The calculated referral rates to gynaecologists, neurologists and endocrinologists were slightly higher in Kiev region than in Vinnitsa region, while the referral rates to secondary-level paediatricians, internal medicine specialists, surgeons, dermatologists, ophthalmologists and oncologists were slightly higher in Vinnitsa region.

The total number of referrals in the four-week period prior to the survey in Kiev region was 32.9 and in Vinnitsa region 34.1. This means that in Kiev region, 6.31% of reported patient contacts (in the office and in patients' homes) resulted in referral to a medical specialist; in Vinnitsa region, the comparative figure was 6.10%. (Self-referrals and other "bypasses" of primary care are not included in these figures).

The bottom line in Table 25 shows that the referral rate of DTs was lower than that of GPs/FDs in both regions; GPs/FDs in Vinnitsa, however, had a somewhat lower referral rate than GPs/FDs in Kiev.

Table 26 suggests that slightly more patients in urban areas were referred to all specialists than in rural areas, except to oncologists. The number of referrals to ophthalmologists and endocrinologists in urban areas was more than twice as high as in rural areas.

Table 26. Number of patients referred by primary care physicians to medical specialists during the previous four weeks, by urbanization: indicative overall referral rates

Patients referred to:	Urban (N=27)		Rural (N=256)		Total (N=283)	
	Mean (range)	Valid N	Mean (range)	Valid N	Mean (range)	Valid N
secondary-level paediatricians	4.7 (0–35)	27	3.7 (0–41)	256	3.8 (0-41)	283
internal medicine specialists	5.7 (0–40)	27	3.2 (0–40)	255	3.4 (0-40)	282
gynaecologists	6.6 (0–61)	25	5.4 (0–70)	255	5.5 (0-70)	280
surgeons	5.9 (0–35)	27	3.9 (0–40)	256	4.1 (0-40)	283
neurologists	7.8 (0–40)	26	4.3 (0–35)	256	4.6 (0-40)	282
dermatologists	1.9 (0–8)	27	1.6 (0–20)	256	1.6 (0-20)	283
ear, nose and throat specialists	5.9 (0–24)	27	2.9 (0–30)	256	3.2 (0-30)	283
ophthalmologists	7.5 (0–64)	27	2.9 (0–24)	256	3.3 (0-64)	283
endocrinologists	6.6 (0–55)	27	2.9 (0–32)	256	3.2 (0-55)	283
oncologists	2.0 (0–15)	27	2.1 (0–41)	256	2.1 (0-41)	283
Total referrals per four weeks	41.8		32.7		33.5	
Reported referrals as percentage of all office contacts and home visits	6.46%		6.17%		6.19%	

Connections with the community were fairly strong in both regions, with regular meetings with local authorities reported by about three quarters of respondents (Table 27). However, regular meetings with community or social workers seemed to be less common, and having community representatives on the board was exceptional. Only half of physicians in Kiev region and two thirds of those in Vinnitsa region indicated that they had regular meetings with community and/or social workers, while less than 20% of physicians in both regions indicated that they had community representatives on the board of their centre. Fifteen per cent of respondents in Vinnitsa and 32% in Kiev were unable to give an answer.

Table 27. Connections with the community

Kind of connections	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Regular meetings with local authorities	75	142	70	141	73	283
Regular meetings with community/social workers	50	142	66	140	58	282
Community representative(s) is/are in the board of your centre/practice	13	142	18	141	16	283

Comprehensiveness of care

Practice conditions

Physicians were asked whether information materials such as leaflets and posters had been displayed or made available in the waiting room of their practice or centre (policlinic or ambulatory). The results are shown in Table 28.

The situation of patient information materials was comparable in both regions. Practically all physicians in Vinnitsa region confirmed the availability of materials on cardiovascular disease, smoking cessation, diabetes and vaccinations. Information materials were less-often available in Kiev region, especially materials about self-treatment for colds, obesity, contraception and a healthy diet. Information about social services was reported to be available by a minority of physicians in both regions.

Table 28. Availability of information materials for patients in the waiting room

Subject of information materials	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Cardiovascular disease risks	87	142	99	141	93	283
Healthy diet	57	142	79	141	68	283
Smoking cessation	74	142	92	141	83	283
Obesity	49	142	79	141	64	283
Diabetes	82	142	91	141	86	283
Sexually transmitted infections	63	142	84	141	73	283
Vaccinations	76	142	91	141	83	283
Contraception	56	142	83	141	69	283
Self-treatment of colds/coughing	39	142	60	141	50	283
Social services	19	142	31	141	25	283

Medical equipment

Physicians were asked to indicate which items of medical equipment from a list of 30 they had at their disposal. Fig. 9, Table 29 and Table 30 summarize the state of medical equipment in the practices by region, by urbanization and for GPs/FDs and DTs separately.

Fig. 9 shows the distribution of all items of equipment for both regions. The difference in the availability of medical equipment was small. In Kiev region, eight items were available to (almost) all GPs/FDs (>90%), and in Vinnitsa region, seven items. In addition, 14 items were widely available (to at least three quarters of the physicians) in Kiev region and to 13 in Vinnitsa region. The relatively small difference between locations may point to similar task and diagnostic potential, but there may be room for improvement in both regions. For instance, a quarter of physicians in Vinnitsa region had no emergency kit and a third had no materials to suture wounds, while almost half in Kiev region had no materials to suture wounds and more than half had no urine testing strips. Almost 90% in Kiev region and 80% in Vinnitsa region had no peak flow meter available, and it seems

that patients in both regions usually go elsewhere for ultrasound imaging services. Ultrasound equipment was not widely available, although a large majority of physicians (72% in Kiev region and 86% in Vinnitsa region) indicated that they had laboratory facilities available in their own policlinic or ambulatory (Table 31).

Fig. 9 Available practice equipment (percentage of physicians)

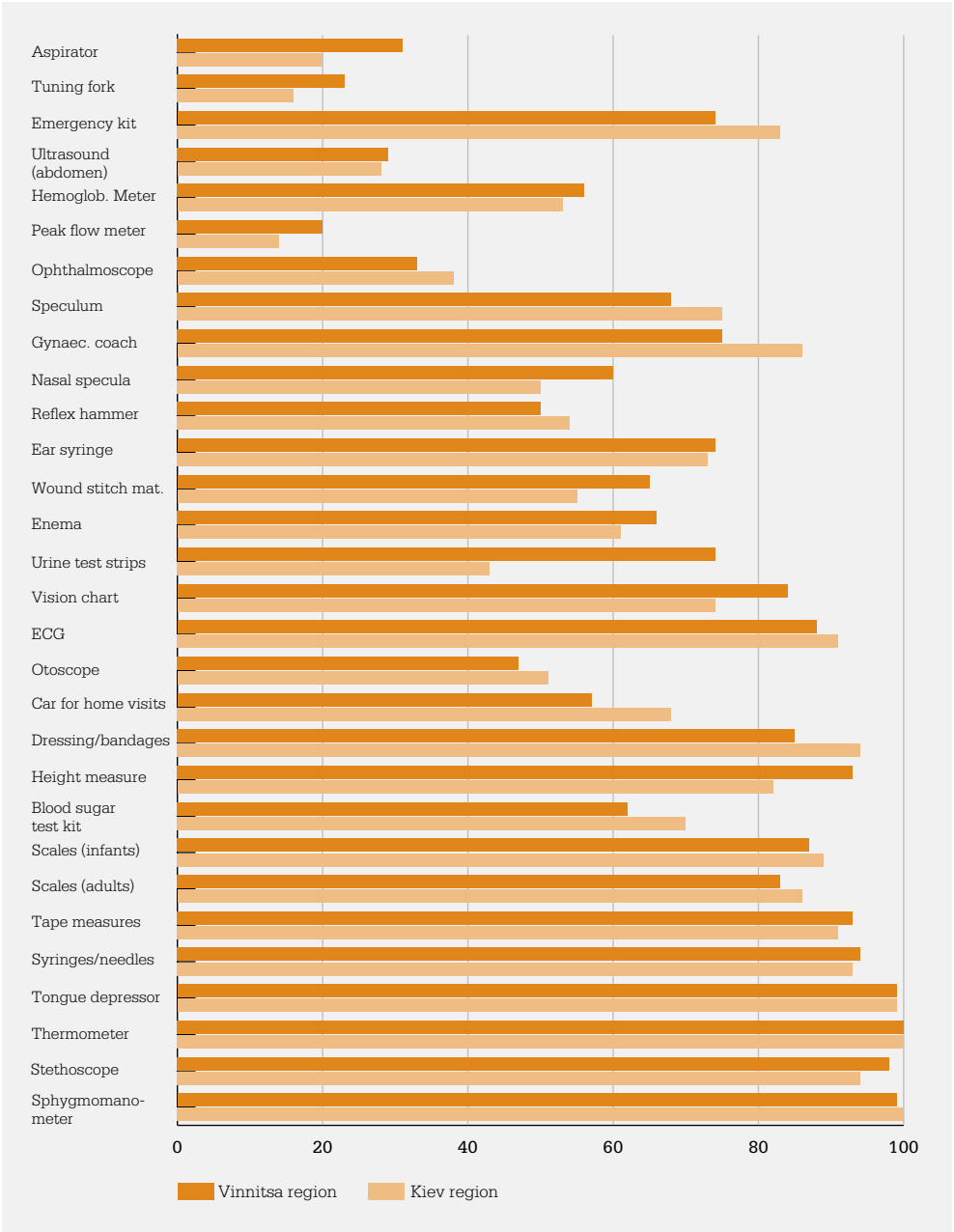


Table 29 shows marginal differences between the regions, with physicians in Vinnitsa region being somewhat better equipped than their colleagues in Kiev region. Overall, the average number of items of equipment per physician from a list of 30 items was between 20 and 21. In Kiev region, 68 out of 142 physicians had no more than 20 items at their disposal; one physician only had three items. In Vinnitsa region, the worst-equipped physician had six items. There were hardly any differences between GPs/FDs and DTs.

Table 29. Number of items of practice equipment available to physicians, by region

Number of items of equipment	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	Total	%	Total	%	Total	%
15 or fewer	22	16	27	19	49	17
16–20	46	32	30	21	76	27
21–25	52	37	50	36	102	36
26–30	22	16	34	24	56	20
TOTAL	**142**	**100**	**141**	**100**	**283**	**100**
Average number of items per physician (from a list of 30) • GPs/FDs • DTs • Total	 20.1 20.9 20.3		 20.7 – 20.7		 20.4 20.9 20.5	

Table 30 shows that rural physicians were better equipped than urban physicians, with averages of 20.9 and 16.6 respectively. Only one urban physician reported being very well equipped (more than 25 items), while half of the respondents answered that they had a poor level of available equipment. Among rural physicians, 22% reported a very high level and only 14% a very poor level of equipment.

Table 30. Number of items of practice equipment available to physicians, by urbanization

Number of items of equipment	Urban (N=27)		Rural (N=256)		Total (N=283)	
	Total	%	Total	%	Total	%
15 or less	13	48	36	14	49	17
16–20	7	26	69	27	76	27
21–25	6	22	96	38	102	36
26–30	1	4	55	22	56	20
TOTAL	**27**	**100**	**256**	**100**	**283**	**100**
Average number of items per physician (from a list of 30)	16.6		20.9		20.5	

Laboratory facilities (Table 31) were available in most practices and were more common than X-ray diagnostic facilities. Almost all physicians had sufficient access to facilities, if not inside, then outside the practice. In Kiev region, 11% of physicians (GPs/FDs and DTs equally) indicated that laboratory facilities were not, or were not sufficiently, available; only 3% of GPs/FDs in Vinnitsa reported such insufficiency. Availability outside the practice was particularly the case for X-ray, where approximately half of the physicians indicated that they had access outside the policlinic or ambulatory. However, 12% of GPs/FDs and DTs in Kiev region and 8% in Vinnitsa region indicated that they had insufficient access to X-ray facilities.

Table 31. Physicians' access to X-ray and laboratory facilities, by region

Type of facility and mode of access	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Availability of *laboratory*						
• Full, in practice						
» GPs/FDs	70	102	86	141	79	243
» DTs	78	40	–	–	78	40
• Full, outside practice						
» GPs/FDs	19	102	11	141	15	243
» DTs	12	40	–	–	12	40
• Not/insufficiently available						
» GPs/FDs	11	102	3	141	6	243
» DTs	10	40	–	–	10	40
Availability of *X-ray*						
• Full, in practice						
» GPs/FDs	31	102	49	141	41	243
» DTs	65	40	–	–	65	40
• Full, outside practice						
» GPs/FDs	56	102	43	141	49	243
» DTs	25	40	–	–	25	40
• Not/insufficiently available						
» GPs/FDs	13	102	8	141	10	243
» DTs	10	40	–	–	10	40

Table 32 shows that physicians in urban practices more often had their own facilities than those in rural practices and that both kinds of facilities, but especially X-ray facilities, were more often insufficiently available in rural areas.

