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Review of Experience of Family Medicine in Europe and Central Asia

(In Five Volumes) Volume I: Executive Summary

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Human Development Sector Unit
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REVIEW OF EXPERIENCE OF FAMILY MEDICINE IN EUROPE AND CENTRAL ASIA: EXECUTIVE SUMMARY

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank	MOH	Ministry of Health
CHI	Compulsory Health Insurance	NGO	Non Governmental Organization
CME	Continuing Medical Education	NHA	National Health Accounts
CPD	Continuing Professional Development	OECD	Organization for Economic Cooperation and Development
DFID	UK Department for International Development	PC	Primary Care
ECA	Europe and Central Asia	PHC	Primary Health Care
EBM	Evidence-based medicine	PRSP	Poverty Reduction Strategy Paper
FD	Family Doctor	SDC	Swiss Development Corporation
FGP	Family Group Practice	SVA	Semeinaya/selksiya Vrachebnaya Ambulatoria (GP provider unit)
FM	Family Medicine	TOT	Training of Trainers
FMP	Family Medicine Physician	TOR	Terms of Reference
FMT	Family Medicine Team	UK	The United Kingdom
GDP	Gross domestic product	US	The United States of America
GP	General Practitioner	USAID	United States Agency for International Development
HIF	Health Insurance Fund	WB	The World Bank
M&E	Monitoring and Evaluation	WHO	World Health Organization

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REVIEW OF EXPERIENCE OF FAMILY MEDICINE IN EUROPE AND CENTRAL ASIA: EXECUTIVE SUMMARY

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This report summarizes the findings of four case studies that review the experience of family medicine in Europe and Central Asia (ECA) Region. It is part of a study comprising five volumes that review the experience of FM in four countries in ECA – Armenia, Bosnia and Herzegovina, Kyrgyz Republic and Moldova. The report reviews the experience, draws lessons and establishes an evidence-base for detailed analysis. The study presents best practices for policy dialogue and future investments by the WB and other financial institutions. The detailed case studies compare these countries and draw common themes and issues. Comparisons are made with best-developed or existing models in the OECD and other ECA countries that have already undertaken FM reform.

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1. INTRODUCTION

1.1. WHY FAMILY MEDICINE-CENTERED PRIMARY HEALTH CARE?

1. Many countries fall short of their performance potential to achieve health system objectives of equity, efficiency, effectiveness and responsiveness.¹ Health system performance can be enhanced if a strong FM-centered primary health care (PHC) level is present.² PHC is seen as an effective vehicle to “improve health-care access and outcomes while narrowing equity gaps.”³⁻⁶ Scaling-up health care systems based on the principles of PHC is identified as a key priority⁷ and as the “means by which the goals of health systems are balanced”⁸, as it deals with single or multiple health problems taking into account the context in which illness exists.

1.2. DEFINITION OF FAMILY MEDICINE AND PRIMARY HEALTH CARE

2. The definition of primary care varies in terms of concept, level, service content, team membership and process. In the industrialized countries of Europe and North America, the core PHC team consists of a family physician, a community nurse, a practice nurse, a social worker, a therapist, a manager and administrative staff.¹⁰ As with the definition of primary care, the definition and the role of the family physician (FP) vary by country¹¹⁻¹² (see Annex 1 for definitions of PHC) whereas ‘specialist care’ is defined as those services delivered by a narrow specialist – usually in hospital or in ambulatory setting, referring to services not delivered in primary care.

1.3. ROLE OF FAMILY MEDICINE-CENTERED PHC IN HEALTH SYSTEMS

3. Vuori describes the constituent components of PHC as: (i) a set of activities, (ii) a level of care, (iii) a strategy for organizing health services, and (iv) a philosophy that should permeate the entire health system.¹³

4. Family physicians manage key processes within health systems, including: (i) first contact care accessible at the time of need; (ii) ongoing care, which focuses on the long-term health of a person, not on the short-term duration of the disease; (iii) comprehensive care, providing a range of services appropriate to common problems in the population; and (iv) coordination, by which the family physician or the PHC team act to coordinate other specialist services which the patient needs.^{14, 15}

5. Family medicine is an integral part of PHC, but the terms are not always synonymous. The role of the family physician (also called a general practitioner, family practitioner or FM specialist) gives an indication as regards the breadth of PHC services provided in the country. (See Annex 2 for definitions of family physician.). In industrialized countries, the PHC is staffed by family physicians who are trained as specialists, and not narrow specialists or doctors who have not specialized in FM. The family physician is the only clinician who operates in the nine levels of care.¹⁶

Table 1: Role of the Family Physician

Prevention of disease
Pre-symptomatic detection of disease
Early diagnosis of disease
Diagnosis of established disease
Management of disease
Management of the complication of disease
Rehabilitation after active treatment has been completed
Terminal care
Counseling of the bereaved

6. The scope and pattern of practice of FM varies according to health system characteristics (organizational structure, financing, and payment systems), availability of specialist family physicians,

the extent and quality of the training of the family physicians, availability of primary care team members and presence of professional associations.

7. In most countries, family physicians play an important gate keeping role, with the family physician being the first point of contact in the health system, with the exception of some emergencies when a hospital emergency department or ambulance service may be accessed directly. In countries where the gate keeping function is well established, a patient cannot access a hospital specialist unless referred by a family physician. The gate keeping role of family physicians is well established in the UK, Netherlands, Australia, New Zealand, Finland, Canada, and within the Health Maintenance Organizations in the US.

8. In OECD and middle-income countries, the primary-secondary care interface is dynamic and changing, as are the boundaries that define the role of the family physician or hospital specialist. In OECD countries, the scope of activities undertaken by the family physician is expanding rapidly. Many hospital and outpatient services traditionally provided by narrow specialists have shifted to PHC setting. For instance, family physicians provide emergency care for conditions traditionally provided in hospital accident and emergency departments, manage chronic conditions in shared-care schemes, undertake hospital-care-at-home, or even manage community hospitals.¹⁷⁻¹⁹

9. In the UK, the roles and responsibilities of the family physicians are clearly defined and demarcated from the hospital specialists. In contrast, in the US and Canada, there is some overlap with specialists taking on primary care practitioner roles in outpatient clinics in hospitals, the so-called 'hidden primary care, and family practitioners undertaking hospital specialist roles.²⁰⁻²¹ For instance, in the US and Canada, family physicians are granted hospital privileges to admit and treat patients in hospitals. In Britain, Finland, and Australia, family physicians generally do not undertake inpatient care, and refer their patients to hospital-based consultants for both consultation and admission, but work closely with the hospital specialist to arrange follow-up of the patient after hospital discharge. In Britain, some family practitioners manage community hospitals and work in hospitals as associate specialists.

10. In OECD countries, most common acute first contact problems and common chronic illnesses are managed by family physicians. Typically these include chronic obstructive airways disease, asthma, hypertension, diabetes, cardiovascular disease, rheumatic disorders, benign prostatic hypertrophy, skin conditions (eczema, psoriasis) and mental health. This care is made possible by improved training of family physicians and diagnostic tools enabling near-patient testing.

11. In most systems, the family physicians provide family planning services and antenatal care. In the US, because of shortages of family physicians, family planning and antenatal services are also provided by an obstetrician/gynecologist.²²

12. In the US and Canada, family physicians are granted rights to manage normal deliveries in hospital or at home. In the UK and Netherlands, with a strong tradition of midwifery, many deliveries in hospital are managed by midwives, with hospital specialists overseeing the process in secondary setting. Family physicians, and sometimes midwives, in these countries undertake home deliveries for low-risk cases although this is becoming less common.²³

13. Family physicians usually manage sexually transmitted illness (STI) and many care for tuberculosis (TB) and HIV/AIDS patients, especially in the UK or Netherlands. In Japan, the Government contracts the family physicians to treat TB patients. Post-Soviet countries are exception, where 'dispensaries' staffed with specialists still manage STIs, TB and HIV. Mental illness, which accounts for 15.4 percent of the total disease burden in developed countries²⁴ and 20 percent of family physicians' workload, is effectively managed by family physicians.²⁵

14. Family physicians are increasingly involved in palliative care of patients with cancer, chronic obstructive airways disease, Alzheimer's disease, senile dementia and AIDS. A UK study found that breast cancer patients were more satisfied when returned to their family physicians for follow-up rather

than being followed in an outpatient oncology clinic.²⁶ Family physicians also play an important role in planning and aftercare of the patients discharged from the hospital, ensuring continuity of care, a hallmark of FM. 'Hospital at home' schemes in some countries such as the UK have made it possible to manage complications and rehabilitation of many conditions in the community setting.

15. As family physicians manage a diverse range of conditions in most countries, they are able to prescribe a wide range of drugs. In many countries, especially in rural areas where pharmacies are not available or not within easy reach, the family physicians also take on a dispensing role. This role is well established in Britain, Canada, and Japan. However, this practice sometimes has adverse consequences on patient care and cost. For instance, in Japan where the physicians earn a dispensing fee for each medication given to the patient, there is an incentive to increase the number of patient visits by dispensing relatively small quantities of multiple drugs.²⁷

1.4. ADVANTAGES OF HEALTH SYSTEMS BASED ON FM-CENTERED PRIMARY CARE

16. A review of the empirical evidence, derived from both developing and developed countries, demonstrates that health systems with strong FM-centered PHC are able to effectively discharge first contact, comprehensiveness, continuity and coordination functions, and perform well in relation to health system goals and objectives of improved health outcomes, equity, efficiency, effectiveness and responsiveness.²⁸

1.4.1. Population health and aggregate health expenditure

17. Strength of a country's PHC system (where family physicians play a key role) influences population health outcomes. Health systems with stronger PHC have better health outcomes.²⁹ This relationship is significant, even after controlling for determinants of population health at macro-level (GDP per capita, total physicians per one thousand population, percent of elderly) and micro-level (average number of ambulatory care visits, per capita income, alcohol and tobacco consumption). A higher PHC orientation of a health system is more likely to produce better population health outcomes at lower cost and with greater user satisfaction.³⁰

18. Absence of PHC is an important factor in determining poor health.³¹ Health systems dominated by narrow specialists, such as that in the US, suffer from higher total health care costs and reduced access to health care by the vulnerable populations.³²⁻³⁵ The high cost is attributed to proportionately low numbers of family physicians and consequent impairment of the gate keeping function.³⁶⁻³⁷ Services delivered by narrow specialists are higher in cost as compared with comparable services delivered by family physicians – due to curative orientation of narrow specialists who tend to use expensive technology, which pushes up health care costs without visible health gain at population level.³⁸

19. Recent evidence demonstrates that a higher ratio of family physicians to population results in lower overall mortality rates, as well as that for heart disease and cancer. By contrast, a higher ratio of narrow specialists to population does not improve mortality rates.³⁹

1.4.2. Equity and access

20. Within a developing country context, there is evidence showing that expenditure on PHC is more pro-poor than that expenditure on hospitals. Expenditure on PHC has a desirable distributive impact, improving equity and benefiting the poorer segment of the population proportionately more than the richer segment.⁴⁰⁻⁴¹ An orientation toward a health system based on narrow specialists enforces inequity in access.⁴² Diminished access to family physicians results in worsening health status of citizens.⁴³⁻⁴⁴

1.4.3. Quality and efficiency of care

21. Studies which compare care delivered by family physicians to that delivered by narrow specialists show that the quality and health outcomes are equal, even when family physicians substitute for secondary care specialists.⁴⁵ Family physicians are more likely than specialists to provide continuity and comprehensiveness, which help improve health outcomes.⁴⁶ Improved access to family physicians and

the gate keeping function they exercise lead to added benefits such as diminished hospitalization⁴⁷⁻⁴⁹, less utilization of narrow specialists and emergency centers⁵⁰⁻⁵¹, and reduced risk of being subjected to inappropriate health interventions.⁵² Evidence from a systematic review suggests that broadening access to family physicians in PHC can reduce demand for expensive and narrow specialist-led hospital care.⁵³

1.4.4. Cost effectiveness

22. In low-income settings PHC is cost-effective.⁵⁴ PHC activities, such as infant and child health, nutrition programs, immunization and oral hydration are ‘good buys’ when compared with hospital care,⁵⁵ and interventions delivered in PHC setting could avert a large proportion of deaths.⁵⁶ Even in resource-poor settings, it is possible to implement and sustain key PHC services.⁵⁷

23. Shifting care from narrow specialists to family physicians and from secondary to primary care has been shown to be cost-effective, without adverse affect on health outcomes.⁵⁸⁻⁶⁴

1.4.5. Patient satisfaction

24. The ‘Euro barometer’ survey of citizens of 15 EU Member States shows that countries with strong PHC systems tend to have higher public satisfaction with health care.⁶⁵ Patient satisfaction with family physicians is strongly influenced by the mode of care delivery, physician style, availability of out-of-hours care, having a named physician, continuity of care and provision of routine screening.⁶⁶⁻⁶⁹

1.5. FACTORS WHICH IMPACT THE QUALITY OF CARE DELIVERED BY FAMILY PHYSICIANS

25. Quality of care delivered by family physicians in PHC settings is influenced by a number of factors, including: (a) training in FM; (b) organizational arrangements -- management, extent of teamwork, interface with secondary care, resource availability, gate keeping role, information systems, provider networks; (c) financing and provider payment systems; (d) physician characteristics -- education level, age, gender, postgraduate education, CME, approach to care, importance afforded to status, degree of altruism, value system and beliefs; (e) doctor-patient relationship -- trust and the degree of asymmetry of information (Annex 3).