Table 32. Physicians' access to X-ray and laboratory facilities, by urbanization

Type of facility and mode of access	Urban (N=27)		Rural (N=256)		Total (N=283)	
	%	Valid N	%	Valid N	%	Valid N
Availability of *laboratory*						
• Full, in practice	89	27	78	256	79	283
• Full, outside practice	7	27	15	256	14	283
• Not/insufficiently available	4	27	7	256	7	283
Availability of *X-ray*						
• Full, in practice	59	27	43	256	45	283
• Full, outside practice	37	27	46	256	45	283
• Not/insufficiently available	4	27	11	256	10	283

Service delivery

Clinical task profiles

Three elements of the physicians' clinical task profiles can be distinguished:

- the role of the physician as first contact for patients
- the provision of medical–technical procedures
- 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, refer to the description of the methodology in Chapter 1).

The role as first contact for patients
The first-contact role was measured through 18 items related to a variety of problems of men, women and children. Physicians could indicate whether their patients would address them with these problems either "(almost) always", "usually", "occasionally", "seldom/never" or "do not know".

Fig. 10 and, in detail, Table 33 and Table 34 (in Annex 1) provide the results. Percentages refer to physicians who estimated that they would "always" or "usually" be the doctor of first contact. The percentages in brackets refer to those who ticked the answer "occasionally".

Fig. 10 Physicians' role as first contact (score based on 18 items: maximum = 4)

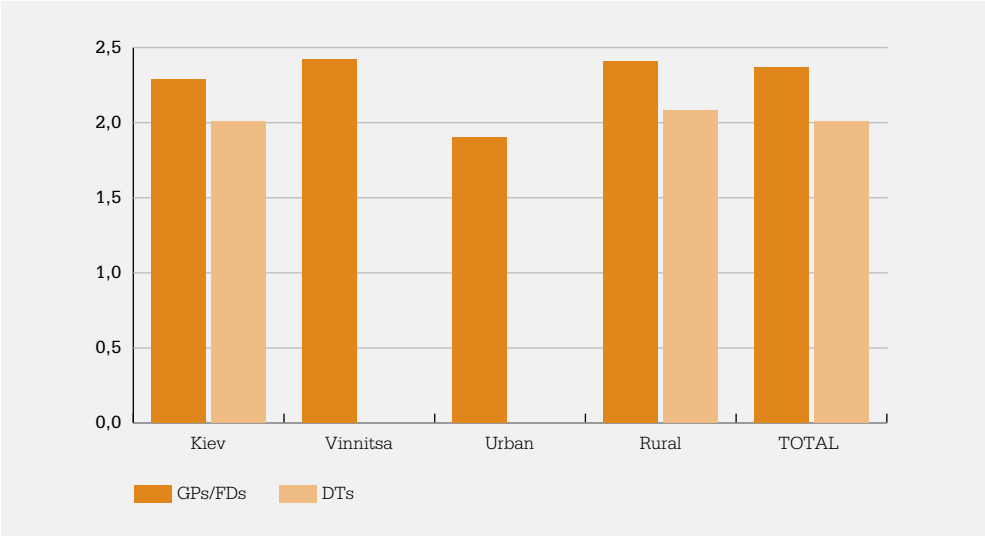


Fig. 10 and Table 33 show that GPs/FDs had a more comprehensive role as the doctor of first contact than DTs, with GPs/FDs in Vinnitsa having a slightly higher score than those in Kiev.

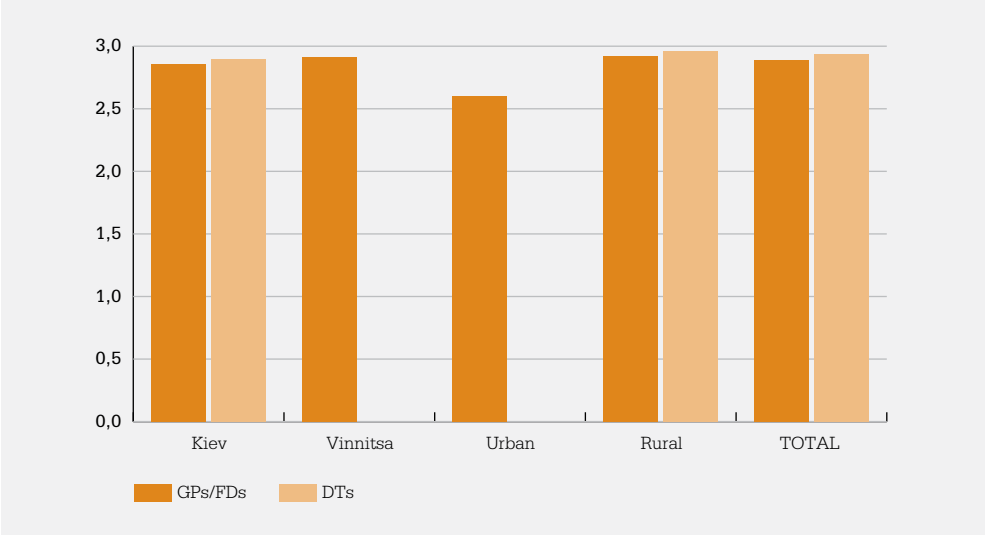
In comparison to DTs, it seems that GPs/FDs were more involved in the first contact with problems of children and women. However, for family planning purposes, people seemed to attend professionals other than GPs/FDs (or DTs). Neither GPs/FDs nor DTs were the obvious first contact for consultations on social and relationship problems and sexual problems.

Fig. 10 and Table 34 show that the difference between physicians in urban and rural practices was much larger than the difference between regions. As the number of urban DTs is very low, only GPs/FDs in urban and rural settings can be compared. Urban GPs/FDs reported being the doctor of first contact for the listed health problems much less frequently than GPs/FDs in rural practices (scores were 1.90 and 2.41 respectively). The

higher involvement of rural GPs/FDs was rather broad: it appears in more than three quarters of the items on the list.

Involvement of primary care physicians in the treatment of diseases
GPs/FDs and DTs were equally involved in the treatment of the 19 diseases summarized in Fig. 11 and detailed in Table 35 and Table 36 (see Annex 1). No differences appeared between both regions.

Fig. 11 Physicians' role in treatment and follow-up of diseases among their patients (score based on 19 items: maximum = 4)

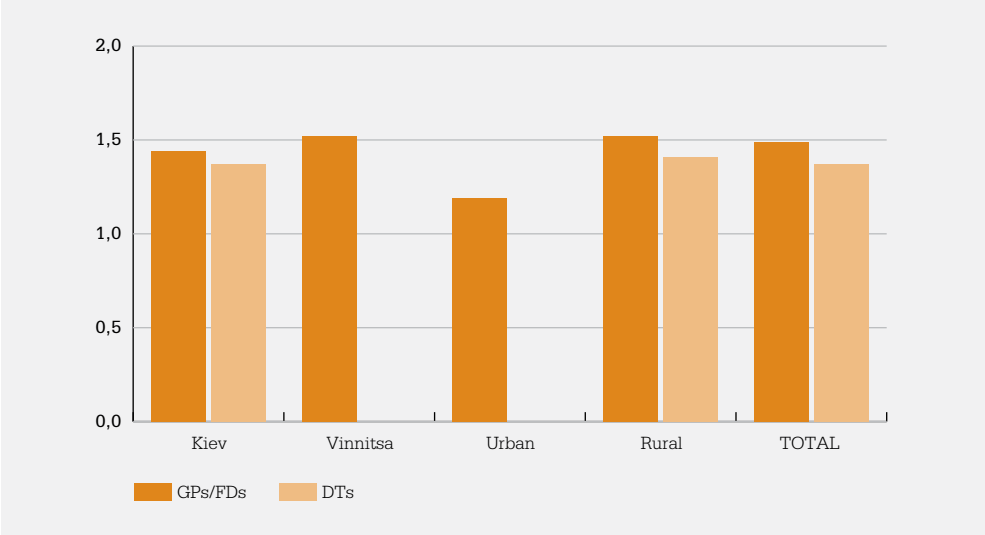


GPs/FDs were most highly involved (80% answering that they were "always" or "usually" involved) with seven conditions in Kiev region and five in Vinnitsa region out of the total of 19 conditions. For DTs, it was seven (Kiev region) and nine (Vinnitsa region) (see Table 35). There was one condition (salpingitis) for which very few DTs and GPs/FDs answered that they were involved in the treatment.

If GPs/FDs in urban and rural areas are compared (Fig. 11 and Table 36), it can be seen that that rural GPs/FDs reported greater involvement in the treatment of the conditions than GPs/FDs in urban policlinics (scores were 2.92 and 2.60 respectively). Differences were visible in practically all treatment items listed in Table 36.

Preventive and medical–technical procedures provided in primary care
As Fig. 12 shows, the role of primary care physicians in delivering medical–technical procedures is very limited (for details, see Table 37 and Table 38 in Annex 1). This is true for DTs as well as GPs/FDs (although the former are slightly more involved). A number of tasks listed in the tables are apparently outside the primary care domain; these probably belong to the domains of gynaecologists, ophthalmologists and otolaryngologists.

Fig. 12 Physicians' involvement in the provision of medical–technical procedures (score based on 16 items: maximum = 4)



Clearly, the delivery of medical–technical procedures is related to the availability of medical equipment. However, cause and effect cannot be determined on the basis of the available information.

Differences between urban and rural GPs/FDs in the delivery of medical–technical procedures were larger than those between regions. Although the overall involvement was low, rural GPs/FDs more often answered that they were involved in these procedures and services than urban physicians.

GPs/FDs and DTs in both regions claimed they were reasonably well involved in most activities for the patient groups/health risks described (Table 39). Overall, around two thirds of the physicians reported involvement in the activities. Involvement was above this average with rehabilitative care, TB screening and influenza vaccination. The involvement of GPs/FDs (in contrast to DTs) was higher with school health care, with DTs more involved than GPs/FDs in screening for sexually transmitted infections (STIs) and HIV/Aids. Less than half of the physicians were involved in screening for cervical cancer.

Table 39. Involvement of physicians in activities for specific groups

Physician involved in:	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	Valid N	% GPs/ FDs	% DTs	Valid N
screening for STIs	43	55	102/40	43	141	43	55	243/40
Screening for HIV/Aids	53	70	102/40	40	141	46	70	243/40
TB screening	80	75	102/40	74	141	77	75	243/40
influenza vaccination programme for high-risk groups	68	73	102/40	82	141	76	73	243/40
rehabilitative care	85	93	102/40	90	141	88	93	243/40
school health care	78	53	102/40	82	141	80	53	243/40
cervical cancer screening	42	48	102/40	47	141	45	48	243/40
breast cancer screening	66	68	102/40	67	141	67	68	243/40
TOTAL coverage for "specific groups" (range 0%–100%)	**64.3%**	**66.9%**		**65.6%**		**65.3%**	**66.9%**	

Mother and child care/reproductive health

Care for mothers and children and reproductive health were generally seen as tasks for primary care physicians, as it represents care aimed at basically healthy people. Table 40 shows to what extent GPs/FDs and DTs were involved in these services.

Table 40. Services provided by physicians to all or most mothers and children, by region

Physician providing the following services to all or most	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	Valid N	% GPs/ FDs	% DTs	Valid N
Family planning and contraception	38	30	102/40	57	141	49	30	243/40
Routine antenatal care	59	53	102/40	78	141	70	53	243/40
Normal immunizations to children under four years	72	38	102/40	89	141	82	38	243/40
Routine paediatric surveillance (until four years)	67	35	102/40	87	141	79	35	243/40

GPs/FDs were more involved in each of the four routine mother and child services described than DTs. The difference was especially large with paediatric surveillance and routine immunization of children. Compared to the other services, family planning was not well covered. GPs/FDs in Vinnitsa generally reported more involvement in these services than those in Kiev.

When urbanization is taken into account (Table 41), rural physicians, especially GPs/FDs, were much more involved in the provision of these services to mothers and their children than urban physicians.