1.5.1. Impact of specialist training in Family Medicine on the quality of care delivered

26. There is good empirical evidence to suggest that vocational training and CME improves the knowledge, skills, competencies and attitudes of family physicians, which in turn benefits patient care.⁷⁰ There are limited studies that look at the impact of vocational training on patient outcomes, as most studies focus on assessment and achievement of trainees and their satisfaction with training.⁷¹ Additional training of general practitioners in patient-centered care resulted in greater attention to the consultation process with improved communication with patients, greater treatment satisfaction and well-being.⁷²

1.6. WHY FM-CENTERED PHC REFORMS IN ECA REGION?

27. Empirical evidence shows that health systems with strong FM-centered PHC can better achieve health system objectives of improved equity, efficiency, effectiveness and responsiveness. Further, having more narrow specialists or higher specialist-to-population ratios to family physicians offer no advantages in meeting health needs of the population and may lead to unnecessary care with adverse health consequences. However, despite this evidence, introduction of FM-centered PHC has been challenging. Even in countries with advanced health systems there is still much variation in extent of PHC services delivered and the experience of citizens.⁷³ In the ECA region, there is much room to enhance FM-centered PHC to deliver safe, effective, timely and patient-centered care. Many of the inherent challenges faced by the health systems in transition countries in the ECA region can be addressed if a strong FM-centered PHC system can be established.

2. METHODS

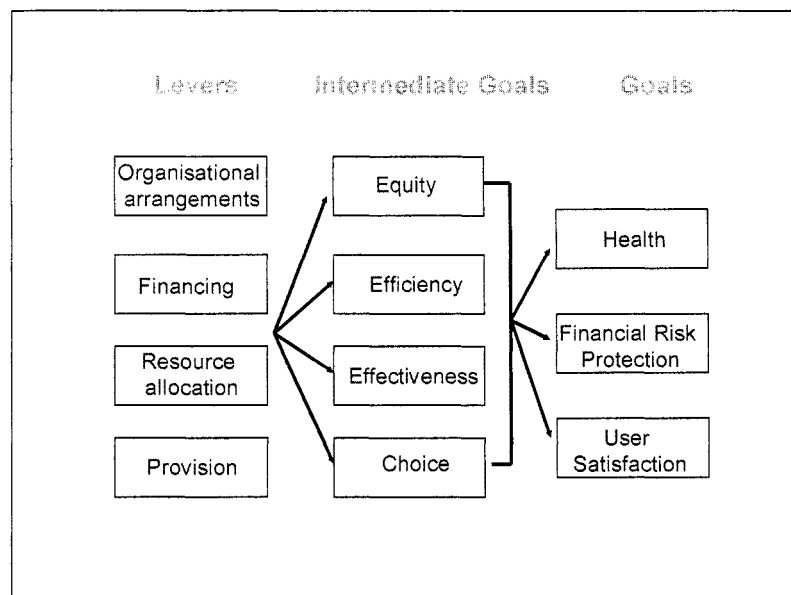
2.1. OBJECTIVES OF THE STUDY

28. The objectives of the study were to review the experience of FM in Europe and Central Asia, present best practices, and make recommendations for policy dialogue and future investments.

2.2. THE EVALUATION FRAMEWORK

29. The evaluation used a framework to analyze key changes in health system elements and intermediate goals in relation to primary health care (See Annex 4.)

Figure 1: A Framework for Analyzing Health Systems



Source: Atun RA and Lennox-Chhuggani

30. This framework builds on that developed by Hsiao⁷⁵ and identifies four levers, available to the policy makers and managers in health systems. Management and modification of these levers enables policy makers to achieve different intermediate objectives and goals. The ‘organizational arrangements’ lever refers to the policy environment, stewardship function, and structural arrangements in relation to funding agencies, purchasers, providers and market regulators. Financing and resource allocation levers refer to resource collection, pooling, allocation, and the mechanisms and methods used for paying health service providers. The ‘provision’ lever refers to the ‘content’ – the services provided by the health sector rather than the structures within which this ‘content’ is delivered. The intermediate goals identified in the framework -- equity, technical and allocative efficiency, effectiveness and choice -- are frequently cited by others as end goals in themselves. However, in this framework efficiency, equity, effectiveness and choice are taken as means -- contributing to attainment of the health sector’s ultimate goals of health, financial risk protection and user satisfaction.

31. An important finding of literature search and initial country visits was the lack of systematically collected data at PHC level; hence, primary research was undertaken to generate original data to complement secondary research findings.

2.3. PRIMARY RESEARCH

32. Primary research comprised three elements: (i) qualitative research, (ii) primary health care facility survey, and (iii) physician task profile survey.

2.3.1. *Qualitative research*

33. Qualitative research involved key informant interviews to explore their understanding of the goals and objectives of the reforms, changes in structures and processes, key enabling factors and obstacles to reforms, major achievements and lessons learned, and to ascertain their perceptions of the FM reforms, critical success factors, barriers and enablers which influenced the introduction and diffusion of FM reforms.

34. A semi-structured questionnaire was specifically developed for the study for face-to-face in-depth interviews of key informants. The questionnaire was piloted initially in Estonia, then refined and iteratively tested in the four countries studied. Purposive sampling was used over two stages.⁷⁶ An initial set of key informants was interviewed for the first stage of the study using a semi-structured questionnaire. The data emerging from the initial set of interviews were analyzed to identify key emerging themes, which were explored further using a refined and shortened topic guide to allow in-depth exploration of some of the key themes.⁷⁷ The second stage also employed 'purposive sampling' with 'snowballing' to capture a multi-level, multi-stakeholder sample of key informants, representing the key stakeholders involved in PHC reforms in both policy development and implementation.

35. The analysis informed the detailed case study by capturing key structural and process changes, issues related to design and implementation of PHC reforms, the drivers and barriers to reform, the factors influencing the establishment of an enabling environment for change and the lessons learned.

2.3.2. *Primary health care facility and physician task profile surveys*

36. These two elements of primary research were done concurrently to explore changes in service delivery and practice of family physicians as a result of the PHC reforms and training of physicians as FM specialists. It was not possible to do a pre- and post-intervention study as there were no baseline studies that analyzed service delivery patterns and physician practices before and after the reforms. Two cross-sectional studies were conducted simultaneously: (i) primary health care facility survey, and (ii) physician task profile survey. PHC directors were interviewed for the Facility Survey and doctors working in the PHC facilities for the Task Profile Survey. A two-stage sampling was followed with probability proportional to size. Regions were selected based on the relative stage of development of FM/PHC reforms (advanced, intermediate and early/low) and geography (urban/rural). In the second stage of sampling, a random sample of PHC facilities was used, proportional to the size of the population served in the region. Around 100 PHC facilities and 200 doctors working within these facilities were surveyed in each of the four countries.

2.3.3. *PHC provider facility survey*

37. A facility survey instrument was developed by the research team specifically for the study, drawing on guidance and methodologies developed by the World Bank and other international agencies.⁷⁸ The instrument was refined following discussions with local collaborators to ensure appropriateness to the local context and field-tested before application in the countries included in the study (Annex 5). The instrument was coded and a computer program was written in Access® for data entry and analysis. The researchers performed statistical analysis to test for observed differences.

2.3.4. *Survey of task profiles of family physicians*

38. The second component of the primary research was a cross-sectional survey of the 'Task Profiles of Family Physicians' aimed to identify the scope and availability of services and skills of doctors working at PHC level and to explore similarities and differences between FM specialist and non-specialist GPs. An instrument developed by the NIVEL Group in the Netherlands was used. This was validated in

32 European countries.⁷⁹ The instrument is available in Russian (Annex 6). The instrument was obtained from the author, Dr W. Boerma, and with his permission used in the study after minor modifications following field-testing to ensure contextual sensitivity.

2.4. SECONDARY RESEARCH

39. Secondary research comprised: (i) a review of published international and in-country literature to ascertain key legislative changes related to the reforms and to identify changes in financing, resource allocation, provider payment systems, organizational changes and regulation, and service provision, and (ii) where available, analysis of cross-sectional and longitudinal referral and admission data.

2.4.1. Literature review

40. The literature review was supplemented by documentary analysis of published reports, key legal instruments and policy documents from the four countries, WB publications (including missions' aide memoires), Health Systems in Transition (HIT) reports published by the European Observatory on Health Systems Research, and relevant studies on WB HNP projects in the ECA region.

2.4.2. Quantitative analysis

41. Secondary research involved aggregation and analysis of quantitative data (cross-sectional and, where available, longitudinal data) from studies undertaken in the country, from the routinely collected statistics and from Health Insurance Funds. Drawing on internationally validated instruments and indicators, key outcomes influenced by effective delivery of PHC -- for conditions commonly managed in PHC, such as acute respiratory illness, anemia, diabetes, ischemic heart disease, hypertension and heart failure -- were analyzed.⁸⁰ (Annex 7.)

3. CASE STUDY OF ARMENIA

42. This chapter summarizes the findings of a detailed case study of FM reforms in the Republic of Armenia, which is published as a separate volume.⁸¹

3.1. BACKGROUND

43. The Republic of Armenia inherited a health system based on the Soviet Semashko Model characterized by centralized and hierarchical organization and a large provider network with a curative focus, dominated by hospitals and with poorly developed PHC level. The system was characterized by parallel sub-systems for line ministries and large organizations; fragmented delivery model in PHC with a tripartite polyclinic system staffed by narrow specialists, which provided services separately for adults, women and children, as well as a large number of vertical programs delivered by narrow specialists.

44. The health system suffered a number of shortcomings, such as: (i) overly specialized and fragmented care, poor physical condition of health facilities, and lack of modern equipment; (ii) excess human resources concentrated in cities; (iii) inequitable resource allocation based on historic activities and inputs which favored large hospitals in urban centers at the expense of rural areas; (iv) line-item budgeting of provider units and salary-based payment systems, which encouraged inefficiency and discouraged improved performance; (v) care delivery protocols, which encouraged excessive referral to secondary care level; and (vi) limited user empowerment, where the citizens were allocated to doctors and unable to exercise choice of providers.

45. Following independence, economic recession led to a rapid decline in the level of public funding available for the health system, which fell to around 1 percent of the GDP, thereafter increasing to 1.4 percent in 2004. This resulted in a substantial funding gap between the level of financing needed by the health system and the available resources. From 1995 onward, the Government sought to introduce multifaceted health reforms centered on developing a strong PHC system to address organizational complexity; excess infrastructure and human resources; allocative inefficiency and inequities in financing; inefficient service provision; limited incentives; and low pay levels for health personnel.

3.2. KEY ACHIEVEMENTS

3.2.1. *Organizational and regulatory changes*

46. Despite a highly resource-constrained environment, Armenia has been able to introduce the FM-centered PHC reforms to parts of the country and achieve structural changes with separation of purchasing and provider functions. Several key laws have been enacted to create an enabling environment to develop the health system. In 1996, the Government approved the “Program for development and reform of the healthcare system in the Republic of Armenia”, with a special focus on financial reforms,⁸² followed by the Medical Care Act.⁸³ The latter act introduced mixed financing of the health system enabling health providers to mobilize funds from various sources, including local budgets, external aid, health insurance payments and direct private out-of-pocket payments, which were introduced in 1997 for the majority of health care services beyond the basic package applicable to all non-vulnerable and non-targeted groups of the population.

47. Subsequently, all State health care establishments were granted the status of ‘state enterprises’ and transformed into ‘state owned closed joint stock companies’ in 2000. During the same period, polyclinics were given an autonomous status and were no longer subordinated to hospitals and defined as the primary care level of the health system.

48. In 1998, the PHC Working Group established under the Bank-financed Health Financing and Primary Health Care Development Project drafted the provisions on “Family doctors” and “Family nurses”. The “Family Doctors Provision Guidelines” were approved in 1999 and provisions adopted in

2000.⁸⁴ In 2003, the Government adopted a decree outlining a new PHC Strategy for the Republic of Armenia, outlining the Government's vision for developing PHC between 2003 and 2008.

49. Family medicine is recognized as a specialty in Law. The scope and content of FM services have been articulated in law and defined in detail in the State Guaranteed Basic Benefits Package. In some regions of the country, the tripartite system of pediatric, women's and adult polyclinics has been consolidated into unified PHC centers. Three FM training centers and many PHC centers in the pilot marzes have been refurbished and now provide unified services for adult men and women and children.

50. New PHC provider organizations have autonomy to manage budgets and contract with the State Health Agency (SHA), which was created in 1997 to assume a strategic purchasing role. In effect, the integrated public health system based on the Semashko Model has been replaced by a public-contract model: with the SHA acting as the purchaser from a network of semi-autonomous provider units providing a publicly funded 'basic package' of services and additional services not covered by this package, which must be paid through out-of-pocket from private means. The gate keeping function of PHC has been established with family physicians acting as the first point of contact for patients in reform areas. In areas where the reforms have not been introduced, users are able to access narrow specialists, hence fragmenting first contact and gate keeping functions of PHC.

3.2.2. Financing, resource allocation and provider payment systems

51. Health system financing is mixed, but public sector expenditure is low by European and regional standards. Data from the WHO Health for All Database suggests that, between 1997 and 2001, health expenditure from private sources accounted for 60 to 65 percent of total expenditures while from the public sector they ranged from 30 to 40 percent. The Bank estimates the total health expenditures in the same period to have been between 1.43 and 1.34 percent of GDP while the health public expenditures relative to the State budget expenditures were 5.6 percent in average for the mentioned period. The target for 2015 set in the PRSP is 2.5% of GDP for public expenditures and 4.6–5.3% from private sources.

52. Traditionally, the amount of funds allocated to PHC have been low and have represented less than 20 percent of the total public health expenditure. However, in recent years, the Government has increased public funding for PHC at the expense of hospitals allocations. During the period 2002 to 2004, public sector expenditure for PHC and polyclinic base ambulatory services increased from 20 to 28 percent of the total while that for hospitals declined from 57 to 48 percent.