Table 41. Services provided by physicians to all or most mothers and children, by urbanization

Physician providing the following services to all or most	Urban (N=27)			Rural (N=256)			Total (N=283)		
	% GPs/FDs	% DTs	Valid N	% GPs/FDs	% DTs	Valid N	% GPs/FDs	% DTs	Valid N
Family planning and contraception	29	(33)	24/3	52	32	219/37	49	30	243/40
Routine antenatal care	58	(33)	24/3	71	54	219/37	70	53	243/40
Normal immunizations to children under four years	50	(33)	24/3	85	38	219/37	82	38	243/40
Routine paediatric surveillance (until four years)	50	(33)	24/3	82	35	219/37	79	35	243/40

Table 42 and Table 43 show the percentage of physicians actively involved in providing information and counselling on reproductive health. These data show that GPs/FDs were clearly more involved in these activities than DTs.

Table 42 shows that almost two thirds of GPs/FDs gave information to adolescents on STIs and that half reported giving sex education to schoolchildren. Differences between the regions were modest. GPs/FDs in Vinnitsa were more involved in sex education in schools and providing information to men on contraception than GPs/FDs in Kiev region.

Table 42. Physicians involved in routine provision of reproductive health, by region

Physician (or nurse) involved in providing the following services	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/FDs	% DTs	Valid N	% GPs/FDs	Valid N	% GPs/FDs	% DTs	Valid N
Sex education to schoolchildren	45	20	102/40	57	141	52	20	243/40
Prevention of unwanted pregnancies among adolescents (15–24)	38	18	102/40	38	141	38	18	243/40
Giving information on STI to adolescents	61	30	102/40	64	141	63	30	243/40
Giving information or counselling on contraception to men	38	20	102/40	50	141	45	20	243/40

Comparison between GPs/FDs in rural and urban practices (Table 43) shows that rural GPs/FDs were much more involved in the provision of services related to reproductive

health than those working in urban facilities. The largest difference was in relation to giving information to men on contraception, which was reported as being offered by half of the rural GPs/FDs and just one in an urban practice.

Table 43. Physicians involved in routine provision of reproductive health, by urbanization

Physician (or nurse) involved in providing the following services	Urban (N=27)			Rural (N=256)			Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	% DTs	Valid N
Sex education to schoolchildren	33	(33)	24/3	54	19	219/37	52	20	243/40
Prevention of unwanted pregnancies among adolescents (15–24)	29	–	24/3	39	19	219/37	38	18	243/40
Giving information on STI to adolescents	29	(33)	24/3	66	30	219/37	63	30	243/40
Giving information or counselling on contraception to men	4	–	24/3	49	22	219/37	45	20	243/40

Table 44 and Table 45 show how responding physicians answered the question about whether they were trained for reproductive health tasks. Between one third and a half of the GPs/FDs reported they were trained for this. In contrast, few DTs reported so (10%–20%).

Table 44. Physicians' training status with regard to reproductive health, by region

Physicians trained in following aspects of reproductive health	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	Valid N	% GPs/ FDs	% DTs	Valid N
How to give sex education to schoolchildren	30	10	102/40	36	141	33	10	243/40
How to prevent unwanted pregnancies among adolescents (15–24)	34	20	102/40	40	141	38	20	243/40
How to provide information on STI	40	15	102/40	40	141	40	15	243/40
How to provide information on contraception	35	15	102/40	47	141	42	15	243/40

Training status for reproductive health was better among rural GPs/FDs than urban (Table 45). Around 40% of GPs/FDs working in rural areas indicated that they were trained for these reproductive health activities, while the rates among urban GPs/FDs varied between 17% and 29%.

Table 45. Physicians' training status with regard to reproductive health, by urbanization

Physicians trained in following aspects of reproductive health	Urban (N=27)			Rural (N=256)			Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	% DTs	Valid N
How to give sex education to school-children	17	(33)	24/3	35	8	219/37	33	10	243 /40
How to prevent unwanted pregnancies among adolescents (15–24)	21	(33)	24/3	40	19	219/37	38	20	243 /40
How to provide information on STI	25	(67)	24/3	42	11	219/37	40	15	243 /40
How to provide information on contraception	29	(33)	24/3	43	14	219/37	42	15	243 /40

Tuberculosis care

Table 46 and Table 47 present data reflecting the involvement of physicians in activities related to the identification of, and care for, tuberculosis patients. On average, DTs reported having identified well over two new cases of TB, while GPs/FDs reported 1.7 new cases. GPs/FDs (like DTs) in Kiev region had a higher average number of newly identified cases of TB than those in Vinnitsa (2.24 and 1.32 respectively). This difference was also true for the number of supervised households where a new case of TB had recently been identified: 2.58 in Vinnitsa and 4.78 in Kiev. However, the reported number of patients receiving follow-up care from the GP/FDwas higher in Vinnitsa than in Kiev. Consequently, although the number of newly detected patients with TB in Vinnitsa was lower, the involvement of primary care and GPs/FDs in the follow-up treatment (after the intensive phase) seemed to be higher.

Table 46. GPs'/FDs' and DTs' involvement in tuberculosis care, by region

Aspects of tuberculosis care	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	Mean	Valid N	Mean	Valid N	Mean	Valid N
Number of new cases of TB in 2008						
• GPs/FDs	2.24	78	1.32	118	1.69	196
• DTs	2.10	21	–	–	2.10	21
Number of households supervised with recently revealed TB						
• GPs/FDs	4.78	74	2.58	114	3.45	188
• DTs	3.55	22	–	–	3.55	22
Number of patients receiving follow-up TB treatment						
• GPs/FDs	4.35	65	5.51	99	5.05	164
• DTs	6.94	17	–	–	6.94	17

Separate examination of urban and rural practices is difficult because of the small number of observations (Table 47). Rural physicians tend to report a higher TB detection rate and more households with new TB under their supervision than their urban colleagues.

Table 47. Physicians' involvement in tuberculosis care, by region and urbanization

Aspects of tuberculosis care	Urban (N=27)		Rural (N=256)		Total (N=283)	
	Mean	Valid N	Mean	Valid N	Mean	Valid N
Number of new cases of TB in 2007						
• urban physicians (GPs/FDs)	2.50	4	0.64	11	1.13	15
• rural physicians						
» GPs/FDs	2.23	74	1.39	107	1.73	181
» DTs	2.10	20	–	–	2.10	20
Number of households with recently revealed TB supervised						
• urban physicians (GPs/FDs)	2.25	4	2.00	10	2.07	14
• rural physicians						
» GPs/FDs	4.93	70	2.63	104	3.56	174
» DTs	3.48	21	–	–	3.48	21
Number of patients receiving follow-up TB treatment						
• urban physicians (GPs/FDs)	2.50	2	11.64	11	10.23	13
• rural physicians						
» GPs/FDs	4.41	63	4.74	88	4.60	151
» DTs	6.33	15	–	–	6.33	15

An important finding is that about one quarter of the physicians had no information about the number of tuberculosis patients in their practice population.

Table 48 and Table 49 show the proportion of physicians trained in aspects of TB care. Although the differences were small, DTs were more likely to be trained in defined TB tasks than GPs/FDs. The training situation of GPs/FDs for TB tasks was similar in both regions: percentages per task varied between 53% and 61%.

Table 48. Physicians' training status with regard to tuberculosis care, by region

Physicians trained in following aspects of TB care	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	Valid N	% GPs/ FDs	% DTs	Valid N
How to give information to the general population on TB and prevention of TB	57	60	102/40	58	141	58	60	243/40
The procedure to follow in case of suspicion of TB	61	68	102/40	55	141	58	68	243/40
How to counsel TB patients	55	65	102/40	53	141	54	65	243/40
How to apply the directly observed treatment of TB patients	58	60	102/40	55	141	56	60	243/40

GPs/FDs in rural areas had almost twice as often received training for different aspects of TB care as GPs/FDs in urban areas (Table 49).

Table 49. Physician's training status with regard to tuberculosis care, by urbanization

Physicians trained in following aspects of TB care	Urban (N=27)			Rural (N=256)			Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	% DTs	Valid N
How to give information to the general population on TB and prevention of TB	33	(67)	24/3	60	61	219/37	58	60	243/40
The procedure to follow in case of suspicion of TB	33	(67)	24/3	60	69	219/37	58	68	243/40
How to counsel TB patients	25	(67)	24/3	57	67	219/37	54	65	243/40
How to apply the directly observed treatment of TB patients	25	(67)	24/3	60	61	219/37	56	60	243/40

A majority of physicians in both regions were involved in three out of the four defined TB-related activities (Table 50). Only involvement in directly observed treatment was lower, with Vinnitsa region being even lower than Kiev region.

Table 50. Physicians involved in TB-related activities, by region

Physician (or nurse) involved in TB-related activities	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	Valid N	% GPs/ FDs	% DTs	Valid N
Information and prevention of TB to the population	80	70	102/40	74	141	77	70	243/40
Identification/early diagnosis of TB cases	88	83	102/40	84	141	86	83	243/40
Monitoring and follow-up of groups at risk	77	63	102/40	71	141	73	63	243/40
Directly observed treatment of patients with TB	49	45	102/40	29	141	37	45	243/40

A similar picture emerged in differentiating between urban and rural physicians (Table 51), with little difference in their involvement in the first three defined tasks. Urban GPs/FDs were less involved in directly observed treatment than rural GPs/FDs.

Table 51. Physicians involved in TB-related activities, by urbanization

Physician (or nurse) involved in providing the following services	Urban (N=27)			Rural (N=256)			Total (N=283)		
	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	% DTs	Valid N	% GPs/ FDs	% DTs	Valid N
Information and prevention of TB to the population	79	(67)	24/3	76	70	219/37	77	70	243/40
Identification/early diagnosis of TB cases	83	(100)	24/3	86	81	219/37	86	83	243/40
Monitoring and follow-up of groups at risk	75	(67)	24/3	73	62	219/37	73	63	243/40
Directly observed treatment of patients with TB	21	(33)	24/3	39	46	219/37	37	45	243/40

Two out of three of all physicians in both regions had received new information materials on TB, such as posters and leaflets, during the 12 months prior to completing the questionnaire (Table 52). When differentiated between GPs/FDs and DTs and between urban and rural physicians, it appears that more GPs/FDs and more rural physicians received new materials than DTs and urban physicians.

Table 52. Physicians who received new information materials on TB, by region

Physicians who received new information materials on TB	Kiev region (N=142)		Vinnitsa region (N=141)		Total (N=283)	
	Total	%	Total	%	Total	%
All physicians	81	57	108	77	189	67
GPs/FDs	60	69	108	77	168	69
DTs	21	53	-	-	21	53
Urban physicians	3	(30)	8	47	11	41
Rural physicians	78	59	100	81	178	70

5. PATIENTS' PERSPECTIVES OF PRIMARY CARE: SURVEY RESULTS

A number of patients in each of the practices of the physicians who participated in the physicians' survey were asked to respond to a questionnaire dealing with patients' perspectives. The results described here are therefore based on the experiences and opinions of patients.

Fieldworkers visited the practices and systematically asked every attending patient for his or her cooperation until the target of 15 completed questionnaires was achieved. Information from the patient survey consequently applied to the same practices as the information from the survey among GPs/FDs and DTs in the Kiev and the Vinnitsa regions.

Further details of the approach used can be found in Chapter 1. Reference is made in this chapter to the health systems functions of the framework which were set out in Chapter 1.

Respondents' characteristics

As Table 53 shows, 2115 patients responded to the patient survey: 1050 respondents in Kiev region and 1065 in Vinnitsa region. Female patients were in the majority: in both regions, almost two thirds of the completed questionnaires were filled in by women. Eighty-six per cent of the respondents in both regions were from rural practices.

Table 53. Gender distribution of patients in the Kiev and Vinnitsa regions, by urbanization

Physicians who received new information materials on TB		Kiev region (N=142)			Vinnitsa region (N=141)		
		Urban N (%)	Rural* N (%)	Total N (%)	Urban N (%)	Rural* N (%)	Total N (%)
Gender	Male	57 (38)	337 (37)	394 (38)	47 (31)	329 (36)	376 (35)
	Female	93 (62)	563 (63)	656 (62)	103 (69)	586 (64)	689 (65)
Total		**150 (14)**	**900 (86)**	**1 050 (100)**	**150 (14)**	**915 (86)**	**1 065 (100)**

*Including small towns and rural areas

Table 54 shows that the age distribution of respondents in both regions was very similar, with respondents in Kiev region slightly younger. Eighteen per cent of respondents in Kiev region were aged 30 years or younger. In Vinnitsa region, 13% belonged to this age group. Both regions had an almost similar number of respondents over 50 years (44% in Kiev region and 45% in Vinnitsa region).

In both regions, about one third of patients who filled in the questionnaire were in employment, 27% were retired, and a few were unemployed (7% in Kiev region and 8% in Vinnitsa region) or unable to work (3% in both regions). There were more schoolchildren and more respondents answering that their occupation was to "look after a family" in Kiev region.

Regional differences in the living situation of respondents were small. More respondents were living with a spouse or in a family with children in Vinnitsa region (72%) than in Kiev region (65%). Nineteen per cent of respondents in Kiev region were living alone, against 16% in Vinnitsa region.

Table 54. Patients' age, occupational background and living situation

Patients' backgrounds	Kiev region (N=1 050)		Vinnitsa region (N=1 065)	
	Total	%	Total	%
Age				
• up to 20 years	31	3	25	2
• 21–30	154	15	123	11
• 31–40	185	17	189	18
• 41–50	226	21	254	24
• 51–60	217	21	221	21
• over 60	237	23	253	24
Total	**1 050**	**100**	**1 065**	**100**
Occupation				
• in school	49	5	32	3
• unemployed/looking for a job	78	7	85	8
• unable to work (disability)	38	3	33	3
• looking after family	62	6	48	5
• employee	375	36	327	31
• self-employed	61	6	46	4
• retired	279	27	286	27
• other	108	10	206	19
Total	**1 050**	**100**	**1 063**	**100**
Living situation				
• alone	202	19	168	16
• with parents	84	8	65	6
• with husband/wife	248	24	318	30
• with family (including children)	434	41	449	42
• other	82	8	65	6
Total	**1 050**	**100**	**1 065**	**100**

Accessibility of care

Financial access

Most of the primary care services listed in Table 55 appeared to be available free of charge. There was one important and one minor exception. A large majority of respondents in both regions – 88% in Kiev region and 82% in Vinnitsa region – indicated that they had to pay for medicines or injections prescribed by primary care physicians. Few respondents (15% in Kiev region and 14% in Vinnitsa region) reported that they also had to pay for a visit to a specialist after referral by their GP/FD or DT.

Table 55. Services for which (co)payment from patients was required

Type of service	Kiev region (N=1 050)		Vinnitsa region (N=1 065)	
	Total	%	Total	%
Visit to your GP/FD or DT	70	7	48	5
Medicines or injections prescribed by your GP/FD or DT	923	88	875	82
A visit to a specialist after referral by your GP/FD or DT	152	15	149	14
Home visit by your GP/FD or DT	83	8	89	8
Regular check-up of baby or young child	75	7	39	4

Patients reported that private payments for medicines had proved a disincentive for them to visit, or to visit soon, their doctor (Table 56). Twenty per cent of patients in Kiev region had made such decisions in the past. In Vinnitsa region, this was true of 17% of respondents.

Table 56. Patients reporting obstacles to use of services related to copayment and availability of medicines

Decision taken in past year	Kiev region (N=1 050)		Vinnitsa region (N=1 065)	
	Total	%	Total	%
Not to visit or delay a visit because I could not pay for the medicines	210	20	177	17

Geographic access and responsiveness

This section relates to service aspects of the primary care centre or policlinic. The following aspects are considered: attainability and accessibility; opening hours and convenience; and patient friendliness.

As Table 57 and Fig. 13 show, on average, one in three patients in both regions could reach their preferred primary care facilities and a hospital within 20 minutes. In Kiev region, however, most of the patients needed to travel between 20 and 40 minutes; this was also true for reaching the hospital and dentist in Vinnitsa region. Travel times of more than 40 minutes were frequently reported, especially to the dentist (24% in both regions) and to hospital (36% in Kiev region and 33% in Vinnitsa region). Twenty per cent of patients in Kiev region and 28% of those in Vinnitsa region remained under the 20-minute limit for a visit to a hospital. On the whole, patients in Kiev region reported longer travel times to all listed facilities compared to patients in Vinnitsa region.

Table 57. Patients' travel time to primary care providers

Provider and distance	Kiev region (N=1 050)		Vinnitsa region (N=1 065)	
	Total	%	Total	%
GP/FD or DT				
• up to 20 minutes	399	38	492	46
• 20–40 minutes	538	51	398	37
• 40–60 minutes	87	8	127	12
• more than one hour	21	2	44	4
• don't know	5	1	4	1
Total	**1 050**	**100**	**1 065**	**100**
Pharmacist				
• up to 20 minutes	400	38	476	45
• 20–40 minutes	475	45	402	38
• 40–60 minutes	93	9	129	12
• more than one hour	27	3	45	4
• don't know	55	5	13	1
Total	**1 050**	**100**	**1 065**	**100**
Dentist				
• up to 20 minutes	244	23	396	37
• 20–40 minutes	464	44	388	36
• 40–60 minutes	152	15	169	16
• more than one hour	95	9	86	8
• don't know	95	9	26	2
Total	**1 050**	**100**	**1 065**	**100**
Hospital				
• up to 20 minutes	215	20	298	28
• 20–40 minutes	397	38	398	37
• 40–60 minutes	152	15	249	23
• more than one hour	218	21	101	10
• don't know	68	6	19	2
Total	**1 050**	**100**	**1 065**	**100**

Fig. 13 Patients with travel times to health care facilities of up to 20 minutes (%)

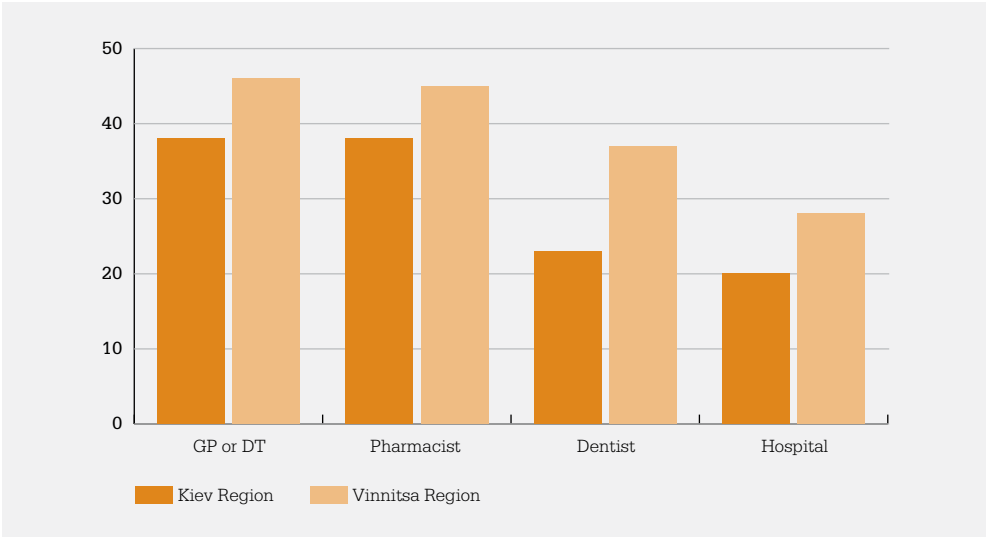


Table 58 presents responses to a list of 15 items which, taken together, indicate patients' experiences and opinions about service aspects of their policlinic or ambulatory, such as accessibility and convenience of the premises, treatment by practice staff, opening hours and availability of service providers. Possible answers were: "Yes, I agree"; "I agree partially"; "I do not agree"; and "I don't know". Percentages in the table refer to the number answering "Yes, I agree".

Table 58. Perceptions of quality of the ambulatory/policlinic, by region

Patients agreeing with following statements	Kiev region (N=1 050)		Vinnitsa region (N=1 065)		Total (N=2 115)	
	Total	%	Total	%	Total	%
I can easily reach the policlinic or ambulatory by public transport	562	54	708	67	1 270	60
The practice/centre is easily accessible for disabled people and wheelchair users	350	33	596	56	946	45
The waiting room for patients is convenient	498	47	633	59	1 131	54
My policlinic or ambulatory has a web site	32	3	47	4	79	4
In my policlinic or ambulatory, there is a complaint mailbox that I can use to submit a complaint if I am not satisfied	404	39	479	45	883	42
When the practice is open and I want to visit a GP/FD or DT urgently, it is possible to have the visit the same day	780	74	979	92	1 759	83
During opening hours it is easy to get a doctor on the telephone for advice	565	54	807	76	1 372	65
When I visit the practice there is always at least one doctor available	726	69	954	90	1 680	79
When the policlinic or ambulatory is closed, there is a telephone number to call when I get sick	576	55	817	77	1 393	66
In my policlinic or ambulatory, it is possible to visit a GP/FD or DT on Saturdays or Sundays	509	49	498	47	1 007	48
In my policlinic or ambulatory, it is possible to visit a GP/FD or DT after 18.00 (at least once per week)	269	26	298	28	567	27
I am satisfied about current opening hours of the practice	711	68	884	83	1 595	75
Staff at the reception desk are kind and helpful	726	69	855	80	1 581	75
Making an appointment with my GP/FD or DT takes too much time	127	12	193	18	320	15
I need to wait too long in the waiting room to see the doctor	205	20	205	19	410	19

Half of the patients in Kiev region and two thirds of those in Vinnitsa region indicated that they could easily reach the policlinic or ambulatory by public transport. Responses around physical access to premises for disabled people or those using a wheelchair were less positive. There seems to be much ground for improvement in this area in Kiev region, with only 33% of respondents answering that the policlinic or ambulatory was easily accessible for these groups. The situation in Vinnitsa region, where 56% stated that access by wheelchair was good, was clearly better, but could still be improved.

Patients in Vinnitsa region were moderately positive about the quality of the waiting room, but more than 50% of patients in Kiev region could not agree that the waiting room was convenient.

Having a web site as a service to the centre's patients was probably not relevant to most respondents. Asked about the existence of such a web site, 63% in both regions answered that they did not know (this finding is not included in Table 58). Answers from other respondents suggested only rare use of web sites for communication and information by patients.

Only a minority of patients in both regions (39% in Kiev region and 45% in Vinnitsa region) were aware of the existence of a complaint mailbox in their policlinic or ambulatory.
In general, respondents in Vinnitsa region had more positive experiences with opening hours and getting access to doctors, either in person or by telephone, than respondents in Kiev region. A large majority in Vinnitsa region and a moderate majority in Kiev region felt that a physician was always available during opening hours, and that it was possible to visit a physician the same day if necessary. Seventy-seven per cent of respondents in Vinnitsa region, but only 55% in Kiev region, answered that there was a telephone number for patients to use if they fell ill outside opening hours.

Visiting a GP/FD or DT on a weekend day was reported as being possible by 49% of patients in Kiev region and 47% in Vinnitsa region. The opportunity to visit a physician in the evening was even rarer: only 26% in Kiev region and 28% in Vinnitsa region reported this as a possibility. Despite these limitations, patients were still moderately satisfied with current opening hours. Patients in Kiev region were less satisfied (68%) than those in Vinnitsa region (83%).

Treatment at the reception desk was widely appreciated. Eighty per cent of respondents in Vinnitsa region and 69% in Kiev region agreed that staff at the reception desk were kind and helpful. This still leaves room for improvement, particularly in Kiev region. Relatively small groups of respondents agreed that making an appointment with a physician took too long, and one in five patients answered that the time they had to spend in the waiting room was too long.

Table 59 shows the same results differentiated by urbanization. The differences are smaller than those between the regions. Respondents in urban areas were slightly more positive or, in some cases, equally positive on all listed service aspects of their policlinic or ambulatory.

Table 59. Perceptions of quality of the ambulatory/policlinic, by urbanization

Patients agreeing with following statements	Urban (N=300)		Rural (N=1 815)		Total (N=2 115)	
	Total	%	Total	%	Total	%
I can easily reach the policlinic or ambulatory by public transport	192	64	1 078	59	1 270	60
The practice/centre is easily accessible for disabled people and wheelchair users	153	51	793	44	946	45
The waiting room for patients is convenient	163	54	968	53	1 131	54
My policlinic or ambulatory has a web site	7	2	72	4	79	4
In my policlinic or ambulatory, there is a complaint mailbox that I can use to submit a complaint if I am not satisfied	140	47	743	41	883	42
When the practice is open and I want to visit a GP/FD or DT urgently, it is possible to have the visit the same day	254	85	1 505	83	1 759	83
During opening hours it is easy to get a doctor on the telephone for advice	195	65	1 177	65	1 372	65
When I visit the practice there is always at least one doctor available	257	86	1 423	78	1 680	79
When the policlinic or ambulatory is closed, there is a telephone number to call when I get sick	203	68	1 190	66	1 393	66
In my policlinic or ambulatory, it is possible to visit a GP/FD or DT on Saturdays or Sundays	164	55	843	46	1 007	48
In my policlinic or ambulatory, it is possible to visit a GP/FD or DT after 18.00 (at least once per week)	99	33	468	26	567	27
I am satisfied about current opening hours of the practice	256	85	1 339	74	1 595	75
Staff at the reception desk are kind and helpful	236	79	1 345	74	1 581	75
Making an appointment with my GP/FD or DT takes too much time	46	15	274	15	320	15
I need to wait too long in the waiting room to see the doctor	44	15	366	20	410	19

Continuity of care

Longitudinal and interpersonal continuity

On average, patients in Kiev region visited their primary care physician six times a year, a higher rate than in than in the Vinnitsa region, with almost four visits per patient per year (Table 60).