53. The provider payment systems have changed from line-item budgeting to payment for volume of services for hospitals and to a weighted per capita mechanism augmented by fee-for-service payments for PHC level. Primary health care providers also receive payments from non-vulnerable populations in the form of user fees for services outside the BBP and fees for home visits and payments for diagnostic tests. In addition, there are 'unofficial fees' and in-kind payments, but the extent of these payments are not quantified. In the areas where the Bank-financed project was implemented and where the PHC services were provided by family physicians, the extent of informal payments has been shown to be less as compared with control regions. Project studies showed that the informal payments for medical examinations were less in project sites as compared with control areas.⁸⁵ Further, following the introduction of the BBP, the affordability of PHC services increased.

54. The perceived quality of health services provided by PHC centers with family physicians is higher than those PHC units that do not have family physicians. The shift from line-item-budgets for hospitals to contracts with a global budget based on volume of services (number of hospital cases treated) has helped remove perverse incentives created by input-based payment system for hospitals, which encouraged frequent and lengthy hospitalization of patients. The new payment system has helped the rationalization of the hospital sector, with the number of beds per 1,000 population declining from 8.4 in 1992 to 4.25 in 2001.

3.2.3. Resource generation

55. There are three public teaching institutions with FM departments: (i) in Yerevan State Medical University (SMU) where the Faculty of FM was founded in 1997, and the Chair of FM was established with two full-time and 11 part-time teaching staff with responsibility for both UG and PG teaching in FM; (ii) the National Institute of Health (NIH), established in 1992 through merger of several research and continuing medical education institutes. NIH is responsible for postgraduate training of doctors and nurses. The Chair of FM was created at the NIH in 1997; (iii) Yerevan Basic Medical College (BMC), a nursing college dedicated to training of family nurses. In addition, both NIH and SMU utilize six other training centers as training bases for family medicine.

56. In 1995, the Pediatric Faculty at Yerevan State Medical University was closed as part of the educational reforms, which aimed to create a general medical education program. The role of FM is defined in law, which recognizes FM as a medical specialty. A Unified Curriculum for Family Medicine, comprising 33 modules and developed in 2002 by the Armenian Association of Family Physicians with support from the World Bank and the USAID-funded Social Transition Project (implemented by Abt Associates), was adopted in July 2003 by the Ministry of Health. (The Ministry of Health of Armenia, Order No 613, 21st July 2003). The Unified FM Curriculum has been fully adopted by NIH and is also utilized by the SMU. The curriculum is regularly reviewed by the Armenian Association of Family Physicians. In addition to the Unified FM Curriculum and respective curricula at SMU and NIH, there is a clearly articulated 'Procedure for training and assessment of FM physicians' adopted by the Boards of Education Methodology in the SMU and NIH.

57. There are now two routes to train as a family physician: (i) an 11-month retraining program for doctors trained in the Soviet system and currently working in PHC delivered by the SMU and supported by the Bank-financed Health Project. This was accredited by WONCA to be of internationally acceptable standard and (ii) a two-year FM residency program for medical graduates who qualified recently. In addition, the Ministry plans to introduce a system of continuous training for FM physicians..

58. It is estimated that around 350 family physicians have already graduated from SMU and NIH. At present, a further 120 physicians are in training at both institutions. The objective of the Government is to retrain around 160 family physicians each year to reach the target of around 1200 family physicians in the next five years. In addition, 150 general nurses have been retrained as family nurses. The number of family physicians and nurses meets 23 percent of the numbers needed in Armenia (about 1500 FM physicians is a total need for the country).

3.2.4. Professional associations

59. The Armenian Association of Family Physicians was founded in 1999. It is actively involved in development of FM and PHC, and plays an important advocacy role, establishing standards and working with the Government to develop guidelines.

3.2.5. Service provision

60. Primary health care is typically delivered through regional polyclinics or rural ambulatories with one physician per 1200–2000 population and one pediatrician to 700–800 children. In rural settings with less than 2,000 population, the Primary Health Care services are provided through health posts/feldsher stations. There are 37 regional general polyclinics, most of which employ a PHC team that includes a general physician, an obstetrician/gynecologist and a pediatrician, as well as nurses and midwives. These polyclinics typically offer: (i) general ambulatory care for the adult and elderly population; (ii) antenatal, obstetric and prenatal services; (iii) pediatrics, basic investigations, minor surgery; (iv) rehabilitation; (v) home visits; and (vi) health education. In addition, larger urban areas, in particular Yerevan, also have specialist polyclinics for children and women with reproductive problems. In 1998, the polyclinics,

which were previously attached to regional hospitals, were granted autonomous status. Around 500 medical posts, or feldsher stations, typically one in every village, offer a nurse-led service which includes basic care of children and adults, antenatal care, developmental checks for infants, prescribing, first aid, home visits and immunization and health education. Clusters of villages share PHC centers staffed by a general practitioner or a family physician, which offer a broader range of PHC services as compared with rural posts.

61. Delivery of PHC services in Armenia is fragmented as it is provided by a number of different health professionals: (a) family physicians, district therapists and pediatricians providing PHC services in rural ambulatories or polyclinics in towns and cities; (b) gynecologists and nurses who provide ante-natal and post-natal care; (c) a large number of narrow specialists who provide 'specialist services' for chronic conditions; and (d) dispensaries (specialized outpatient facilities) for TB, oncology, mental health, dermatovenereology, endocrinology and narcology services.

62. A State Guaranteed Basic Benefits Package (BBP) has been introduced for the entire population and provides free PHC services for all citizens, regardless of their status. An expanded BBP exists for the vulnerable population. With the reforms, the first contact function of the PHC has been enhanced with the requirement that patients wishing to see a narrow specialist need to have referral from a PHC physician. However, despite this change, the old practice of self-referral to narrow specialists, especially to those in hospital, prevails.

63. There is excellent coverage of immunization. Basic PHC services are provided throughout most of the country, although access in rural areas remains a problem. Although users now have the freedom to choose their family physicians, limited number of physicians in rural areas limit this choice. Evidence-based guidelines for family physicians have been introduced for 127 common conditions encountered in PHC as well as 56 guidelines for FM nurses. This will enhance quality of PHC services delivered, reduce unnecessary interventions and diminish referrals to hospitals.

64. The task profile analysis shows clearly that in the polyclinics and rural PHC centers, which have introduced the FM model, the scope and content of services have significantly expanded. There is increased health education, disease prevention and promotion services; enhanced gate keeping; more frequent application of medical techniques and procedures; expanded management of key first contact and chronic conditions as compared with low reform areas where the FM model has not been introduced.

65. Analysis of the referral data shows a decline in the number of hospital referrals from PHC centers staffed by family physicians for key acute and chronic conditions typically managed in PHC setting. These findings demonstrate that FM reforms changes are having the desired benefits of enhanced care management in PHC setting with reduced referrals to hospital -- with consequent improvement in efficiency and effectiveness.

3.3. REMAINING CHALLENGES TO BE ADDRESSED

66. In its PHC Strategy for 2003-2008, the Government has identified that key weaknesses of the existing PHC system to be: (i) inadequate knowledge base and skills of doctors working in ambulatories; (ii) poor infrastructure and equipment; (iii) poor integration of general medical, pediatric and obstetric services; (iv) inadequate provision of preventive measures, especially for non-communicable conditions; (v) approach to care, which fails to focus on the family as the unit of intervention; (vi) poor coordination of key functions; (vii) inefficient use of limited financial resources; and (viii) lack of financial incentives to further develop services. Further progress in introducing FM based PHC requires important decisions on the policy level, like open enrollment, clear legal standing for family practices - independent (autonomous) solo or group practice and performance-based reimbursement schemes.⁸⁶

3.3.1. Organization and regulations

67. The contracts between the SHA and providers do not adequately recognize the contribution made by family physicians or provide incentives for them to expand their services. The contracts, based on per capita payment mechanisms, need to be augmented to include quality and performance criteria and commensurate incentives to reward FM teams and PHC centers.

Organizational structure

68. The tripartite provider system at PHC level has not yet been consolidated to give way to new PHC units that provide unified services by family physicians for all citizens. Polyclinics are still staffed by pediatricians and general therapists, as well as narrow specialists.

Uncertain regulatory environment and support

69. The evaluation of the Bank-financed project highlighted the difficulties faced by PHC providers due to deficiencies in the regulatory environment, especially as regards the tax code and social insurance contributions for the employees, which led to excessive taxation of the providers and requests for social insurance contributions for employees for amounts that were higher than the employees' salaries.

Limited autonomy

70. At present, FDs do not have a legal standing with a dedicated budget line that recognizes FM as a distinct specialty. Instead, FDs reclaim reimbursement for services as "other physician".

Poor infrastructure

71. Except for the centers that have been refurbished during the implementation of the Bank-financed Health Project, the capital stock in PHC is run down. The majority of polyclinics and rural ambulatories need to be equipped and renovated.

Excess paperwork

72. As in other post-Soviet countries, PHC level is overburdened by paperwork. There are approximately 400 forms at PHC that need to be completed to report activity levels as well as public health parameters. Typically, a PHC physician who sees 25 patients a day spends approximately 2 hours a day to fill in forms.⁸⁷

Monitoring and evaluation

73. There is no monitoring of quality levels in PHC or systematically collected data that can be analyzed to demonstrate if there have been changes in key reform objectives.

3.3.2. Service provision

Access

74. Although the patients have the right to choose their PHC physician, uneven distribution of human resources, with staff shortages in rural and mountainous areas, makes it difficult to exercise this choice. Inequitable access remains a fundamental problem: limited accessibility of services compounded by a large proportion of the population who are unable to afford out-of-pocket payments for services. Although, officially, PHC services in polyclinics are free of charge, the providers frequently request unofficial payments for their services. These out-of-pocket payments deter use of polyclinics as both the amount of payment and the quality of service are unpredictable.⁸⁸

Fragmentation of PHC Services

75. Many PHC services that could be provided by family physicians or generalists are still provided by narrow specialists. Further, in Yerevan, PHC services are still provided in a tripartite model from

adult, women consultations and pediatric polyclinics. These structural arrangements fragment key PHC functions of gate keeping, continuity and comprehensiveness, and reduce efficiency and effectiveness of the PHC level.

Integration, continuum of care and referral systems

76. There are few incentives to achieve a substantial secondary-to-primary shift and develop extended primary care to move beyond a gate keeping role.

Difficulties in Practicing Family Medicine

77. Trained family physicians who participated in the evaluation of the Bank-financed project identified a number of obstacles which prevent them from optimally discharging their duties and effectively integrating into PHC system. These include: overcrowding of polyclinics with general physicians, pediatricians and narrow specialists, and consequent competition; insufficient numbers of patients registered with family physicians; insufficient financing; low salaries; lack of medicines; and inadequate technical resources.

3.3.3. Resource generation in PHC

78. Although a large number of physicians and nurses have been trained in FM, this represents only 23 percent of what is needed in Armenia and training needs to be scaled up. A further concern relates to the aging workforce in PHC: 30 percent of rural physicians and nurses and 20 percent of physicians and nurses in Yerevan are above 50 years of age.

Limited capacity for scale-up of family medicine

79. Limited resources to train family physicians have been identified as a major constraint to PHC development. Although good capacity exists in the three main training institutions, this is not adequate to meet the needs of Armenia.

3.3.4. Resource allocation and provider payment systems

Incentives

80. Lack of incentives and poor salary levels of FM specialists are two major problems that need addressing in immediate term. The current remuneration system does not adequately distinguish between family physicians and traditional PHC providers (adult physicians and pediatricians) and does not confer privileges which are given to narrow specialists (such as the possibility of attracting user fees). Hence, many family physicians question whether additional retraining of 11 months improves their prospects in the health system. This dampens the enthusiasm of doctors to enter residency programs and of narrow specialists to retrain in FM.

81. Inclusion of trained family physicians in the PHC system is more difficult in urban than rural areas as the urban PHC providers have the specialists they need. This problem is compounded by the provider payment systems for government-subsidized services, as the services of a family physician are government-subsidized and cannot be rendered for a fee, while specialists are a major source of income for the polyclinics and receive preference.

Equity and allocative efficiency

82. Major differences in access to services and funding exist. Resource allocation does not reflect health needs or poverty levels and there are clear differences in the level of resources provided to urban and rural regions.

3.3.5. *Communicating the reforms*

Poor awareness

83. The benefits of an FM-centered PHC system are not adequately communicated to citizens and health professionals. There is, hence, a limited understanding of FM and modern PHC among health professionals, citizens and politicians. In particular, the awareness of health reforms and role of the family physician among the general population in Armenia is low.⁸⁹

Opposition to reforms

84. Narrow specialists, who work in PHC and in hospitals, and managers oppose the introduction of FM-centered PHC are a key barrier to further development of FM in Armenia. There are misperceptions of FM among some health professionals who see this as a retrograde step from the 'advanced' Soviet medicine.⁹⁰

3.4. CONCLUSION

85. The achievements in Armenia are commendable. Although many problems remain, much has been achieved in a resource constrained environment and platforms have been put in place to further develop PHC. To date, introduction of FM and PHC reforms in the target regions has been successful. Platforms are in place to accelerate the pace of reforms through a second phase of development, particularly to: (i) further broaden the role of family physicians and the scope of services they deliver; (ii) introduce more flexible contracts with incentives to improve performance, quality, and provide additional health promotion, prevention and extended PHC services by family physicians; (iii) increase remuneration for family physicians and nurses; (iv) refine resource allocation mechanisms to reflect need and enhance equity; (v) place more emphasis on evidence-based medicine; and (vi) change reporting mechanisms in PHC, which reinforce the old tripartite model and hinder unified service provision. Much needs to be done to consolidate achievements and expand the reforms. Strong political support and technical assistance for the next phase of reforms is critical to sustain what has been achieved.

4. CASE STUDY OF BOSNIA AND HERZEGOVINA

86. This chapter is summary of a detailed study of FM reforms in Bosnia and Herzegovina (BIH) which is published as a separate volume.⁹¹

4.1. BACKGROUND

87. The four-year war between 1992 and 1995 caused widespread physical damage and had a devastating effect for BIH. Over 10 percent of the population was killed or wounded. Over two million people, nearly half the pre-war population, were forced from or chose to leave their homes and became refugees, either abroad or displaced internally within BIH. Two-thirds of homes were damaged, with one-fifth totally destroyed. An estimated 30 to 40 percent of hospitals and 70 percent of schools were destroyed or severely damaged and 30 percent of health care professionals and a similar share of teachers were lost to death or emigration. The economic situation deteriorated rapidly during the war. The economy collapsed and the per capita GDP fell five-fold from US\$2,429 in 1990 to US\$456 in 1995. Economic growth resumed in 1996, and since 2000, GDP growth has been stable at around 5 to 6 percent.

88. Following four years of civil war, under the 1995 Dayton Agreement, different levels of government were established in the Federation of Bosnia and Herzegovina (FBiH) and in Republika Srpska (RS): (i) at the highest level, the State of Bosnia and Herzegovina (the State); (ii) at the next level two constituent political Entities of the FBiH and RS covering 51 percent and 49 percent of the land area of BIH, respectively; (iii) FBiH was divided into ten cantons, which in turn were divided into municipalities. In the RS, no cantons were established and the local government was assumed directly by municipalities. In addition, Brcko, with three municipalities, was designated a separate district. This led to premature decentralization of the health system with consequent problems which persist to date.

89. The war and subsequent economic crisis led to significant unemployment and poverty levels. In 1997, around one-quarter of the population was classified as poor, and 15 percent were classified as extremely poor. In the post-war period, the population suffered significant posttraumatic stress due to ravages of the war, the subsequent socioeconomic crisis, unemployment, migration and displacement. However, general population indicators such as infant mortality, under five mortality and life expectancy have remained stable.

90. The former Federal Socialist Republic of Yugoslavia had a well-developed health care system with a large and high-quality provider network. The population health indicators were comparable to those of OECD countries. BIH had a well-established network of PHC centers comprising dom zdravljas (DZ), doctor's offices for ambulatory PHC services, and first aid and emergency service units. Each municipality had its health center (a DZ) which coordinated a network of smaller PHC community facilities (as outposts of the DZ). The DZ was located in the main city or town and the smaller clinics (ambulantes) in smaller communes and villages. There were 109 DZ, each covering a commune of 30,000 to 50,000 inhabitants. These coordinated 900 doctors' offices (ambulantes), were usually staffed by one doctor and a few nurses, which provided basic and first-line services to local populations.

91. Within the DZ, PHC was divided into seven distinct functions: (i) general practice, (ii) occupational medicine, (iii) pre-school pediatrics, (iv) school pediatrics, (v) gynecology/obstetrics, (vi) laboratory/X-ray, and (vii) Hygiene and epidemiological unit. The PHC system was coordinated by the Ministry of Health & Social Affairs, and supplemented by additional health clinics that served special groups – such as the police, military personnel, etc. In addition, almost each large company had organized its own health services.

92. Following the war, the health system could no longer be sustained because of the destruction of the infrastructure; a mismatch between health needs and health services; inequitable access to health services; refugees, internally displaced persons, wounded and disabled people; low income and poor working conditions for health professionals with consequent low morale; fragmented PHC level with

multiple providers; poor coordination between care providers; and absence of a sustainable health finance system with excessive, but ineffective health expenditures.

93. The post-war reconstruction and development programs in both Entities (FBIH and RS), supported by the Bank-financed Basic Health Project, aimed to develop a Basic Health Program comprising: (i) a PHC system in demonstration sites based on the FM concept; (ii) a shift from the pre-war emphasis on large hospitals and polyclinics toward more efficient use of outpatient facilities and home-based care; and (iii) a greater emphasis on cost-effective public health, disease prevention and control. Policy and strategy documents were developed to articulate objectives and plans and laws enacted to create an enabling environment for the FM-centered PHC reforms to progress.

4.2. KEY ACHIEVEMENTS

94. Within a short period, despite a complex post-conflict and resource-constrained environment, there have been remarkable achievements in FM/PHC reforms in both entities. There is strong high-level and local support for FM reforms with significant financial contributions by cantons and municipalities – as counterpart financing – toward refurbishment of FM ambulancias in the demonstration sites.

95. There is a genuine attempt to institutionalize the changes introduced in the demonstration sites supported by the Bank and other agencies (CIDA, Swiss Cooperation) by developing appropriate legal frameworks -- creating an enabling environment for the FM-centered PHC model.

4.2.1. Organization and regulation

96. Several laws have been enacted to define health system objectives and strategy, and to support development of FM. For instance: (i) FM is recognized in Law as a specialty; (ii) team-centered FM model has been developed and team composition defined; (iii) the scope and content of FM services have been defined; (iv) FM teams can legally contract ‘directly’ with Health Insurance Institutions or ‘indirectly’ with the DZ to deliver PHC services.

97. Organizational changes have enhanced the gate keeping function of PHC, with the FM team acting as the first point of contact for patients, improve user-centeredness of services and provide a greater choice for users. For instance: (i) users now have the freedom to choose their family physician; (ii) a large number of FM centers have been refurbished in the pilot sites of both entities to create ‘patient friendly’ and functional PHC units; (iii) appointment systems has been introduced in the PHC that have adopted the FM model; and (iv) electronic data collection systems are being developed in the demonstration PHC centers to address serious shortcomings in monitoring and evaluation systems.

98. Agencies for Accreditation and Quality Improvement have been established in both Entities to accredit health care providers. These agencies have trained assessors, developed appropriate tools and mechanisms and have already undertaken accreditation of some FM centers. The Law on Medical Chambers has enabled the establishment of medical chambers that have the responsibility for licensing and revalidation of all practicing doctors.

4.2.2. Financing

99. The health expenditure is around 12 percent of the GDP, and high by OECD and ECA Region and for a country at the stage of economic development as that of BIH. Expenditure comes from mixed revenue sources, predominantly from the health insurance premiums collected as a salary-tax, budget transfers from each entity, State transfers, and out-of-pocket payments. The pooling is fragmented, with a single Health Insurance Fund in RS and 10 Health Insurance Institutes in the FBIH, i.e. one in each canton.

4.2.3. Resource allocation and provider payment systems

100. The Cantonal Health Insurance Institutions and RS Health Insurance Fund have a target of allocating 40 percent of the health insurance expenditures to PHC. In 2004, this amounted to 43 percent

of the CHII expenditure in FBIH and 23 percent of the HIF expenditure in RS -- a high proportion compared to other countries in the ECA Region and OECD. In addition, as noted earlier, there has been significant local counterpart investment to refurbish infrastructure for FM Ambulantas.

101. New provider payment mechanisms, based on simple and weighted per capita models, have been successfully introduced in the demonstration sites to contract FM teams. It is too early to judge the effect of new provider payment mechanisms, but qualitative research findings suggest that new models used in the demonstration areas are perceived to be more meritocratic and transparent. Direct and indirect contracts between the CHII/HIF and DZ/FM teams have been successfully piloted – one pilot includes performance related pay element in addition to per capita pay. The contracts specify the scope of services to be provided by FM teams, and include in RS incentives to provide health prevention and promotion services and to demonstrate increased quality through accreditation by the AAQI.

4.2.4. Service provision

102. In the demonstration sites that have introduced the FM model, the scope and content of services have expanded significantly. The task profile survey demonstrates statistically significant difference in the breadth of preventive, first contact and chronic disease management services provided by FM specialists as compared with non-specialist GPs. There is strong evidence from the qualitative research undertaken as part of the study that the new model is welcomed by the users. Many of the key informants identify benefits of the new system for the users, such as: user-centeredness of the model; holistic approach to health and the person; emphasis on health education, promotion and prevention; having a named doctor; user choice; more comprehensive nature of FM model empowerment of FM team to increase quality; and an increased emphasis on teamwork with enhanced continuity.

Expanded health education, promotion and prevention

103. Family physicians, as compared with GPs without training in FM, demonstrate a clear shift from curative biomedical care model to one which emphasizes disease prevention, health promotion and holistic care. The task profile survey shows statistically significant difference in the level of health education, promotion and prevention activities delivered by family physicians as compared with GPs. Qualitative research findings identify the provision of health promotion, education and prevention activities as key strengths of the FM model and valued by users and FM providers. The emphasis on health education, promotion and prevention is encouraged through contracts between the HIF/HII and the FM teams. For instance, in RS, contracts between the HIF and PHC centers stipulate a penalty for failure to perform specified preventive tasks and include a bonus payment for promotion and prevention activities.

Management of first-contact conditions

104. Both FM physicians and GPs ‘usually’ manage many of the common conditions encountered at PHC setting, but family physicians are more likely to manage several of the first-contact conditions as compared with GPs with no FM training. This difference is statistically significant. The study demonstrates that family physicians provide more comprehensive care as compared by GPs and have adopted more psychosocial approach to care.

Management of chronic conditions

105. The task profile survey shows a greater involvement of FM specialists, as compared with GPs with no FM training, in the management of several key chronic conditions. This difference in breadth of service provision is statistically significant and signals that the FM specialists are applying the knowledge and skills gained during their training.

Secondary to primary shift

106. There is, as yet, no evidence to demonstrate a shift from secondary to primary level, a decline in the number of hospital admissions, and a reduction in the length of hospital stay. The health information

systems do not capture information on referral patterns. Unfortunately, there has been no base lining or subsequent monitoring and evaluation to undertake pre- and post-intervention comparison in pilot and non-pilot sites to ascertain the impact of FM.

Teamwork

107. A FM model based on teamwork has been introduced. This is in contrast to many countries in the region that have developed FD-centric PHC models. The teamwork approach is highly valued by the members of the FM team, who identify benefits such as improved productivity and communication.

Evidence-based care guidelines

108. Evidence-based guidelines have been introduced for 20 common conditions encountered in PHC. This will enhance quality of care delivered but also reduce unnecessary interventions.

4.2.5. Resource generation

109. Chairs of Family Medicine have been established and are functioning within the three of the four Faculties of Medicine in – Banja Luka, Mostar and Tuzla. Curricula for Specialist Training in FM, based on internationally recognized principles, were jointly developed in 1999 by the Faculties of Medicine in BIH, and adopted by both the FBIH and RS. The details of the curricula are published in both entities in the Rulebooks for FM, which specify the content and methods of training for specialist and in-service FM training programs delivered by the FM Chairs. Three training programs exist for FM: (i) three-year FM Specialist Training Program for new graduates with no work experience; (ii) two-year training program for PHC doctors who have less than 10 years' work experience, and doctors who have over 10 years of work experience and who have been granted the 'Certificate of Doctor of Family Medicine'; (iii) one-year in-service Program for Additional Training (PAT) for those who already have had training in related specialties and have a certificate from the Federal Ministry of Health recognizing their specialty.

110. The FM training programs have been successfully implemented in both entities. Regardless of the source of financing, the same curricula are used for FM training, in contrast to the period prior to the Basic Health Project when varied approaches and several curricula were used in programs funded by different donors. By June 2004, 80 FM trainers had been trained and a total of 368 health professionals (173 doctors and 195 nurses from both entities) completed the PAT in FM in programs supported by Swiss Development Corporation (SDC). In addition, by 2005, with donor support from CIDA, Swiss Cooperation and the European Union (EU), FM specialists and PAT programs will graduate 1215 health professionals, including 410 FM specialists, 212 doctors trained in PAT, 465 nurses trained in PAT, and an additional 141 nurses trained in FM training courses. In addition to the WB, SDC, EU and CIDA supported programs, a further 85 doctors have been trained in FM in programs supported by MSF-Belgium, WHO and PHARE. The FM teams trained in both entities now cover in total 23 percent of the entire population of BIH.

111. As of June 2004, 18 generations of 6th year medical students (representing over 750 medical students) have received education in FM. Health Management Centers have been established and fully refurbished in both entities with support from the Bank-financed BHP. A cadre of 30 trainers has been trained in training of trainers program. In addition, around 150 middle- to senior-level managers have been trained in modern health management subjects (111 managers in FBIH and 38 in RS).

Professional associations in FBIH

112. Associations of Family Medicine Physicians were established in 2000 in both entities and in 2002 accepted to the membership of the World Family Medicine Association.

4.3. REMAINING CHALLENGES TO BE ADDRESSED

4.3.1. Organization and regulation

Asymmetry in the pace of development

113. The pace of development in FM has exceeded the rate at which the legislative changes have been achieved. This is a source of concern and anxiety for many stakeholders who wish to see acceleration of the rate at which new laws are enacted – in particular to: (i) define the role of FM team in the health system and articulate more clearly the scope of services provided by the FM team; (ii) establish a legal base for the new payment mechanisms to create incentives for FM teams; (iii) clarify the role of narrow specialists at PHC level, the boundaries with secondary care, and referral and counter-referral mechanisms; and (iv) resolve the confusion surrounding the rights of citizens and the insured; (v) redefine the status of FM teams in relation to dom zdravljas as regards contracts.

Strategic planning for scaling up

114. FM reforms have been rapidly introduced and now cover 23 percent of the population. Clear strategic plans have been developed identifying human and financial resources needed for scaling up the FM model. The Bank approved on March 30, 2005 a new project – Health Sector Enhancement Project, which inter alia supports the scaling up of family medicine country wide. This project is being cofinanced with the Council of Europe Development Bank. Although around 200 health professionals have been trained in health management, there needs to be rapid scale-up of health management training to prepare a cadre of professionals to manage change, the scale-up process, and the transition from pilot status to a fully-institutionalized FM model. The WB Health Sector Enhancement Project will support the expansion of managerial capacity.