Table 60. Patients' frequency of visits to their primary care physician and nurse during the previous 12 months

Visit frequency past 12 months	Kiev region (N=1 050)		Vinnitsa region (N=1 065)		Total (N=2 115)	
	Total	%	Total	%	Total	%
Doctor						
• no visits	22	2	13	1	35	2
• 1–3 visits	497	47	632	59	1 129	54
• 4–6 visits	259	25	289	27	548	26
• 7–9 visit	61	6	51	5	112	5
• 10–12 visits	83	8	45	4	128	6
• 13 or more visits	124	12	27	3	151	7
Total doctor	**1 046**	**100**	**1 057**	**100**	**2 103**	**100**
Average annual visit frequency with physician	6.0		3.8		4.9	
Nurse						
• no visits	348	33	156	15	504	24
• 1–3 visits	382	36	601	56	983	46
• 4–6 visits	166	16	192	18	358	17
• 7–9 visit	31	3	44	4	75	4
• 10–12 visits	84	8	42	4	126	6
• 13 or more visits	38	4	30	3	68	3
Total nurse	**1 049**	**100**	**1 065**	**100**	**2 114**	**100**
Average annual visit frequency with nurse	1.3		1.4		1.3	

The visiting pattern in both regions was largely identical, and not having seen the doctor during the past year was exceptional. Around 53% reported one to three visits and a quarter of the patients answered that they had visited the doctor four to six times in the previous year. The category of frequent attendees, with more than 12 visits, was larger in Kiev region (12%) than in Vinnitsa region (3%).

Patients had visited a nurse on average only once in the previous year. Thirty-three per cent in Kiev region and 15% in Vinnitsa region answered that they had not visited a nurse in the previous year. Unlike the visits to physicians, the category reporting more than 12 visits was similarly low in both regions.

The focus of this section is on the perceived functioning of the primary care physician in personal relationships with patients. Important aspects in this evaluation are:

- communication between the doctor and the patient
- how patients perceive the doctor's competence
- the patients' trust and confidence in the doctor.

Fundamental to this evaluation are the conditions for a relationship between doctor and patient, especially in terms of personal continuity and time available to patients in consultations. Table 61 and Table 62 present information on some key conditions for continuity:

- the length of time patients have been registered with their current doctor

- whether they normally see the same physician each time they visit the centre
- the usual length of a consultation.

Table 61. Patients' experiences with their doctor, by region

Statements	Kiev region (N=1 050)		Vinnitsa region (N=1 065)		Total (N=2 115)	
	Total	%	Total	%	Total	%
Length of time being a patient with this GP/FD or DT						
• less than one year	52	5	108	10	160	8
• 1–3 years	216	21	234	22	450	21
• more than 3 years	613	58	652	61	1 265	60
• I don't know	169	16	69	7	238	11
If I visit a GP/FD or DT, I see the same doctor at each visit	760	72	869	82	1 629	77
Estimated duration of a consultation						
• up to 5 minutes	9	1	6	1	15	1
• 6–10 minutes	94	9	66	6	160	8
• 11–15 minutes	310	29	215	20	525	25
• more than 15 minutes	637	61	778	73	1 415	66
Average length of a consultation (in minutes)	21.0		23.2		22.1	
Estimated time between making an appointment and visiting the GP/FD or DT						
• the visit is the same day	706	67	881	83	1 587	75
• I have to wait one day	41	4	10	1	51	2
• 2–3 days	8	1	3	0	11	1
• more than 3 days	4	0	2	0	6	0
• I never make appointments	252	24	164	15	416	20
• I don't know	39	4	5	1	44	2
My GP/FD or DT knows my personal situation (for instance, work or home situation)	573	55	808	76	1 381	65
My GP/FD or DT knows the problems and illnesses that I have had in the past (from my medical records)	738	70	885	83	1 623	77
My GP/FD or DT takes sufficient time to talk to me	854	81	965	91	1 819	86
My GP/FD or DT listens well to me	863	82	1 013	95	1 876	89
My GP/FD or DT not just deals with medical problems but can also help with personal problems and worries	398	38	692	65	1 090	52
My GP/FD or DT gives clear explanation about my illnesses and prescribed medicines	801	76	972	91	1 773	84
My GP/FD or DT would visit me at home if I would ask for it	869	83	1 028	97	1 897	90
After a visit to my GP/FD or DT, I feel able to cope better with my health problem/illness	604	58	899	84	1 503	71
When I have a new health problem, I go to my GP/FD or DT before going to a medical specialist	725	69	937	88	1 662	79
My policlinic or ambulatory has sufficient medical equipment	182	17	366	34	548	26

Table 62. Patients' experiences with their doctor, by urbanization

Statements	Urban (N=300)		Rural (N=1 815)		Total (N=2 115)	
	Total	%	Total	%	Total	%
Length of time being a patient with this GP/FD or DT						
• less than one year	37	12	123	7	160	8
• 1–3 years	83	28	367	20	450	21
• more than 3 years	139	47	1 126	62	1 265	60
• I don't know	40	13	198	11	238	11
If I visit a GP/FD or DT, I see the same doctor at each visit	242	81	1 387	76	1 629	77
Estimated duration of a consultation						
• up to 5 minutes	3	1	12	1	15	1
• 6–10 minutes	17	6	143	8	160	8
• 11–15 minutes	83	28	442	24	525	25
• more than 15 minutes	197	65	1 218	67	1 415	67
Average length of a consultation (in minutes)	22.2		22.1		22.1	
Estimated time between making an appointment and visiting the GP/FD or DT						
• the visit is the same day	206	69	1 381	76	1 587	75
• I have to wait one day	28	9	23	1	51	2
• 2–3 days	2	1	9	1	11	1
• more than 3 days	0	0	6	0	6	0
• I never make appointments	55	18	361	20	416	20
• I don't know	9	3	35	2	44	2
My GP/FD or DT knows my personal situation (for instance, work or home situation)	187	62	1 194	66	1 381	65
My GP/FD or DT knows the problems and illnesses that I have had in the past (from my medical records)	228	76	1 395	77	1 623	77
My GP/FD or DT takes sufficient time to talk to me	270	90	1 549	85	1 819	86
My GP/FD or DT listens well to me	282	94	1 594	88	1 876	89
My GP/FD or DT not just deals with medical problems but can also help with personal problems and worries	157	52	933	51	1 090	52
My GP/FD or DT gives clear explanation about my illnesses and prescribed medicines	241	80	1 532	84	1 773	84
My GP/FD or DT would visit me at home if I would ask for it	286	95	1 611	89	1 897	90
After a visit to my GP/FD or DT, I feel able to cope better with my health problem/illness	221	74	1 282	71	1 503	71
When I have a new health problem, I go to my GP/FD or DT before going to a medical specialist	240	80	1 422	78	1 662	79
My policlinic or ambulatory has sufficient medical equipment	71	24	477	26	548	26

The conditions to support a continuous doctor–patient relationship were good, and practice populations seemed to be relatively stable. Fifty-eight per cent of respondents in Kiev region and 61% in Vinnitsa region had been with the same doctor for more than three years (Table 61). Five per cent of those in Kiev region and 10% in Vinnitsa region

had been registered with their current doctor for a year or less. For the large majority of patients, "being registered with a physician" meant that they expected to see this particular doctor every time they visited the primary care centre or policlinic, but 18%–28% of patients noted that this was not always the case.

The consultation length in both regions was relatively long, with an average consultation of 22 minutes. Consultations of duration between 6 and 15 minutes were reported by 38% of respondents in Kiev region and 26% in Vinnitsa region; consultations of more than 15 minutes were reported as the norm by two thirds of respondents. Most patients indicated that they could visit their GP/FD or DT on the same day as making an appointment: waiting times of more than a day appeared to be extremely rare, with only small differences between urban and rural areas on these items (Table 62).

The lower lines in Table 61 and Table 62 summarize patients' evaluations of their doctor. A small majority of those in Kiev region (55%) and a larger majority in Vinnitsa region (76%) were positive about their doctor's knowledge of their personal situation. On average, almost 80% of respondents assumed that their doctor would know about their past problems and illnesses from their medical records. Communication skills such as listening and providing explanations were also widely appreciated, although not equally across the regions. Patients in Vinnitsa region were more positive about their doctor across all items than patients in Kiev region. There were no real differences between patients by urbanization.

Almost two thirds of patients in Kiev region found their doctor was more accessible for consultations on medical problems than for personal problems, but the opposite was true in Vinnitsa region, where two thirds found their doctor to be very approachable for both medical and personal problems. There was no difference between physicians by urbanization. Almost all patients in both regions agreed with the statement that their doctor would visit them at home if asked.

The statement about feeling able to cope better with health problems or illness after a visit to the doctor reflects overall perceptions of the doctor's quality. Fifty-eight per cent of patients in Kiev region and 84% in Vinnitsa region agreed with this statement, suggesting room for improvement in Kiev region. There was no difference between patients by urbanization.

More than three quarters of patients indicated that they would go to their GP/FD or DT with a new health problem before seeking help from a medical specialist, but patients were very critical about the equipment available in their ambulatory and policlinic, with almost three quarters disagreeing with the statement that equipment was sufficient (only 17% in Kiev region and 34% in Vinnitsa region agreed that the equipment was sufficient). There was no real difference in this respect between urban and rural practices.

Patients' evaluations should be considered alongside physicians' reports of available medical equipment. It is likely that patients' views were based on more than just the availability of medical equipment: the state and quality of the equipment would probably also have been taken into account, while the physicians scored exclusively on availability. What is indisputable from this evaluation, however, is that patients were in favour of investment in equipment.

Between 84% and 95% of patients in Vinnitsa region reported that their doctor spoke with them about healthy eating, taking part in physical activity and alcohol and smoking behaviour (the first two items were most frequently reported). In Kiev region, patients reported that their doctor was somewhat less involved in promoting healthy behaviour: offering advice about alcohol use or smoking was mentioned by fewer patients in Kiev region (68% and 67% respectively). Doctors in Kiev region most often spoke about healthy eating and taking part in physical activity (89% and 80%) (Table 63).

Table 63. Patients' assessment of physicians' involvement in promoting healthy behaviour

Topic	Kiev region (N=1 050)		Vinnitsa region (N=1 065)		Total (N=2 115)	
	Total	%	Total	%	Total	%
Eating healthily	932	89	1 009	95	1 941	92
Taking part in physical activity	841	80	948	89	1 789	85
Use of alcohol	710	68	910	85	1 620	77
Reduce or stop smoking	700	67	890	84	1 590	75

Perceived coordination of care and choice of provider

As Table 64 shows, most patients had no freedom to choose their doctor. Freedom seemed more limited in Kiev region, where 71% were assigned to their doctor, than in Vinnitsa region (64%). Responses to a question on freedom to change doctors were equivocal. In Kiev region, 44% of patients reported they could not change doctors, 24% said they could change and 32% did not know. There appeared to be more freedom in Vinnitsa region, with greater than half of the patients (52%) being able to change to another doctor; 29% reported they could not change and 19% did not know whether this was possible.

Table 64. Patients' freedom to choose and change their primary care physician

Option	Kiev region (N=1 050)		Vinnitsa region (N=1 065)		Total (N=2 115)	
	Total	%	Total	%	Total	%
Patients reporting being assigned to their doctor	741	71	683	64	1 424	67
Patients reporting they could not change to another doctor	459	44	308	29	767	36

Table 65 and Table 66 present results related to patients' experiences of 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 65). Only 39% of those in Kiev region and 55% in Vinnitsa region responded that a specialist physician would have all the necessary information from the GP/FD or DT; 44% in Kiev region and 70% in Vinnitsa region believed that a referral their own GP/FD or DT would inform the specialist. After being treated by a specialist, 62% and 78%

respectively responded that their GP/FD or DT would be informed of the result of the specialist treatment.

The majority of patients in both regions (61% and 70%) were required to visit their GP/FD or DT before gaining free-of-charge access to a medical specialist at secondary and tertiary level. There was general agreement that the GP/FD or DT and nurse were working well together, but only 40% of patients in Kiev region and 64% in Vinnitsa region answered that the nurse sometimes offered independent consultations, consequently making a visit to the GP/FD or DT unnecessary.