Role models to catalyze change

115. Lack of role models in the BIH context is a problem, but the emergence of some DZ managed solely by FM teams provides an opportunity to demonstrate what can be achieved.

Communicating the reforms

116. Key informants identify limited communication between and within levels of the health system as a critical problem. The population has not been adequately informed about the nature of the reforms, the reasons and the expected benefits. Inadequate communication and poor engagement of the operational level in decision-making lead to the perception that reforms are ‘top-down’ and ‘imposed’. This is a major barrier to successful scale-up and sustainability of an FM-centered PHC system.

Monitoring and Evaluation

117. As with the other countries in this study, for the PHC reforms in BIH, there was no base lining in the demonstration sites to enable before- and after-intervention analysis or studies to compare and contrast demonstration sites with matched non-pilot sites. In the BIH context, although large amounts of data of variable quality are collected regularly, due to limited analytical capacity, these are not analyzed to generate meaningful information to inform decisions. It is encouraging to see that the new Health Sector Enhancement Project will address issues of M&E to develop and operationalize a system to monitor and evaluate health sector performance.

4.3.2. Service provision

118. A large number of narrow specialists work in PHC and manage acute and chronic conditions commonly encountered in PHC. These narrow specialists act as substitutes for FM specialists, fragment

gate keeping and compromise key FM functions of first-contact, comprehensiveness, continuity and coordination. Further, the emergency services and occupational health system act as parallel PHC services, further weakening first contact and gate keeping functions of PHC.

Integration, Continuum of Care and Referral Systems

119. Although an effective FM-centered PHC system is being introduced in BIH, the boundaries between primary and secondary levels and the regulatory environment for referral and counter-referral systems have not yet been established. There are, as yet, no incentives to achieve a secondary-to-primary shift and develop extended primary care. Decentralization in FBIH has fragmented the health system. Horizontal integration remains a problem – adversely impacting on risk pooling, freedom of movement of citizens and development of entity-wide strategic plans for optimizing resource utilization and allocation. Vertical integration is limited, with PHC and the hospital levels operating as two sub-systems with precarious links between them. As the financing of the two systems are unlinked, there is a risk of cost-shifting between levels – especially as a per capita payment system without performance indicators will eventually lead to increased referrals to reduce workload at PHC level. This will undermine the gate keeping, continuity and comprehensiveness functions of the PHC level. Without development of effective interface between primary and secondary levels, it will be difficult to develop an integrated system with a continuum of care. The Health Sector Enhancement Project will support the development of an interface between PHC and higher levels of care.

4.3.3. Financing, resource allocation and provider payment systems

120. Detailed contracts have been successfully introduced in the demonstration sites. This is to be commended, as the platforms have been put in place to use contracting as a tool to improve service quality, efficiency and effectiveness. However, to achieve these objectives there needs to be a move from simple cost-volume contracts based on inputs to more sophisticated contracts based on performance, outputs and outcomes. This shift will require: (i) significant analytical and execution capacity at PHC and CHII/HIF levels to manage and monitor more sophisticated contracts; (ii) robust information systems in these domains to capture relevant and timely data on activities and outcomes; and (iii) appropriate incentive systems to improve performance. Currently in BIH, the quality of services delivered in PHC is not monitored. It is very encouraging to witness the development of the Quality and Accreditation Agencies that have started accrediting PHC facilities.

Incentives and Retention

121. Unsystematic anecdotal evidence suggests that some of the health professionals trained in FM specialist training program and in PAT may be leaving or planning to leave FM to join training for other specialties. It is important that at this stage of the reforms, incentives are introduced to retain the ‘early adopters’ and leaders. Failure to do so will result in rapid demoralization of the FM team and adversely affect sustainability of the reforms. Although the new payment mechanisms in demonstration sites provide some incentives, there needs to be a much stronger indication that FM is valued on par with hospital specialties. The Health Sector Enhancement Project will address these issues.

4.4. CONCLUSION

122. Despite a post-war environment, Bosnia and Herzegovina has been able to introduce a novel FM-centered PHC model and achieved rapid scale-up with appropriate legislative platforms which create an enabling environment for change. The Basic Health Project has been a successful project and demonstrates that the Bank can add much value to the PHC development process, but success brings with it responsibility. A clear exit strategy, agreed with local counterparts, is needed to ensure that there are no gaps in support to sustain the transformation process.

5. CASE STUDY OF ESTONIA

123. This chapter is a summary of a detailed study of FM reforms in Estonia, which was not the subject of this study and as such has been published separately.⁹²

5.1. BACKGROUND

124. Estonia, a Baltic State with a population of 1.38 million, regained its independence from the Soviet Union in 1991 and in 2004 joined the EU. Estonia is the first post-Soviet country to fully scale-up and institutionalize FM-centered PHC reforms. Prior to independence, the Estonian health system was based on the Soviet Semashko model, characterized by a large network of secondary care institutions and a fragmented PHC level with a tripartite system of adult, children and women's polyclinics and specialized dispensaries. Family medicine specialty did not exist. Polyclinics were staffed by therapists, pediatricians, gynecologists and sub-specialists. PHC level exercised limited gate keeping, further compromised by the citizens who bypassed PHC to directly access emergency and specialist services in dispensaries or hospitals. All hospitals and PHC units were publicly owned and health personnel were salaried public employees. Doctors who worked at PHC level had low status and pay as compared to specialists. The system had curative focus with excessive secondary care structures to be financially sustainable.

125. In 1992, Estonia introduced health reforms to separate planning, purchasing and provision functions and to develop a FM-centered PHC system. Strategic planning was retained by the MoSA, contracting and purchasing devolved to the newly established EHIF and provision delegated to PHC units owned by the municipalities and to hospitals which were established as autonomous legal entities with own boards accountable to the State and the local governments. Between 1993 and 2001, the number of hospitals declined from 115 to 67 and hospital beds from 14,400 to 9,200, while the average length of hospital stay declined from 15.4 to 8.7 days.

5.2. KEY ACHIEVEMENTS

5.2.1. *Changes in organization and legal environment for PHC*

126. In 1993, FM was designated as a specialty – the first post-Soviet country to do so. A three-year residency program for new graduates and in-service training for specialists working in PHC were introduced. In 1997, changes in health service regulations required Estonian citizens to register with FPs contracted by EHIF to provide PHC services to their registered population. Ministerial regulations defined responsibilities of FPs and the practice of the specialty, and introduced a new weighted per capita payment system mixed with fee-for-service and allowances, including a special payment for doctors trained and certified as FM specialists.

127. 'The Health Services Organization Act', subsequent regulations⁹³⁻⁹⁷ and the Health Insurance Act of 2002 defined the eligibility criteria for health insurance.⁹⁸ By 2003, 94 percent of the population was covered by public health insurance. PHC reforms were rolled out rapidly in all regions except for the capital Tallinn, where the heads of polyclinics supported by Tallinn Municipal Health and Social Care Department resisted change and advocated retention of polyclinics with salaried doctors. In 2001, there were 557 doctors trained as FM specialists. In 2004 this number had reached over 900 – enough to cover all of Estonia. By 2003, all FM specialists working in Estonia had a patient list of around 1,600 and a contract with the EHIF.

5.2.2. *Changes in financing and provider payment systems*

128. Health system financing changed from tax-funded to a mixed system, funded predominantly from health insurance with contributions from the State and official out-of-pocket payments. In the period 1992 to 2002, total health expenditure as a percentage of GDP increased from 4.5 to 5.5 percent; below the EU Member State average of 9 percent but similar to levels in the 10 new EU Member States and

post-Soviet republics.⁹⁹ In 2002, public sector financing accounted for 76.3 percent and private expenditure for 23.7 percent, of which majority (20% of total expenditure) was out-of-pocket expenditure. The bulk of the public sector financing came from health insurance revenues (65-67%). The State contributed 8-9 percent of the total, in form of main transfers through the MoSA.¹⁰⁰

129. In 2003, 14 percent of total EHIF expenditure on health services was allocated to PHC, 77 percent to hospitals, 8 percent to dental services and 1 percent to health promotion. The expenditure on PHC, as a proportion of the total health expenditure, declined from 8.2 percent in 1998 to 5.5 percent in 2000, thereafter increasing to 8 percent in 2002. Contracts with EHIF replaced salaries of FM specialists with mixed payment system comprising age-adjusted capitation, fee-for-service, basic practice payment, additional allowances and cost-sharing for home visits payable by patients, except for the exempt groups such as children and the pensioners.

5.2.3. *Changes in service delivery patterns*

130. FM specialist training and the EHIF contract broadened significantly the scope of services delivered in PHC setting. Evidence-based guidelines on management of acute and chronic conditions commonly encountered in PHC were introduced in the late 1990s, encouraging FM specialists to manage these conditions previously managed by narrow specialists.

5.2.4. *User perceptions*

131. Most of the respondents interviewed during the evaluation of PHC reforms in Estonia emphasized the key achievements to be: (i) coverage of the whole population; (ii) focus on the user; (iii) more personalized service; (iv) enhanced “continuity of care and overview”; (v) ability to treat all age groups; (vi) horizontal view of the patient and illness; (vii) increased professionalism at PHC level – enhanced role of family physicians and nurses; (viii) increased independence for the health professionals (family physicians and nurses); and (ix) clearer responsibilities to the users, as now a single professional was responsible for the patient in contrast to “the polyclinic model of the past where the responsible person was not clear.” An important and novel feature of the new PHC system cited was the ability of the users to choose their family physicians. The contract and the law on cost sharing encouraged transparency and help clarify responsibilities.

5.3. REMAINING CHALLENGES TO BE ADDRESSED

132. A number of challenges remain and need to be addressed to build on the successful PHC reforms. These include, but are not limited to: (i) human resource shortage, which is exacerbated by emigration of health professionals to neighboring countries. This shortage is likely to worsen now that Estonia has become a member of the EU. In particular, there is a shortage of family nurses who feel their skills are undervalued; (ii) low income levels for PHC professionals are creating barriers to entry into practice and increasing risk – in the last few years, at constant prices, there have been no increases at income levels of family physicians; (iii) Out-of-pocket expenditures are increasing and this may adversely affect the doctor-patient relationship if further cost sharing is introduced at PHC level; (iv) health expenditure levels that are well below the EU average and need to be increased to meet expanding demand – lengthening waiting lists is a cause for concern and a source of dissatisfaction; (v) health expenditures for primary care as compared with hospital care are low by European standards. In particular PHC infrastructure is in need of capital investment to bring PHC centers to a standard that will encourage provision of expanded services, enable development of extended PHC and achieve secondary-to-primary shift; (vi) fragmented first contact element of primary care remains a structural weakness that needs to be addressed – with multiple providers who provide ambulatory care (outpatient) services and who can be accessed by citizens without referral; (vii) high land and rent prices in cities, especially Tallinn – which makes it difficult for the family physicians to secure appropriate premises and increases financial risk to family physicians. This risk is actively discouraging young residents and graduates of FM training programs from entering practice; (viii) limited incentives for high performers and a lack of monitoring and evaluation systems that

can be used to reward high quality care and innovative practice; (ix) limited flexibility at practice level to reconfigure human resource requirements to enable more efficient use of available skills; (x) existing legislative framework prevents development of partnerships, appointment of part-time family physicians with personal lists and expansion of a practice size beyond 2,000 patients. This limits flexible working practices and is a barrier to faculty who have appointments at university but also women practitioners who wish to practice part time because of family commitments; (xi) although Estonia has achieved impressively high health insurance coverage of 94 percent of the population, 6 percent of the citizens do not have access to health insurance and face catastrophic financial risk. This needs to be addressed in the short term.

5.4. CONCLUSION

133. While most post-Soviet countries struggle with their PHC reforms, Estonia has successfully introduced and institutionalized multifaceted PHC reforms, scaled-up to cover urban and rural areas. Structurally, the public-integrated Semashko model has been transformed to a 'Bismarckian' public-contract model with separation of purchasing and provision functions. Hospital sector has been rationalized; new Laws have established for FM specialty and defined scope and content of FM services; organizationally, the tripartite polyclinic structure has been rationalized into unified FM centers which manage all citizens irrespective of age and gender.

134. Novel organizational structures, such as independent practitioners and partnerships, have been established. Financing reforms have transformed a tax-funded health system to a mixed model, funded predominantly by health insurance supplemented by official private out-of-pocket payments and State contributions; budget-based resource allocation system has been replaced by purchaser-provider contracts and new PHC provider payment system incorporating weighted-per-capita pay, fee-for-service and allowances. As patients have a choice of their FPs, money follows the patient; service provision has changed with broadened scope of PHC services driven by evidence-based guidelines.

135. The new PHC model is accepted by the majority of the population. Surveys undertaken by EHIF show that 79 percent of the people surveyed in 2001 and 88 percent in 2003 were either very satisfied or generally satisfied with PHC services. 90 percent of the population knew their personal FP and only 15 percent had changed their FP, mainly because of change of residence.¹⁰¹ There is increased effectiveness of PHC with enhanced continuity and comprehensiveness of services, evidenced by improved management of chronic illness in PHC setting with increased number of consultations, reduced hospital admissions and changing prescribing patterns, which point to increased uptake of best-developed practice.

6. CASE STUDY OF KYRGYZ REPUBLIC

136. This chapter summarizes the findings of a detailed study of FM reforms in the Kyrgyz Republic, which is published as a separate volume.¹⁰²

6.1. BACKGROUND

137. Following independence in 1991, Kyrgyz Republic inherited a health system based on the Soviet Semashko Model characterized by: (i) centralized and hierarchical administrative organization; (ii) a large provider network dominated by hospitals with a curative focus; and (iii) parallel health systems for line ministries and large organizations. Primary health care level was poorly developed with a fragmented delivery model comprising in cities a tripartite polyclinic system which provided services separately for adults, men and children, as well as a large number of vertical programs delivered by narrow specialists in dispensaries. There were no family physicians and the polyclinics were staffed by narrow specialists and general physicians for adults, pediatricians and obstetrician/gynecologists. In rural areas, ambulatory care centers were staffed by adult physicians or by feldshers in feldsher stations.

138. In line with excess infrastructure, there were excess human resources which were concentrated in cities. Inequitable resource allocation, based on historic activities and inputs, favored large hospitals in urban centers at the expense of rural areas. Provider payment systems, based on line-item budgeting of provider units and salaries for staff, encouraged inefficiency and hindered improved performance. Provision of effective health care services were hampered by care delivery protocols which failed to draw on best-developed practice and evidence and which encouraged excessive referrals to secondary care level. There was limited user empowerment and the citizens were allocated to doctors and unable to exercise choice of providers.

139. Prior to independence, the Kyrgyz Republic devoted 3.5 percent of its GDP to health. This diminished following rapid economic decline – creating a substantial funding gap between the level of financing needed by the health system and the resources available. Following independence, the Kyrgyz Government sought to introduce multifaceted health reforms with an emphasis on developing a strong FM-centered PHC system to address: (i) organizational complexity; (ii) excess infrastructure and human resources; (iii) allocative inefficiency and inequities in financing; (iv) provider payment systems which hindered service improvements; (v) inefficient service provision; (vi) limited incentives to improve quality; and (vii) low pay levels for health personnel.

6.2. KEY ACHIEVEMENTS

140. From 1992, in collaboration with international agencies, the Kyrgyz Government introduced key legislations to create an enabling environment for health reforms and establish platforms for comprehensive and multifaceted change in the health system to reduce inefficiencies; enhance equity and access (financial and geographic); and improve quality. High-level support for FM reforms has been strong. The MOH has a clearly articulated health reform strategy and has succeeded in coordinating donor agencies to ensure alignment of inputs, reduce duplication and optimize value add by multilateral and bilateral organizations actively involved in the health sector. Exemplary collaboration between the donor community and the Kyrgyz Government led to emergence of an ‘operational and informal SWAP’.

6.2.1. Organizational and regulatory changes

Structural changes

141. Despite a highly resource-constrained environment, the achievements of FM-centered PHC reforms in the Kyrgyz Republic have been remarkable with expanded scope of services, enhanced gate keeping and first contact functions of PHC, and substantial shift between secondary and primary health care. In urban areas, the tripartite system of pediatric, women’s and adult polyclinics in cities has been consolidated into unified Family Medicine Centers (FMCs). In rural areas, family group practices (FGPs)

have been established with autonomy to contract with the Mandatory Health Insurance Fund (MHIF) and to manage their own budgets. FGPs can also establish independent units within FMCs and contract with the MHIF to deliver PHC services. In addition, feldsher-ambulatory care centers serve remote rural villages (FAPs). Many of the PHC centers have been refurbished and now provide services for adult men and women and children.

142. Family medicine was recognized as a specialty in Law and new PHC provider organizations, FMCs and FGPs, have been established with autonomy to manage budgets and contract with the Mandatory Health Insurance Fund.

Institutionalization of family medicine

143. The scope and content of FGP services have been articulated in law and defined in detail in the State Guaranteed Benefits Package. The gate keeping function of PHC has been established with FGPs acting as the first point of contact for patients. The Association of Family Doctor Groups, established in 1997, has a limited role in licensing and accreditation activities, and plays an important advocacy role to inform key stakeholders at different levels on the benefits of reforms. The Association of Family Doctor Groups is active in lobbying parliamentarians and in 2003 became a member of the World Family Doctors Association (WONCA). Accreditation has been introduced and a number of PHC and hospital facilities have been accredited.

6.2.2. Financing, resource allocation and provider payment systems

144. Despite a declining public expenditure on the health sector, the proportion of financing allocated to PHC has increased from 7 percent of the total public health expenditure in 1994 to around 25 percent in 2003. A mixed system of financing has been established with mandatory health insurance, official co-payments and budget transfers. A Single Payer System has enabled pooling of all sub-national budget funds for health care in the Territorial Department of the MHIF in a 'single-pipe funding' to fund the State Guaranteed Benefits Package. Co-payments provide limited additional resources to the health system but create a transparent environment as regards payments to health service providers and have benefited the poor by increasing transparency and reducing unofficial under-the-table payments for providers.

145. New provider payment methods have been successfully introduced in the regions for FGPs based on simple per capita mechanism. Direct and indirect contracts have been introduced for FGPs, including partial fund holding, where FGPs control budgets for essential drugs.

6.2.3. Service provision

146. A State Guaranteed Basic Package has been introduced covering the entire population and provides free PHC services for all citizens, regardless of their insurance status and enrolment. Citizens not covered under the MHI scheme are subject to formal co-payments for referral services in outpatients or hospital inpatient services provided by narrow specialists. Citizens insured under the MHIF receive additional benefits of access to an outpatient drug package which provides certain drugs at reduced rates and lower co-payments for referral services in outpatients and as inpatients in hospital. The gate keeping strength of PHC level has been enhanced by a mechanism which stipulates that patients who access hospitals without a referral from family physicians incur higher levels of cost sharing. Users are more empowered and can choose their family physician and in some regions participate in community-led needs assessment to plan service delivery.

147. The access and accessibility to PHC centers has significantly improved, except in rural and mountainous areas where access can be very difficult. There is excellent coverage of immunization and widespread provision of basic PHC services throughout the country. In the regions which have introduced the FGP model, the scope and content of services have significantly expanded, with increased health promotion services.

148. Analysis of the MHIF data demonstrates a substantial and appropriate shift from secondary to primary level with a decline in the number of hospital referrals for key acute and chronic conditions typically managed in PHC setting. This finding is critical to demonstrate that changes are having the desired benefits of enhanced care management in PHC setting with reduced referrals to hospital – with consequent improvement in efficiency and effectiveness. Evidence-based guidelines have been introduced for 162 common conditions encountered in PHC. This will further enhance quality of PHC services delivered, reduce unnecessary interventions and diminish referrals to hospitals. There is evidence from the qualitative research that the new model is welcomed by the users and health professionals who identify many benefits which, amongst others, include user-centeredness of the model, having a named doctor, user choice, more comprehensive nature of FM model, empowerment of FM team and increased emphasis on teamwork.

6.2.4. Resource generation

149. Excess human resource capacity in the health sector has been rationalized, but although the total number of doctor and nurses have declined to levels in line with those in the European Region, the number and proportion of family doctors and nurses have steadily increased. National efforts, supported by international technical assistance, aimed to institutionalize FM training at five levels: (i) undergraduate training for medical students; (ii) post-graduate training – a two-year FM residency for doctors graduating from medical school; (iii) Retraining program for physicians practicing as general practitioners; (iv) continuing medical education (CME) for FM teachers, and for practicing family doctors and nurses (v) and a bachelors degree program for PHC nurses. These programs have been established. There are now two chairs of FM: (i) at the Kyrgyz State Medical Academy, and (ii) at the Kyrgyz State Medical Institute for Retraining and CME.

150. By 2003, up to 63 FM trainers have been trained in the one-year training of FM trainers (TOT) program introduced in 1997 at the Centre for Continuous Medical Education in Bishkek. In addition, 64 family nurse trainers have been trained in the one-year TOT program for nurses. This able body of FM and nurse trainers has led highly successful short-course retraining programs, with support from international experts. A critical mass of around 2,500 FM specialists has been trained in the four-month retraining program in addition to around 3,000 nurses trained in the two-month retraining program. These family physicians and nurses now meet approximately 70 percent of the numbers needed in the Kyrgyz Republic.

151. Two FM residency programs have been established: one in Bishkek, which has graduated over 40 doctors, and the other in Osh, which currently has 24 doctors in the program. A national CME for family physicians and for FM nurses has been established. Around 1000 family doctors and 1400 family nurses currently involved with the CME system receive ongoing training on an annual basis from the FM trainers associated with the Centre of Continuous Medical Education. This new CME system, which began in Issyk-Kul Oblast in 2001, was expanded in 2004-2005 to include 3 pilot rayons in Osh and Chui Oblasts, and all the FGP doctors in the other oblasts. In 2005, a similar CME program will begin for the FGP doctors in Bishkek and Osh cities.

152. The task profile survey shows that the family physicians trained in the FM retraining programs and who are now working in areas where the FM centered reforms have been implemented have expanded the scope of their services. Family physicians provide expanded services for health education, promotion and disease prevention. In addition, as compared with PHC doctors who have not been retrained, family physicians more frequently apply medical techniques and procedures commonly used in PHC setting, and have greater involvement in management of key first-contact and chronic conditions. The differences observed between the family physicians and doctors who have not been retrained are statistically significant and demonstrate the positive benefits of the retraining on expanding the scope and content and enhancing the quality of service.

6.3. REMAINING CHALLENGES TO BE ADDRESSED

6.3.1. *Negotiating the glass ceiling*

153. Family medicine and PHC reforms in the Kyrgyz Republic have been successful and evolved rapidly, but have reached a glass ceiling which needs to be negotiated. Further legislative changes are needed to support the next major phase of development. Many of the key stakeholders wish to see acceleration in the pace of reforms, particularly to: (i) broaden the role of FGPs and the scope of services they deliver; (ii) build on the payment mechanisms, contracts and the autonomy afforded to the PHC providers to introduce more flexible contracts with incentives to improve performance, quality, and provide additional services – health promotion, prevention and extended PHC; (iii) increase remuneration for FGPs and FM nurses trained as specialists; (iv) further refine resource allocation taking into account need and equity of access, favoring rural and poorer areas with higher health needs; (v) place more emphasis on evidence-based medicine; and (vi) change reporting mechanisms which reinforce the old tripartite model and hinder unified service provision.

6.3.2. *Organization and regulation*

Excess capacity

154. Although introduction of FM-centered PHC has enhanced gate keeping function of the health system and led to shifts from secondary to primary health care, there is still excess capacity in the hospital sector. Attempts at rationalizing the hospital sector have achieved partial success, especially after the introduction of the health insurance and hospital payment systems based on DRGs, with rationalization of rayon-based hospitals, but with limited impact on the Republican hospitals which consume a disproportionate amount of the health resources.

Flexible contracting to enhance quality

155. FM and PHC reforms in the Kyrgyz Republic have been highly successful and evolved rapidly. Minimum quality standards and equitable level of services have been established for Kyrgyz citizens. However these contracts do not differentiate between those who provide high-quality services and those who do not. The contracts, while encouraging equity, do not provide enough flexibility to encourage innovation. Contracts with the FGPs can be used to encourage innovation and to extend the scope of services provided in PHC.

Communication

156. Communication between and within levels of the health system and with the public is critical activity that needs to be enhanced to rectify misperceptions of FM which create barriers to full scale-up and sustainability of an FM-centered PHC system. A clear and all-embracing communication strategy is necessary to increase visibility of PHC reforms, inform key stakeholders of the expected benefits and increase ownership.

Analytic capacity

157. Although the Kyrgyz Republic has developed an impressive M&E system within the MHIF, the PHC component of the system needs enhancing and analytic capacity at MHIF further expanded to regularly analyze data to generate timely information to inform decisions.

6.3.3. *Service provision*

Narrow specialists at PHC level

158. Although the tripartite provider system at PHC level is consolidated to give way to new FMCs that provide unified services for all citizens, many family physicians have not changed their practices and continue to practice their narrow specialty (pediatrics, obstetrics & gynecology, and adult medicine). The reporting systems at PHC level, which require returns by sub-specialty, reinforce this practice. Further,

guidelines, which require screening of newborn and older children, pregnant women, workers, and conscripts by narrow specialists, are used as an argument to maintain narrow specialists in PHC.

159. Narrow specialists at FMCs, who can be accessed directly by patients: (i) fragment the first-contact function of primary care level; (ii) create a potential source of inefficiency; (iii) fracture of the gate keeping function of PHC, encouraging excessive referrals to narrow specialists in PHC setting and cross-referrals between narrow specialists; (iv) adversely impact on continuity of care as the care is fragmented; (v) Hinder family physicians from practicing an integrated and holistic family medicine; (vi) prevent the development of extended primary care; (vii) duplicate the role of hospital outpatient departments and FMCs; and (viii) create an artificial and potentially destructive perception of separate rural and urban models of primary care – the former managed by FGPs and the latter by narrow specialists.

Integration, continuum of care and referral systems

160. Incentives to further expand the secondary-to-primary shift, are limited, hindering the ability of PHC level to develop extended primary care and move beyond a gate keeping role. Vertical integration is limited. In effect PHC and the hospital levels operate as two sub-systems with precarious links between them. As the financing of the two systems are unlinked, there is a future risk of cost-shifting between levels.

6.3.4. Resource allocation and provider payment systems

Inequities and allocative inefficiency

161. Despite the State Guaranteed Basic Package, which has achieved universal coverage for PHC services, major inequities in access to services and funding exist, with the rural poor particularly disadvantaged. As with financing and access, inequities exist between urban and rural areas in the distribution of trained FM specialist and FM nurses. While in urban areas the number of registered citizens per FGP physician is 1500, in rural areas there is a net shortage of physicians. Consequently, in some remote areas the number of citizens per FGP physician can reach between 10-12,000 persons.¹⁰³

6.3.5. Limited incentives

162. Limited incentives and poor salary levels of health professionals working at FGPs are key problems that need addressing in the immediate term. Although the new payment mechanisms provide incentives and establish an excellent platform on which to build, there needs to be stronger indication that FM is valued on par with hospital specialties.