Table 65. Patients' experiences of information-sharing and cooperation, by region

Statements	Kiev region (N=1 050)		Vinnitsa region (N=1 065)		Total (N=2 115)	
	Total	%	Total	%	Total	%
If I visit a doctor other than my own GP/FD or DT, he/she has all the necessary information about me	405	39	585	55	990	47
When I am referred, my GP/FD or DT informs the medical specialist about my illness	457	44	746	70	1 203	57
If I have been treated by a medical specialist, my GP/FD or DT knows the results	647	62	835	78	1 482	70
To see a specialist, I first need to visit my GP/FD or DT for a referral	636	61	744	70	1 380	65
My GP/FD or DT and the practice nurse work well together	713	68	994	93	1 707	81
Sometimes a nurse does the consultation, making it unnecessary for me to see my GP/FD or DT	416	40	676	64	1 092	52

Table 66 presents results by urban and rural location of the practice. Patients in urban areas were generally more positive about information-sharing and communication than urban patients, but differences are very small.

Table 66. Patients' experiences of information-sharing and cooperation, by urbanization

Statements	Urban (N=300)		Rural (N=1 815)		Total (N=2 115)	
	Total	%	Total	%	Total	%
If I visit a doctor other than my own GP/FD or DT, he/she has all the necessary information about me	150	50	840	46	990	47
When I am referred, my GP/FD or DT informs the medical specialist about my illness	173	58	1 030	57	1 203	57
If I have been treated by a medical specialist, my GP/FD or DT knows the results	217	72	1 265	70	1 482	70
To see a specialist, I first need to visit my GP/FD or DT for a referral	200	67	1 180	65	1 380	65
My GP/FD or DT and the practice nurse work well together	264	88	1 443	80	1 707	81
Sometimes a nurse does the consultation, making it unnecessary for me to see my GP/FD or DT	171	57	921	51	1 092	52

6. SUMMARY OF FINDINGS

Table 67 provides an overview of the findings, structured according to health system functions, selected dimensions and proxy indicators, as outlined in the Primary Care Evaluation Scheme in Chapter 1.

Table 67. Summary of findings (based on the results of the surveys among physicians and patients and on the national-level questionnaire)

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 only after 2000 • Department at the Ministry of Health specifically dealing with primary care since 2007		National-level questionnaire
	Regional variation	Regional variation exists in the implementation of the general practice-based primary care model	As central policy and regulation develops slowly, more active oblasts anticipate and take the initiative to develop primary care "on their own"	National-level questionnaire
Conditions for the care process	Laws and regulations	Approval of legislation and policy is very slow and is a cause of delay of reform		National-level questionnaire
Conditions for responsiveness	Involvement of professionals and patients in policy process	• The Ukrainian Association of Family Medicine participates in policy development, but is still weak in terms of membership • The All-Ukraine Council for the Defence of Patient Right was reported to contribute to health policy development		National-level questionnaire
	Patients' rights	64% of physicians reported that a patient complaint procedure was in place in their ambulatory or policlinic		Physician survey
Financing				
Incentives for providers		More than 99% of primary care physicians are state employed		National-level questionnaire

Selected dimension	Selected information items	Selected proxies/ findings	Background to findings	Source
Financial access for patients		85% of patients reported copayments for drugs prescribed in primary care	Primary care is free of charge for the majority of patients, except for prescribed medicines or injections. Many patients reported copayments for these services, which seemed to present an obstacle to the utilization of health care services for 18% of patients. Few respondents reported they also had to pay for a visit to a specialist after referral by their GP/FD or DT.	Patient survey
Resource generation				
Professional development	Workforce	• 17.4% of all active physicians in Ukraine worked in primary care • 34.9% of primary care physicians were GPs/ FDs • The average age of GPs/ FDs was 47 years • The average age of DTs was 49 years		National-level questionnaire
	Shortages	• The number of GP/ FD positions currently vacant in Ukraine is unknown • The number of DT positions currently vacant in Ukraine is unknown • 56% of GPs/FDs and 68% of DTs reported shortages existing for more than six months	At national level, survey results point to severe shortages of GPs/ FDs and DTs, and moderate shortages of paediatricians, gynaecologists, and nurses and support staff in both regions. Shortages were reported more often by urban than by rural physicians.	National-level questionnaire Physician survey
	Quality improvement mechanisms	• Number of hours GPs/ FDs or DTs reported spending on professional development activity per month: » GPs/FDs: 24 hours » DTs: 35 hours • 64% of physicians reported frequently using clinical guidelines		National-level questionnaire
	Human resources planning	At present, 22% of the national requirement for GPs/ FDs is available (calculated from the official norm). The current training capacity at medical universities may need to be expanded.		National-level questionnaire
	Organization of professionals	• There are 17 medical universities in Ukraine with GP (re)training capacity	As general practice/family medicine has not been acknowledged as an academic discipline in Ukraine, there are no professors in general practice/family medicine	National-level questionnaire

Selected dimension	Selected information items	Selected proxies/ findings	Background to findings	Source
Medical equipment		• 18% of physicians had a computer available in the practice • Number of items of medical equipment reported to be available (from a list of 30 items): - GPs/ FDs: 20 items (67%) » DTs: 21 (68%) • 83% of patients found the available equipment was insufficient	Very few physicians had a computer available in their practice. Computers were used for a slightly wider range of applications in Kiev region than in Vinnitsa region. Physicians in Vinnitsa region and in rural practices were better-equipped than their colleagues in Kiev region and in urban practices. Laboratory facilities were available in most practices, more often than X-ray facilities. Patients were very negative about the availability of equipment in their ambulatory or policlinic, particularly in Kiev region.	Physician survey
Delivery of care				
Accessibility				
Geographical access		• 42% of patients reported up to 20 minutes travel to GP/FD or DT	The majority of patients in both regions reported that they could easily reach their policlinic or ambulatory by public transport. One in three patients in both regions could reach their preferred primary care facilities and a hospital within 20 minutes. Patients in Kiev region reported longer travel times to all surveyed facilities than patients in Vinnitsa region.	Patient survey
Organization access	Practice population	• Reported number of patients per GP/FD: 2 106 • Reported number of patients per DT: 2 770	Practices in Kiev region were on average larger than those in Vinnitsa region. The average list sizes of GPs/FDs in both regions were far above the national norm for this discipline (1200/1500 patients per GP/FD). The average for DTs in Kiev region was also far above the national norm for DTs.	Physician survey

Selected dimension	Selected information items	Selected proxies/ findings	Background to findings	Source
	Workload	Reported number of: • office consultations per day per GP/FD: 23 • office consultations per day per DT: 25 • home visits per week per GP/FD: 24 • home visits per week per DT: 14 • working hours per week per GP/FD: 39 hours • working hours per week per DT: 26 hours	The workload differed by region, and by urbanization. Physicians in Vinnitsa region had a higher workload than those in Kiev region in terms of consultations per day, home visits and working hours per week. This was regardless of the fact that physicians in Kiev region had a larger list size than physicians in Vinnitsa region. GPs/FDs made more home visits and had much longer working hours, but had about the same number of consultations per day compared to DTs. Urban physicians in Kiev region had on average larger list sizes, more patient consultations per day and more home visits than rural physicians, but fewer working hours per week. The average list size of urban physicians was smaller in Vinnitsa region, but the number of consultations per day and home visits per week was more than for rural physicians. The number of working hours per week in Vinnitsa region was lower for urban than for rural physicians.	Physician Survey
	Patients' access and availability of services	• Reported visiting frequency of patients (utilization rate): 4.9 visits per year • Reported average length of a patient consultation per patient: 22 minutes • Physicians offering same-day consultation: 99% • Patients reporting having same-day consultation if demanded: 83% • Physicians offering evening opening at least once per week: 37%	Patients in Kiev region visited their physician six times a year and their nurse once a year. Patients in Vinnitsa region made fewer physician visits (four per year) and a similar amount of nurse visits (one per year). In both regions, physicians spent on average 22 minutes per consultation. Patients in Vinnitsa region had more positive experiences with opening hours and getting access to doctors than those in Kiev region. Patients in both regions experienced very limited access during out-of-office hours. Doctor visits in the evening were particularly rare. Despite this, patients were still moderately satisfied with current opening hours (68% in Kiev region; 83% in Vinnitsa region).	Patient survey Physician survey
Coordination				
Cohesion within primary care	Practice management	22% of physicians worked in single-handed practices	In both regions, one third of respondents worked in shared practices with other primary care physicians and medical specialists, which may enhance the coordination of care	Physician survey

Selected dimension	Selected information items	Selected proxies/ findings	Background to findings	Source
	Collaboration	• 32% of physicians reported working with other primary care physician(s) in same premises • Percentage of physicians reporting having regular face-to-face meetings with: » family nurse: 82% » midwife: 67% » pharmacist: 61%	Shared practices with a practice nurse, midwife, family nurse and a laboratory technician were normal. Practically all physicians had regular meetings with other GPs/FDs or DTs. Differences between GPs/FDs and DTs in their collaboration with other health care workers were small. Forty per cent of patients in Kiev region and 64% in Vinnitsa region responded that nurses made independent consultations, making a visit to the physician unnecessary.	Physician survey Patient survey
Coordination with other care levels	Referral system	• Average number of referrals to medical specialists over four weeks: 34 referrals » rural: 33 » urban: 42 • Referral rate (percentage of all reported office and home care contacts): » GPs/FDs: 6.2% » DTs: 5.9% » rural: 6.3% » urban: 6.6% • There were 12.7 hospital admissions ordered by primary care physicians per 1000 patient contacts • The number of pharmaceutical prescriptions issued by primary care physicians per 100 patient contacts was unknown	More than three quarters of patients indicated that they would go to their GP/FD or DT with a new health problem before seeking help from a medical specialist. Referral rates to medical specialists in Kiev region and Vinnitsa region were almost equal (6.3% and 6.1% respectively). Referral rates from GPs/FDs were somewhat higher than those from DTs. The highest number of referrals in both regions was to gynaecologists, and the lowest to dermatologists and oncologists. Physicians practising in urban areas made more patient referrals to medical specialists than their colleagues in rural areas.	National-level questionnaire Physician survey Patient survey
	Collaboration with secondary level		Collaboration with secondary care was generally high. More than 80% of physicians had regular consultations with gynaecologists, surgeons, neurologists, dermatologists, endocrinologists, cardiologists, ear, nose and throat specialists, and ophthalmologists. Consultations with paediatricians and internal medicine specialists were less frequent among DTs.	Physician survey

Selected dimension	Selected information items	Selected proxies/ findings	Background to findings	Source
Continuity				
Information continuity		• 79% of GPs/FDs and 90% of DTs reported that they kept medical records of all patient contacts on a routine basis • 76% of GPs/FDs and 85% of DTs reported that they routinely used referral letters • 18% of GPs/FDs and 22% of DTs reported that they had a computer available	Routinely keeping medical records of all patient contacts was part of daily practice for most physicians in both regions. Physicians were also generally able to easily generate a list of patients by diagnosis or health risk. Most physicians in both regions indicated that they used referral letters for patients referred to medical specialists. In both regions, only a few physicians had a computer at their disposal. This hampers efficient practice and information management. Patients were negative about the exchange of information between their own and other treating physicians, indicating several areas for improvement.	Physician Survey Patient survey
Longitudinal continuity		• 92% of patients reported having been registered with their doctor for at least one year • 67% of patients reported they had not chosen their doctor, but instead were assigned to him or her	Most patients in both regions were assigned to their doctor. More than one third of patients reported that they could not change to another physician, and many others did not know whether they had this option. The conditions for a continuous doctor–patient relationship were good, as practice populations in both regions seemed to be relatively stable.	Patient survey