6.3.6. Resource generation

Recruitment and retention

163. Against a backdrop of successful retraining program for family physicians and nurses, the shortage of health personnel in rural areas has worsened over the last five years, as medical graduates are unwilling to work in rural areas, and there is no obligation to spend a period in rural areas – as was the case in the Soviet period with a mandatory three-year posting to rural areas. There are very few incentives to attract and retain health professionals in rural and mountainous areas.

Undergraduate training

164. There are seven medical schools that admit over 1,000 medical students each year; around four times the number needed for Kyrgyz Republic. Undergraduate training is not aligned with international trends, is highly curative in focus and is designed to produce narrow specialists.

6.4. CONCLUSION

165. The study identified, among others, a number of critical success factors for the reforms. These include: (a) branding FM and image building, to improve the status of FM specialists as compared with

narrow specialists; (b) improved work environment and conditions for FM teams; (c) investing in communication between and within levels of the health system and with the public to share objectives and values of FM, develop trust and increase ownership; (d) improved coordination of key agencies; (e) developing a holistic approach to reform with simultaneous multifaceted interventions to achieve an enabling legal environment, organizational restructuring to enable emergence new provider forms with increased autonomy, new financing methods, resource allocation mechanisms that address inequities, provider payment methods that overcome limitations of systems based on line-item-budgeting and salaries, contracts and evidence-based care guidelines to enhance quality and establish minimum standards; (f) approaching reforms as a strategic change process; (g) ensuring sensitivity and responsiveness to rapidly changing context; (h) ensuring robust M&E systems are put in place to assess impact of reforms; and (i) having a clearly articulated and planned exit strategy between projects to ensure sustained transformation.

166. The achievements in development of FM-centered reforms in the Kyrgyz Republic are outstanding and one of the most advanced in ECA Region. Strong political support for the next phase of reforms is critical to sustain and further develop the highly successful reforms.

7. CASE STUDY OF MOLDOVA

167. This chapter summarizes the findings of a detailed study of FM reforms in Moldova which is published as a separate volume.¹⁰⁴

7.1. BACKGROUND

168. Moldova inherited a health system based on the Soviet Semashko Model characterized by centralized and hierarchical organization; a large provider network with a curative focus, dominated by a surfeit of hospitals and human resources concentrated in the capital Chisinau. The health system was fragmented by parallel sub-systems for line ministries. The PHC level was poorly developed and did not provide unified service by family physicians. It was based on a tripartite polyclinic system staffed by narrow specialists, which provided services separately for adults, men and children, as well as a large number of vertical programs delivered separately as vertical programs.

169. Although there was an excess of human resources, these were concentrated in cities. Regional and socioeconomic inequities existed for resource allocation, service utilization, morbidity and mortality. Resource allocation system based on historic activities and inputs favored large hospitals in urban centers at the expense of rural areas. Provider payment systems based on line-item budgeting of provider units and salary-based payment systems for staff encouraged inefficiency and discouraged improved performance.

170. There was limited user empowerment, as the citizens were allocated to a particular polyclinic or a rural PHC center, but they had direct access to narrow specialists at PHC level, which did not have a meaningful gate keeping function. Gate keeping and first-contact functions of PHC level were further fractured by care delivery protocols which encouraged excessive referral to secondary care level. The health system, as a whole, was highly curative and disease focused (in part attributable to the biomedical nature of medical training) with limited health promotion or disease prevention.

171. Breaking up from the Soviet Union led to rapid economic decline. Between 1993 and 1999, the GDP declined by 60 percent. By 2000, the GDP per capita was US \$354 with almost 90 percent of the population living on less than US\$1.00 per day. In the transition period, level of funding to the health sector declined substantially – creating a major funding gap between the level of financing needed by the health system and the available resources. Low funding levels from the public sector and low salaries of health professionals led to many health professionals leaving the health sector – particularly in rural areas – substantial inequities, emergence of rent seeking behavior, and informal payments which acted as a barrier to many citizens to accessing health services. Early in the transition period population health indicators worsened, with explosion of TB, STI, intravenous drug use and HIV. Since the year 2000, the health indicators have recovered to levels witnessed in 1990, but communicable diseases remain a problem.

172. The Government of Moldova sought to reform the health system to address key problems, namely: (i) organizational complexity; (ii) excess infrastructure and human resources; (iii) allocative inefficiency and inequities in financing; (iv) inefficient service provision; limited incentives and (v) low pay levels for health personnel. The Law on Health Protection was adopted in 1995 and in 1997 the Moldovan Government approved a Health Sector Strategy for the period 1997-2003.¹⁰⁵ The Strategy aimed to address structural inefficiencies, reduce human resources and improve financing of the health sector through: (a) organizational and structural changes; (b) modifications to financing system; (c) reform of the education and training system for medical staff; and (d) pharmaceutical reform.¹⁰⁶ These themes were developed into the “five pillars” of the health reform strategy and articulated in the appraisal report of the Bank-financed Health Investment Fund Project (HIF)¹⁰⁷ as: (i) restructuring the network of medical services and redistributing resources from tertiary level to PHC; (ii) strengthening PHC by establishing an efficient network of family physicians; (iii) legalizing illegal payments, eliminating payments for unnecessary or excessive medical services, especially those which burden the poor

population; (iv) creating a package of medical services in line with budgetary resources, with an emphasis on PHC; and (v) centralizing health system financing to improve distribution of funds between levels.

173. Between 1998 and 2002, there were 54 Regulations of the Council of Ministers regarding PHC to operationalize the Health Sector Strategy for 1997-2003.¹⁰⁸ These legislations formed the foundation for the reforms of the PHC reforms.

7.2. KEY ACHIEVEMENTS

7.2.1. Organizational and regulatory changes

174. The Law on Local Public Administration in 1999¹⁰⁹ established 11 regional administrative units comprising 10 counties (judets), one metropolitan area (the city of Chisinau) and the territorial autonomous unit (TAU) of Gagauzia. In the judet administrative structure, local health budgets were allocated directly to PHC units, sectoral/judet hospitals and emergency services and managed autonomously by each of the units. However, The Public Administration Law 123/2003 enacted in 2003¹¹⁰⁻¹¹¹ abolished the judet structure and stipulated that health services should be reorganized into one legal entity comprising rayon hospital, PHC, emergency and ambulatory specialist services, with separate budgets for each of the different services, but managed by the rayon Chief Doctor.

175. The tripartite system of pediatric, women's and adult clinics has been consolidated into unified PHC centers providing services for all citizens. FM is recognized as a specialty in law and the scope and content of PHC services have been articulated in law and defined in detail in the State Guaranteed Benefits Package. Users have been given the freedom to choose their family physicians. There has been a remarkable rationalization of the hospital sector, the most substantial amongst the FSU countries, and 280 PHC have been refurbished with support from the Bank-financed HIF.¹¹²

7.2.2. Financing, resource allocation and provider payment systems

176. There is mixed financing of the health system. In 2003, Mandatory Health Insurance with co-payments was introduced, creating a transparent environment as regards payments to health service providers. A Single Payer System has been established which allows integration of state and local budget revenues with MHIF contributions to fund the Guaranteed Minimum Package of Services for the whole population as well as the Basic Benefits Package under the Mandatory Health Insurance Fund (BBP-MHIF) for the insured and those in exempt categories.¹¹³

177. The Health Insurance Company (HIC) has become the purchaser of health services. The health funds are transferred from the HIC and local government to the rayon hospital administration. The rayon chief physician then allocates the funds to the sub-units s/he directly manages but is required to comply with MOH budgeting norms, which stipulate allocation of 35 percent of resources to PHC, 15 percent to emergency services, and 50 percent for hospital services. The HIC agrees an annual contract with the rayon administration with pre-specified price and volume of services to be provided. PHC providers are paid according to a per capita contract and hospitals are paid per discharged patient and per case for emergencies.

178. Since the introduction of the MHI, in the first three months of 2004 the number of PHC visits was about 2,900,000, an increase of over 20 percent, as compared with the same period of 2003.¹¹⁴ An important achievement of health reforms is increased resource allocation to PHC level. The proportion of health expenditure allocated to PHC has gradually increased from 10 percent of the total government health expenditure in 1999 to 26 percent in 2003, while hospital expenditure declined in proportion to this increase.

7.2.3. Service provision

179. PHC network consists of four types of PHC providers: (i) Centers for Family Medicine, based on the former district polyclinics and often serving large populations of over 50,000; (ii) Health Centers, based on former SVAs (selkskiye vrachnii punkt); (iii) Family doctor offices based on former rural

ambulatories covering populations greater than 1001 in number; and (iv) Health posts for family doctors assistants for villages/areas with populations numbering less than 1000. A Guaranteed Minimum Package of Services has been introduced for the whole population and includes: (i) PHC services provided by general practitioner/family doctor in ambulatory care unit or at home; (ii) consultative services provided by physician-specialists in polyclinics and hospitals (when patient is included on the list of GP/FD and is referred by the GP/FD); (iii) limited range of diagnostic tests and elementary investigations conducted in ambulatory laboratories (when prescribed by the GP/FD); (iv) immunization; (v) urgent and emergency services for life-threatening situations; and (vi) hospital care for treatment of TB, mental disorders, oncology, asthma, diabetes, AIDS and “social-related diseases”.

180. Citizens with health insurance have right to an expanded program of services (BBP-MHIF) as compared with the Minimum Package of Services. The gate keeping function of the family physicians has been significantly enhanced by the introduction of the BBP-MHIF which stipulates that citizens must first see a family physician before being referred to hospital. The hospital costs of the patients referred are covered by the HIF (except for any co-payment). Those who self-refer to hospital without first consulting a family physician have to bear the full cost of hospital care.

181. Although all Moldovan citizens are entitled to a Guaranteed Minimum Package of Services and have relatively good geographic access to PHC services except for rural areas, significant financial barriers to health care exist. The utilization of PHC services, as measured by the number of visits to family physicians, increased by 17 percent between 2000 and 2002. A limited number of care guidelines have been developed with support from UNICEF, and the HIF Project is providing support to the MOH to develop additional guidelines in line with the services provided in the Basic Benefits Package under the Mandatory Health Insurance Fund.

182. There is excellent coverage of immunization and widespread provision of basic PHC services in all regions. Many of the basic PHC services for managing common conditions are provided in most PHC centers which also manage common chronic illnesses and apply simple diagnostic and therapeutic interventions. The task profile survey shows statistically significant differences in the application of medical techniques, use of medical equipment, and management of common first contact and chronic conditions by family physicians working in PHC centers situated in advanced reform regions as compared with those working in PHC centers from intermediate and early reform regions.

183. The task profile survey demonstrates that family physicians in advanced reform region provide more systematic health education and promotion activities and more frequently manage common psychosocial problems as compared with those family physicians intermediate or early reform regions. There is evidence from the qualitative research that the new model is welcomed by the users and health professionals who identify many benefits, which amongst others include user-centeredness of the model, having a named doctor, user choice, improved continuity and more comprehensive nature of FM model, empowerment of FM team, and an increased emphasis on holistic care.

7.2.4. Resource generation

184. The number of doctors and nurses has been declining due to low salaries and emigration, but this decline has hit the rural regions particularly hard. Family doctor training program began in Moldova in 1996. The Faculty of Family Medicine was established at the State Medical University in 1998. A Chair in Management Training and Public Health was created in 2000. Two model family practices were established in Chisinau and have been used as training practices. The FM Chair has 15 faculty including four associate professors and eight assistant professors. It has strong support from the State University.

185. The Faculty has been providing four different training programs to train family physicians: (i) a three-year specialist residency program in FM; (ii) a four-month retraining course, which started in 1998; (iii) a four-week retraining course, supported by the WB, which started in 2003; and (iv) short-term thematic courses, supported by UNICEF since 1998.

186. Between 1996 and 2001 the Faculty provided 'some training' in FM to over 2,000 doctors in residency and short course programs and was selected by the WB in 2003 as the implementing agency for retraining of PHC doctors in FM. In 2002, with financing from the HIF and UNICEF, a four-week training program for training of FM and nurse trainers (TOT) was established. A total of 34 FM trainers and 20 family nurse trainers were trained in the TOT program who have worked with international consultants to develop a six-week retraining course to train 750 family physicians and 1500 family nurses. The State University of Medicine and Pharmacy was contracted in 2003 to implement the training program. By the end of March 2005, the University had finalized training of 550 GPs and 1,010 nurses (52%). With support from the HIF, five regional FM Training Centers were established.

7.3. REMAINING CHALLENGES TO BE ADDRESSED

187. There has been good progress with the FM and PHC reforms in Moldova, but this progress needs to be sustained and accelerated to address many challenges which remain.

7.3.1. Organization and regulation

Balancing power between primary and secondary level

188. The power among the health service providers rests with the hospital sector. Recent administrative changes have reduced the autonomy of PHC departments at rayon level and re-centralized power in the hands of the chief rayon doctor, who is also the director of the rayon hospital. This is a retrograde step and will hinder the development of PHC, which is now subordinated to the secondary care level.

Monitoring and evaluation

189. There is a lack of systematically collected data at PHC level which can be analyzed to demonstrate whether key reform objectives have been achieved. The PHC component of the M&E system at the Institute of Public Health and Management needs to be enhanced and analytic capacity expanded to regularly analyze data to generate timely information to inform decisions.

Communication

190. The benefits of an FM-centered PHC system are not adequately communicated to citizens and health professionals. Although the HIF Project has significantly invested in communication and advocacy activities, more investment is needed to improve communication between and within levels of the health system and with the public to rectify misperceptions of family medicine.