Selected dimension	Selected information items	Selected proxies/ findings	Background to findings	Source
Interpersonal continuity		• 60% of patients were with their GP/FD or DT for more than three years	Patients in Vinnitsa region were more positive about their doctor than patients in Kiev region. There were no real differences by urbanization. Patients usually saw their own GP/FD or DT whenever visiting their centre. They had relatively long consultations (22 minutes). Just over half of patients were certain that their physician knew their personal situation and was aware of their medical history. Patients in both regions felt their physician took sufficient time to talk to them. They also appreciated their doctor's communication skills. Almost two thirds of patients in Kiev region found their doctor was more accessible for medical problems than for personal problems. The opposite was true in Vinnitsa region. 71% of patients felt better-able to cope with their health problem after a visit to their doctor. Almost all patients were satisfied with their doctor's willingness to visit them at home. Patients were very critical about medical equipment. Only 17% in Kiev region and 34% in Vinnitsa region felt that the equipment available was sufficient.	Patient survey
Comprehensiveness				
Practice conditions	Convenience	• 45% of patients reported that their centre was accessible to disabled people and those using a wheelchair	Patients were negative about the accessibility of premises to disabled people, particularly in Kiev region. The quality of the waiting room could also be improved, according to patients in both regions. Most patients were satisfied with how they were treated at the reception desk.	Patient survey
	Information materials	Percentages of physicians reporting the availability of information in the waiting room on: • cardiovascular disease: 93% • smoking cessation: 83% • diabetes: 86% • vaccinations: 83% • healthy diet: 68% • contraception: 69% • self-treatment of colds: 50% • social services: 25%	The availability of information materials overall was good, but they were available less frequently in Kiev region.	Physician survey

Selected dimension	Selected information items	Selected proxies/ findings	Background to findings	Source
Services delivery	Population groups served	• The consolidated score for the doctor as first contact (based on 18 items: range of score 1–4): » GPs/FDs: 2.37 » DTs: 2.01	GPs/FDs in Vinnitsa had slightly higher scores as the doctor as first contact than GPs/FDs in Kiev. GPs/FDs were more involved in first contact with problems involving children and women. There was relatively little involvement in first contact with problems relating to reproductive health or relational or psychosocial problems. Urban GPs/FDs were less often the doctor of first contact than their colleagues in rural practices.	Physician survey
	Involvement of primary care physicians in the treatment of diseases	• The consolidated score for the provision of treatment of diseases (based on 19 items: range of score 1–4): » GPs/FDs: 2.89 » DTs: 2.90	Both GPs/FDs and DTs were relatively well-involved in the treatment and follow-up of diseases. The treatment role was stronger with GPs/FDs in Vinnitsa region and with physicians working in rural practices.	Physician survey
	Provision of preventive and medical–technical procedures	• The consolidated score for the provision of medical procedures and prevention (based on 16 items: range 1–4): » GPs/FDs: 1.49 » DTs: 1.37 • Coverage of public health activities (based on eight items = 100%): » GPs/FDs: 65% » DTs: 67% • Involvement in cervical cancer screening programme: » GPs/FDs: 45% » DTs: 48%	Both GPs/FDs and DTs (particularly in Kiev region) were rarely involved in prevention and medical–technical procedures. Only 3–4 tasks out of a list of 16 appeared to be routine for GPs/FDs and DTs respectively. The remaining tasks probably belonged to the domain of gynaecologists, ophthalmologists and otolaryngologists. Rural physicians were more often involved in prevention and medical–technical procedures than their urban colleagues. GPs/FDs and DTs in both regions were generally involved in various activities for high-risk groups, with the exceptions of screening for sexually transmitted infections and cervical cancer. Most patients indicated that their doctor would pay attention to eating habits, physical activity and alcohol and smoking behaviour.	Physician survey Patient survey
	Provision of mother, reproductive and child health care	• Percentage providing routine antenatal care: » GPs/FDs: 70% » DTs: 53% • Percentage providing routine paediatric surveillance: » GPs/FDs: 79% » DTs: 35% • Percentage providing family planning/contraception routinely: » GPs/FDs: 49% » DTs: 30%	GPs/FDs in Vinnitsa region generally reported being more involved in these services than GPs/FDs in Kiev region. Rural physicians (especially GPs/FDs) were much more involved in the provision of mother and child health services than physicians in urban practices.	Physician survey

Selected dimension	Selected information items	Selected proxies/ findings	Background to findings	Source
	Provision of tuberculosis (TB) care	• Number of patients receiving follow-up TB care: » per GP/FD: 5.1 » per DT: 6.9 • Number of new TB patients identified in primary care practice in 2008: » per GP/FD: 1.7 » per DT: 2.1 • Number of households with recently diagnosed TB case under primary care supervision: » per GP/FD: 3.5 » per DT: 3.6 • Percentage of physicians trained in counselling TB patients: » GPs/FDs: 54% » DTs: 65%	One in four physicians had no information about the number of tuberculosis cases in his or her patient population. GPs/FDs in rural areas had received training in aspects of TB care about twice as frequently as those in urban areas. A majority of physicians in both regions were involved in TB-related activities. Directly observed treatment, however, was not common, even less so in Vinnitsa than in Kiev. Two thirds of respondents had recently received new TB information materials. More GPs/FDs and more physicians in rural areas had received new posters and leaflets on TB than physicians in urban areas.	Physician survey
Community orientation		• 73% of physicians reported regular meetings with local authorities	Connections with the community in terms of regular meetings with local authorities were fairly strong in both regions. However, it was less common to have regular meetings with social workers and rare to have community representatives on the board of the practice or centre.	Physician Survey

ANNEX 1

Tables 33–38

Table 33. Physicians' role in the first contact with patients' health problems, by region

Physician estimated to be the first contact in case of:	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*	Valid N	% GPs/ FDs*	% DTs*	Valid N
child with rash	73 (*15*)	40 (*18*)	102/40	85 (*9*)	141	80 (*11*)	40 (*18*)	243/40
child with severe cough	78 (*12*)	43 (*18*)	102/40	90 (*5*)	141	85 (*8*)	43 (*18*)	243/40
child aged 7 years with enuresis	49 (*24*)	33 (*13*)	102/40	56 (*28*)	141	53 (*26*)	33 (*13*)	243/40
child aged 8 years with hearing problem	46 (*22*)	23 (*15*)	102/40	35 (*37*)	141	41 (*29*)	23 (*15*)	243/40
woman aged 18 asking for oral contraception	17 (*25*)	10 (*20*)	102/40	14 (*36*)	141	15 (*31*)	10 (*20*)	243/40
woman aged 20 for confirmation of pregnancy	29 (*28*)	13 (*18*)	102/40	28 (*18*)	141	28 (*22*)	13 (*18*)	243/40
woman aged 35 with irregular menstruation	28 (*28*)	13 (*33*)	102/40	23 (*39*)	141	25 (*34*)	13 (*33*)	243/40
woman aged 50 with lump in the breast	55 (*28*)	60 (*15*)	102/40	59 (*28*)	141	57 (*28*)	60 (*15*)	243/40
woman aged 60 with polyuria	62 (*24*)	68 (*10*)	102/40	75 (*16*)	141	69 (*19*)	68 (*10*)	243/40
anxious man aged 45	44 (*35*)	50 (*23*)	102/40	50 (*32*)	141	47 (*33*)	50 (*23*)	243/40
man aged 28 with a first convulsion	49 (*27*)	55 (*20*)	102/40	50 (*22*)	141	49 (*24*)	55 (*20*)	243/40
physically abused child	17 (*15*)	15 (*10*)	102/40	21 (*16*)	141	19 (*16*)	15 (*10*)	243/40
couple with relationship problems	9 (*12*)	13 (*15*)	102/40	4 (*23*)	141	6 (*18*)	13 (*15*)	243/40
man with suicidal inclination	9 (*18*)	23 (*55*)	102/40	5 (*18*)	141	7 (*18*)	23 (*55*)	243/40
woman aged 35 with psychosocial problems related to work	31 (*32*)	28 (*23*)	102/40	32 (*31*)	141	32 (*31*)	28 (*23*)	243/40
man aged 32 with sexual problems	9 (*28*)	5 (*25*)	102/40	8 (*26*)	141	8 (*27*)	5 (*25*)	243/40
man aged 52 with alcohol addiction problems	42 (*29*)	23 (*30*)	102/40	31 (*37*)	141	35 (*34*)	23 (*30*)	243/40
man with symptoms of TB	64 (*20*)	65 (*15*)	102/40	72 (*18*)	141	69 (*19*)	65 (*15*)	243/40
TOTAL SCORE "First contact"**	**2.29**	**2.01**		**2.42**		**2.37**	**2.01**	

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

Table 34. Physicians' role in the first contact with patients' health problems, by urbanization

Physician estimated to be the first contact in case of:	Urban (N=27)			Rural (N=256)			Total (N=283)		
	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*	Valid N	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*
child with rash	67 (*8*)	33 (*33*)	24/3	81 (*11*)	41 (*16*)	219/37	80 (*11*)	40 (*18*)	243/40
child with severe cough	71 (*8*)	33 (*33*)	24/3	87 (*8*)	43 (*16*)	219/37	85 (*8*)	43 (*18*)	243/40
child aged 7 years with enuresis	17 (*42*)	33 (–)	24/3	57 (*24*)	32 (*14*)	219/37	53 (*26*)	33 (*13*)	243/40
child aged 8 years with hearing problem	13 (*29*)	– (–)	24/3	29 (*44*)	24 (*16*)	219/37	41 (*29*)	23 (*15*)	243/40
woman aged 18 asking for oral contraception	– (*13*)	– (–)	24/3	16 (*33*)	11 (*22*)	219/37	15 (*31*)	10 (*20*)	243/40
woman aged 20 for confirmation of pregnancy	13 (*8*)	– (–)	24/3	30 (*24*)	14 (*19*)	219/37	28 (*22*)	13 (*18*)	243/40
woman aged 35 with irregular menstruation	8 (*25*)	– (*33*)	24/3	27 (*35*)	14 (*32*)	219/37	25 (*34*)	13 (*33*)	243/40
woman aged 50 with lump in the breast	38 (*42*)	67 (*33*)	24/3	59 (*27*)	60 (*14*)	219/37	57 (*28*)	60 (*15*)	243/40
woman aged 60 with polyuria	71 (*13*)	33 (*33*)	24/3	69 (*20*)	70 (*8*)	219/37	69 (*19*)	68 (*10*)	243/40
anxious man aged 45	38 (*29*)	– (*67*)	24/3	48 (*34*)	54 (*19*)	219/37	47 (*33*)	50 (*23*)	243/40
man aged 28 with a first convulsion	25 (*29*)	33 (*33*)	24/3	52 (*23*)	57 (*19*)	219/37	49 (*24*)	55 (*20*)	243/40
physically abused child	4 (*13*)	– (–)	24/3	21 (*16*)	16 (*11*)	219/37	19 (*16*)	15 (*10*)	243/40
couple with relationship problems	– (*8*)	– (–)	24/3	6 (*19*)	14 (*16*)	219/37	6 (*18*)	13 (*15*)	243/40
man with suicidal inclination	8 (*13*)	– (–)	24/3	6 (*19*)	8 (*16*)	219/37	7 (*18*)	8 (*23*)	243/40
woman aged 35 with psychosocial problems related to work	25 (*38*)	33 (–)	24/3	32 (*31*)	27 (*24*)	219/37	32 (*31*)	28 (*23*)	243/40
man aged 32 with sexual problems	8 (*13*)	– (–)	24/3	8 (*28*)	5 (*27*)	219/37	8 (*27*)	5 (*25*)	243/40
man aged 52 with alcohol addiction problems	13 (*38*)	– (–)	24/3	38 (*33*)	24 (*32*)	219/37	35 (*34*)	23 (*30*)	243/40
man with symptoms of TB	54 (*21*)	100 (–)	24/3	70 (*19*)	62 (*16*)	219/37	69 (*19*)	65 (*15*)	243/40
TOTAL SCORE "First contact"**	**1.90**	**– *****		**2.41**	**2.08**		**2.37**	**2.01**	

*Note: percentages are the sum of the answers "(almost) always" and "usually"; percentages in brackets refer to the answers "occasionally" being the doctor of first contact
**For the calculation of the score, answers have been weighted as follows: seldom/never = 1; occasionally = 2; usually = 3; (almost) always = 4
***Score not calculated because very low number of observations

Table 35. Physicians' involvement in treatment and follow-up of diseases, by region

Physicians' involvement in treatment of:	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*	Valid N	% GPs/ FDs*	% DTs*	Valid N
hyperthyroidism	45 (*28*)	43 (*38*)	102/40	36 (*40*)	141	40 (*35*)	43 (*38*)	243/40
chronic bronchitis	98 (*1*)	95 (*3*)	102/40	97 (*2*)	141	98 (*2*)	95 (*3*)	243/40
hordeolum (stye)	48 (*36*)	53 (*25*)	102/40	62 (*27*)	141	56 (*31*)	53 (*25*)	243/40
peptic ulcer	88 (*7*)	93 (*8*)	102/40	84 (*9*)	141	86 (*8*)	93 (*8*)	243/40
herniated disc lesion	37 (*42*)	40 (*30*)	102/40	34 (*40*)	141	35 (*41*)	40 (*30*)	243/40
acute cerebrovascular accident	70 (*23*)	58 (*33*)	102/40	62 (*26*)	141	65 (*25*)	58 (*33*)	243/40
congestive heart failure	96 (*3*)	95 (*3*)	102/40	90 (*5*)	141	93 (*4*)	95 (*3*)	243/40
pneumonia	98 (*1*)	100 (–)	102/40	97 (*2*)	141	97 (*2*)	100 (–)	243/40
peritonsilar abscess	39 (*35*)	50 (*28*)	102/40	45 (*36*)	141	42 (*35*)	50 (*28*)	243/40
ulcerative colitis	39 (*34*)	68 (*25*)	102/40	49 (*30*)	141	45 (*32*)	68 (*25*)	243/40
salpingitis	10 (*44*)	18 (*25*)	102/40	15 (*44*)	141	13 (*44*)	18 (*25*)	243/40
concussion of brain	44 (*39*)	28 (*45*)	102/40	42 (*37*)	141	43 (*38*)	28 (*45*)	243/40
Parkinson's disease	29 (*42*)	43 (*33*)	102/40	36 (*38*)	141	33 (*40*)	43 (*33*)	243/40
uncomplicated diabetes (type ii)	81 (*15*)	78 (*20*)	102/40	79 (*12*)	141	80 (*13*)	78 (*20*)	243/40
rheumatoid arthritis	86 (*9*)	95 (*5*)	102/40	89 (*6*)	141	88 (*7*)	95 (*5*)	243/40
depression	43 (*39*)	33 (*33*)	102/40	41 (*43*)	141	42 (*42*)	33 (*33*)	243/40
myocardial infarction	63 (*24*)	80 (*13*)	102/40	65 (*22*)	141	64 (*23*)	80 (*13*)	243/40
follow-up TB care	79 (*10*)	63 (*20*)	102/40	79 (*13*)	141	79 (*12*)	63 (*20*)	243/40
palliative care	80 (*16*)	55 (*23*)	102/40	76 (*11*)	141	78 (*13*)	55 (*23*)	243/40
TOTAL SCORE "Treatment tasks"**	**2.86**	**2.90**		**2.91**		**2.89**	**2.94**	

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

Table 36. Physicians' involvement in treatment and follow-up of diseases, by urbanization

Physicians' involvement in treatment of:	Urban (N=27)			Rural (N=256)			Total (N=283)		
	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*	Valid N	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*
hyperthyroidism	29 (*33*)	33 (*33*)	24/3	41 (*36*)	43 (*38*)	219/37	40 (*35*)	43 (*38*)	243/40
chronic bronchitis	92 (*8*)	100 (–)	24/3	98 (*1*)	95 (*3*)	219/37	98 (*2*)	95 (*3*)	243/40
hordeolum (stye)	38 (*42*)	33 (–)	24/3	58 (*30*)	54 (*27*)	219/37	56 (*31*)	53 (*25*)	243/40
peptic ulcer	67 (*4*)	100 (–)	24/3	88 (*8*)	92 (*8*)	219/37	86 (*8*)	93 (*8*)	243/40
herniated disc lesion	17 (*46*)	– (*33*)	24/3	37 (*41*)	43 (*30*)	219/37	35 (*41*)	40 (*30*)	243/40
acute cerebrovascular accident	58 (*17*)	67 (*33*)	24/3	66 (*26*)	57 (*32*)	219/37	65 (*25*)	58 (*33*)	243/40
congestive heart failure	92 (–)	100 (–)	24/3	93 (*5*)	95 (*3*)	219/37	93 (*4*)	95 (*3*)	243/40
pneumonia	100 (–)	100 (–)	24/3	97 (*2*)	100 (–)	219/37	97 (*2*)	100 (–)	243/40
peritonsilar abscess	33 (*21*)	33 (*67*)	24/3	43 (*37*)	51 (*24*)	219/37	42 (*35*)	50 (*28*)	243/40
ulcerative colitis	38 (*29*)	67 (*33*)	24/3	46 (*32*)	68 (*24*)	219/37	45 (*32*)	68 (*25*)	243/40
salpingitis	8 (*33*)	– (–)	24/3	13 (*45*)	19 (*27*)	219/37	13 (*44*)	18 (*25*)	243/40
concussion of brain	25 (*42*)	– (*67*)	24/3	45 (*37*)	30 (*43*)	219/37	43 (*38*)	28 (*45*)	243/40
Parkinson's disease	42 (*29*)	– (*67*)	24/3	32 (*41*)	46 (*30*)	219/37	33 (*40*)	43 (*33*)	243/40
uncomplicated diabetes (type ii)	67 (*25*)	67 (*33*)	24/3	81 (*12*)	78 (*19*)	219/37	80 (*13*)	78 (*20*)	243/40
rheumatoid arthritis	79 (*17*)	100 (–)	24/3	89 (*6*)	95 (*5*)	219/37	88 (*7*)	95 (*5*)	243/40
depression	29 (*54*)	33 (*33*)	24/3	43 (*40*)	32 (*32*)	219/37	42 (*42*)	33 (*33*)	243/40
myocardial infarction	63 (*17*)	33 (*33*)	24/3	64 (*23*)	84 (*11*)	219/37	64 (*23*)	80 (*13*)	243/40
follow-up TB care	63 (*29*)	67 (*33*)	24/3	81 (*10*)	62 (*22*)	219/37	79 (*12*)	63 (*20*)	243/40
palliative care	71 (*8*)	33 (*33*)	24/3	79 (*14*)	57 (*22*)	219/37	78 (*13*)	55 (*23*)	243/40
TOTAL SCORE "Treatment tasks"**	**2.60**	**– *****		**2.92**	**2.96**		**2.89**	**2.94**	

*Note: percentages are the sum of the answers "(almost) always" and "usually"; percentages in brackets refer to the answers "occasionally" being the doctor of first contact
**For the calculation of the score, answers have been weighted as follows: seldom/never = 1; occasionally = 2; usually = 3; (almost) always = 4
***Score not calculated because very low number of observations

Table 37. Involvement of physicians in the provision of medical–technical procedures, by region

Procedure usually provided by physician or practice staff	Kiev region (N=142)			Vinnitsa region (N=141)		Total (N=283)		
	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*	Valid N	% GPs/ FDs*	% DTs*	Valid N
Wedge resection of ingrown toenail	19	13	102/40	31	141	26	13	243/40
Removal of sebaceous cyst from hairy scalp	11	8	102/40	17	141	14	8	243/40
Wound suturing	31	25	102/40	45	141	39	25	243/40
Excision of warts	15	13	102/40	14	141	14	13	243/40
Intrauterine device insertion	6	98	102/40	13	141	10	98	243/40
Removal of rusty spot from cornea	3	5	102/40	8	141	6	5	243/40
Fundoscopy	9	10	102/40	9	141	9	10	243/40
Joint injection	29	30	102/40	28	141	28	30	243/40
Maxillary (sinus) puncture	5	10	102/40	6	141	6	10	243/40
Myringotomy of eardrum (para-centesis)	3	15	102/40	7	141	5	15	243/40
Applying plaster cast	25	25	102/40	38	141	32	25	243/40
Strapping an ankle	60	40	102/40	60	141	60	40	243/40
Cryotherapy (warts)	12	18	102/40	15	141	14	18	243/40
Setting up intravenous infusion	91	83	102/40	93	141	92	83	243/40
Immunizations for 'flu or tetanus	90	78	102/40	96	141	93	78	243/40
Allergy vaccinations	68	68	102/40	76	141	72	68	243/40
TOTAL SCORE "Medical procedures/prevention" * (range 1–3)	**1.44**	**1.37**		**1.52**		**1.49**	**1.37**	

*For the calculation of the score, answers have been weighted as follows: seldom/never = 1; occasionally = 2; usually = 3; (almost) always = 4

Table 38. Involvement of physicians in the provision of medical–technical procedures, by urbanization

Procedure usually provided by physician or practice staff	Urban (N=27)			Rural (N=256)			Total (N=283)		
	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*	Valid N	% GPs/ FDs*	% DTs*	Valid N	% GPs/ FDs*
Wedge resection of ingrown toenail	8	–	24/3	28	14	219/37	26	13	243/40
Removal of sebaceous cyst from hairy scalp	4	–	24/3	16	8	219/37	14	8	243/40
Wound suturing	8	33	24/3	43	24	219/37	39	25	243/40
Excision of warts	4	33	24/3	15	11	219/37	14	13	243/40
Intrauterine device insertion	4	–	24/3	11	5	219/37	10	5	243/40
Removal of rusty spot from cornea	4	–	24/3	6	5	219/37	6	5	243/40
Fundoscopy	4	33	24/3	9	8	219/37	9	10	243/40
Joint injection	4	33	24/3	31	30	219/37	28	30	243/40
Maxillary (sinus) puncture	–	–	24/3	6	11	219/37	6	10	243/40
Myringotomy of ear-drum (paracentesis)	–	–	24/3	6	16	219/37	5	15	243/40
Applying plaster cast	13	67	24/3	34	22	219/37	32	25	243/40
Strapping an ankle	29	67	24/3	63	38	219/37	60	40	243/40
Cryotherapy (warts)	13	33	24/3	14	16	219/37	14	18	243/40
Setting up intravenous infusion	75	100	24/3	94	81	219/37	92	83	243/40
Immunizations for 'flu or tetanus	71	100	24/3	96	76	219/37	93	78	243/40
Allergy vaccinations	42	100	24/3	76	65	219/37	72	68	243/40
TOTAL SCORE "Medical procedures/prevention" * (range 1–3)	**1.19**	**– **)**		**1.52**	**1.41**		**1.49**	**1.37**	

*For the calculation of the score, answers have been weighted as follows: seldom/never = 1; occasionally = 2; usually = 3; (almost) always = 4

**Score not calculated because very low number of observations

ANNEX 2

Glossary of primary care terms

Accessibility: patients' 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 (*4*).

Continuity: 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*).

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 interlinkages among staff members and agencies over a longer period of treatment (*11*).

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

Family medicine teams: can vary from country to country and in size. The core team usually encompasses the general practitioner and a nurse, but can consist of a multidisciplinary team of up to 30 professionals, including community nurses, midwives, feldshers (medical attendants), dentists, physiotherapists, social workers, psychiatrists, speech therapists, dieticians, pharmacists, administrative staff and managers. (*21*). In 2003, WHO used the description that a primary care team is a group of "fellow professionals with complementary contributions to make in patient care. This would be 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 cannot but change over time: it is a flexible construct.

General practice: a term now often used loosely to cover the general practitioner and other personnel, and is therefore synonymous with primary care and family medicine. Originally, it was meant to describe the concept and model around the most significant single player in primary care – the general practitioner or primary care physician – while "family medicine" originally encompassed the notion of a team approach. Whenever the notion of solo practitioner (general practice) versus team-based approach (family medicine) 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 within the health system (*24*).

Primary care: is more than just the level of care or the gatekeeping element – it is a key process in the health system. It is the first contact with accessible, continuous, 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 a disease; comprehensive care is a range of services appropriate to 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 (*4*).

Resource generation: the provision of essential inputs to the health system, including human capital, physical capital and consumables (*4*).

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 is revealed in health outcomes). Enhancing responsiveness to the expectations of the population, includes: (a) respect for persons (including dignity, confidentiality [of information] and autonomy of individuals and families to decide about their own health); and (b) client orientation (including prompt attention, access to social support networks during care, providing quality of basic amenities and choice of provider) (*4*).

Stewardship: a function of government responsible for the welfare of the population, and concerned with the trust and legitimacy with which its activities are viewed by the citizenry. It includes overseeing and guiding the operation and 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) (*4,8*).

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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, the backgrounds to, and reasons for, reforms are not similar. In western Europe, the emphasis on primary care relates to questions of rising costs and changing demand as a result of demographic and epidemiological trends. Central and eastern European countries, as well as the countries of the former Soviet Union, 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.

Health reforms are part of profound and comprehensive changes of essential societal functions and values in many countries in transition. Reforms of (primary) care are not always based on evidence, and progress is often driven by political arguments or the interests of specific professional groups rather than sound evaluations. However, policy-makers and managers are now increasingly demanding evidence about progress of reforms and the responsiveness of services.

This report evaluates primary care developments in Ukraine based on a methodology that characterizes a good primary care system as comprehensive, accessible, coordinated and integrated, and that ensures continuity. The methodology recognizes that in order to improve the overall health system, all health system functions outlined in the WHO Primary Care Evaluation Tool (PCET) – financing, service delivery, human resources and other resources such as appropriate facilities, equipment and drugs – need to be taken equally into consideration, that all necessary legal frameworks and regulations need to be in place, and that the system needs to be steered by effective leadership. It 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.

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