7.3.2. Financing, resource allocation and provider payment systems

Incentives

191. Lack of incentives and poor salary levels of FM specialists are two major problems that need addressing in immediate term. A key problem with the image of FM is that the family physicians have to work longer hours than specialists, undertake excessive administrative tasks without commensurate pay or professional recognition (by peers and citizens). This dampens the enthusiasm of doctors to enter residency programs and narrow specialists to retrain in FM. The Government has identified this as an issue and recently introduced changes to pay scales to increase remuneration of family physicians, and in particular those working in the rural areas. However, this is a policy priority and should be closely monitored.

192. There are no incentives to achieve a substantial shift from secondary-to-primary health care, limiting the ability of PHC level to develop extended primary care and move beyond a gate keeping role.

Equity and allocative efficiency

193. There are clear differences in the level of resources provided to urban and rural regions. In particular Chisinau City attracts much higher funding levels than other regions. Allocative inefficiencies

between levels of care and type of institution also persist. In particular, Republican Hospitals in Chisinau still consume a significant proportion of the health system budget. Consequently, major inequities in access to services and funding exist. The next phase of reforms should place an emphasis on changing resource allocation mechanisms to take into account poverty and health needs and substantially modify the current patterns which currently favor urban areas and Republican hospitals.

7.3.3. Service provision

194. The retraining programs have been successful in rapidly scaling up FM in Moldova, but are too short to convert narrow specialists to generalist family physicians. Existing training programs need to be extended and further strengthened to produce family physicians of higher competence and to counteract criticisms leveled by narrow specialists and opponents of reforms at FM institution. Countrywide standards on scope and quality of services have succeeded in establishing minimum quality standards and basic level PHC services as compared with OECD countries, the scope and content of services provided in PHC setting in Moldova are still basic and there is much room for expanding the scope of services provided in PHC. The current contract introduced by the HIC and the BBP-MHIF will help enhance equity by providing a uniform package of services to the whole country. Much work needs to be done in the next few years to further institutionalize this system. To further develop PHC, over time, there needs to be a move to more flexible contracting based on performance.

195. The presence of narrow specialists at PHC centers is a source of inefficiency and a barrier to developing PHC as it adversely impacts on first contact, continuity and comprehensiveness functions of PHC. All narrow specialists at PHC level should be trained as family physicians and roles modified so that they practice FM.

7.3.4. Resource generation

196. There are several concerns regarding training and FM: (i) the short nature of the training; (ii) no career structure for graduates of FM programs; and (iii) inadequate incentives for FM physicians. Existing training programs need to be extended and further strengthened to produce family physicians of higher competence and to counteract criticisms leveled by narrow specialists and opponents of reform. It has been estimated that around 20–30 percent of FM graduates go back to work in posts in hospitals. To address the problem of low salaries and incentives, the MoH has developed new guidelines stipulating mechanism for wage calculations, which allows from 2005 to increase wages, especially for GP in rural areas, where there is an acute shortage of staff.

7.4. CONCLUSION

197. Although impressive, the achievements are fragile given the systematic reduction of public funding for health system, low pay levels, limited visibility of FM among the health professionals and the recent changes in the Public Administration Law, which has abolished judet structure and autonomous PHC units and has handed over the management of PHC to rayon hospital directors. Key stakeholders interviewed wish to see acceleration in the pace of reforms, to: (i) broaden role of family physicians and strengthen the competence of the PHC team; (ii) refine payment mechanisms to introduce incentives and performance related pay to encourage innovation, enhance quality and provide of additional services – for instance, greater health promotion and prevention activities, and to attract doctors to rural areas; (iii) modify resource allocation by introducing systems that are pro-poor and enhance allocative efficiency, such as differential per capita pay to PHC centers based on need and difficulty of access – to favor rural and poorer areas which have higher health needs; (iv) develop capacity to manage strategic change; (v) better define referral and counter-referral mechanisms to establish a continuum of care; (vi) improve communication to reduce misunderstanding and resistance; and (vii) increase autonomy of PHC units vis-a-vis the rayon hospitals; and (viii) Develop a strong M&E capacity.

8. DISCUSSION

198. Empirical evidence from the study shows that the countries are attempting to introduce systemic, comprehensive and multifaceted PHC reforms, but obvious heterogeneity exists in reform approach, speed, degree of progress and institutionalization. Although there are differences, there are also many shared features among the approaches.

8.1. ORGANIZATION AND REGULATION

199. The countries studied have introduced new laws to define broad health strategy and directions of reforms. In some countries, new PHC organizations have been created with varying levels of autonomy to manage budgets and to contract with funding agencies. FM-centered PHC reforms have tended to be family physician-centric with the exception of BiH, which has introduced FM teams, and the Kyrgyz Republic, which has established family group practices. FM is recognized as a specialty in all the countries evaluated, but the degree of scale-up varies with full scale-up achieved only in Estonia (Table 1).

Table 2: Organizational Characteristics

	Armenia	Bosnia and Herzegovina	Estonia	Kyrgyz Republic	Moldova
New organizational form	Family physicians	FM Team	Family physicians	Family group practice	Family physician
Contracts with funding agency	Direct	Direct and indirect	Direct	Direct	Indirect
Degree of autonomy	Limited	Limited	High	High	Limited
Ownership status	Joint stock company in cities	Public	Private	Public	Public
User choice with enrolment	Yes	Yes	Yes	Yes	Yes
Scale up	15%	23%	100%	70%	40%

8.2. FINANCING

200. All the countries studied had moved from a publicly funded system to a mixed system, combining a mixture of health insurance (HI), budget transfers (state or local), and out-of-pocket payment. There was varying level of co-payment and coverage.

Table 3: Financing

	Armenia	Bosnia and Herzegovina	Estonia	Kyrgyz Republic	Moldova
Financing	Mixed State Health Agency, state, local, OOP	Mixed HI, state, entity	Mixed HI, OOP	Mixed HI, state	Mixed HI, local
Co-payment	Yes for services outside Basic Benefit Package	Not for PHC	Yes for home visits and outside benefit package	Not for BBP in PHC	Not for Basic Package in PHC

8.3. RESOURCE ALLOCATION AND PROVIDER PAYMENT SYSTEMS

201. As compared with the levels in the 1990s, the proportion of health system funds from the public budget allocated to PHC has increased in all the countries evaluated. The lowest proportion was in Estonia and the highest in the Federation of the Bosnia and Herzegovina (Table 3). All the countries had replaced salary-based payment systems with per capita or mixed provider payment systems.

Table 4: Resource Allocation and Provider Payment Systems

	Armenia	Bosnia and Herzegovina	Estonia	Kyrgyz Republic	Moldova
% of Public Expenditure for PHC	28	FBIH 43 RS 26	14	25	35
Payment system for PHC	Weighted per capita	Simple per capita	Weighted per capita + practice allowance+ fee-for-service	Weighted per capita	Simple per capita
Fund holding	No	No	No	Partial, for pharmaceuticals	No
Incentives	No	In RS for health promotion	Fee-for-service	No	No

8.4. SERVICE PROVISION

202. All the countries had introduced a defined benefit package or minimum state guarantees. All the countries had expanded the scope of services provided by family physicians in PHC, especially by introducing health education, health promotion and disease prevention. Further, the comprehensiveness of services provided had increased as more of the first contact and chronic illnesses were being managed by family physicians as compared with PHC doctors not trained as FM specialists. The extent of this expansion varied, with most extensive being in Estonia and the Kyrgyz Republic. Generally, access and accessibility to PHC had improved in all the countries studies in areas where FM reforms were introduced.

203. Gate keeping and first contact function was fractured in all the countries studied due to the ability of the users to directly access narrow specialists in PHC setting or in hospital outpatients. The continuity and comprehensiveness functions of family physicians working in PHC had been enhanced in all the countries studied but varied in magnitude. There was limited coordination function for the PHC level except for managing referrals. The number of referrals to hospital for first contact and chronic conditions had declined in three of the five countries studied and in two, Estonia and the Kyrgyz Republic, there was a shift between secondary and primary health care.

204. All the countries had introduced evidence-based guidelines for doctors and nurses. This was most extensive in Estonia and the Kyrgyz Republic, followed by Armenia, Bosnia and Herzegovina and Moldova (where only a few had been introduced) (Table 4).

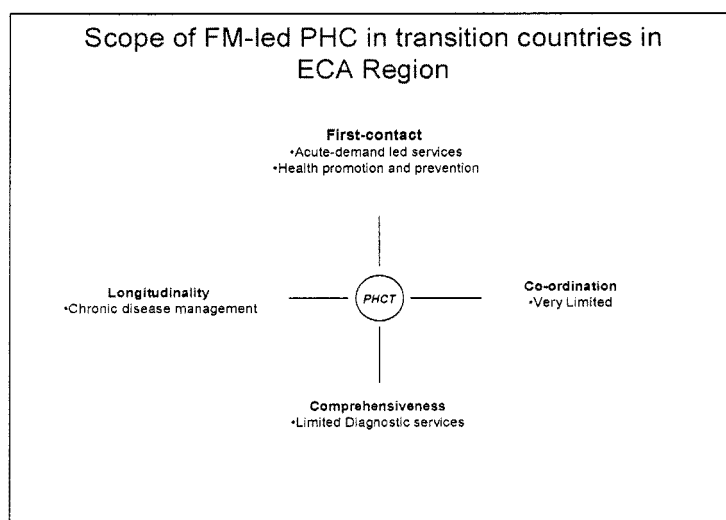
Table 5: Expansion of Service Provision

	Armenia	Bosnia and Herzegovina	Estonia	Kyrgyz Republic	Moldova
Delivery structures	Tripartite polyclinics, unified centers	Dom Zdravjla	FM Centers	FM Centers and FGPs	PHC centers
Direct access to narrow specialists	Yes	Yes	Yes	Yes	Yes
Fragmented PHC	Yes	Yes	Yes	No	Yes
Health promotion and prevention	Yes	Yes	Yes	Yes	Yes
Access	Improved	Improved	Improved	Improved	Improved
Expanded first contact function	Yes, 2	Yes, 3	Yes, 4	Yes, 4	Yes, 2
Degree of comprehensiveness	Basic	Intermediate	High	Intermediate	Basic
Continuity enhanced	Yes, 2	Yes, 3	Yes, 4	Yes, 4	Yes, 2
Coordination	Low	Low	Low	Low	Low
Guidelines for physicians	Yes, several	Yes, several	Yes, several	Yes, several	Yes, few
Guidelines for nurses	Yes, several	Yes, several	Yes, several	Yes, several	Yes, few
Reduced referrals to hospital	Yes	No data	Yes	Yes	No data
Secondary to primary shift	Low	No data	Yes	Yes	No data

Score: 1= low to 5= very high

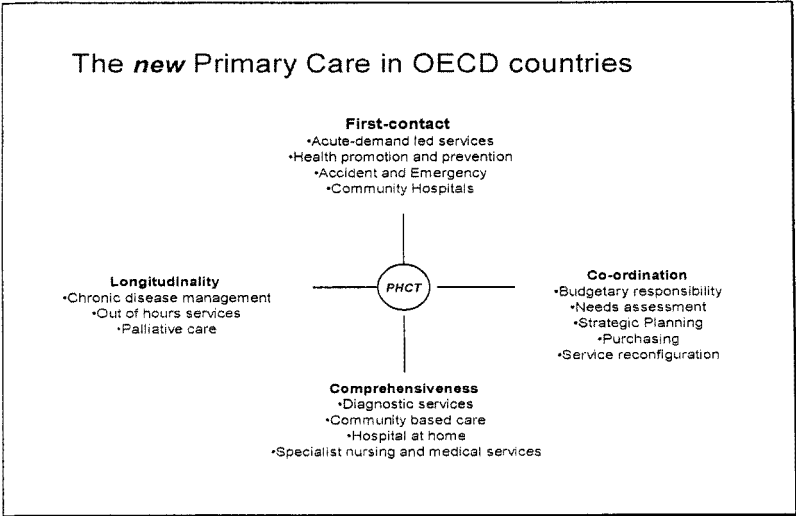
205. The countries studied have expanded the scope of services provided in PHC along key functions (Figure 2) with limited coordination, except for referrals, but the gate keeping function is fractured due to presence of narrow specialists who can be directly accessed in PHC or in hospital.

Figure 2: Scope of Services Provided by the FM-led PHC Team in Transition Countries



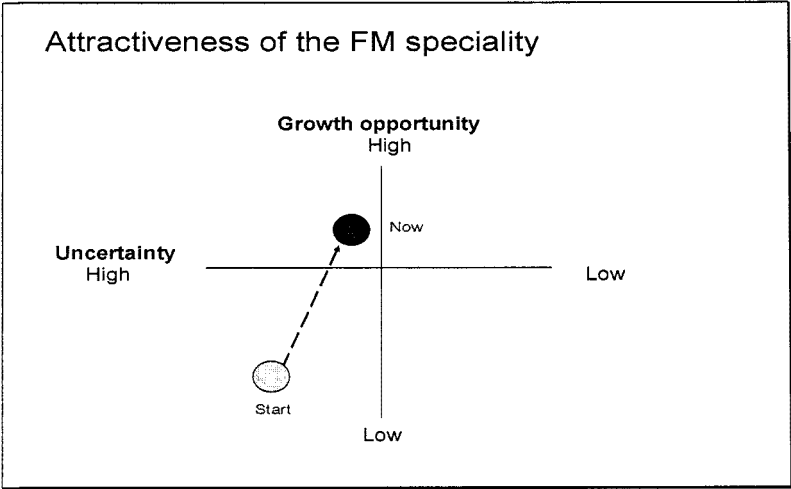
206. There is still a discernible gap between the scope of services provided in the countries studied when compared with those provided in OECD countries which have advanced FM-led PHC systems, such as Canada, Finland, Netherlands, Norway, Spain, and UK, where PHC has an extended role beyond gate keeping and managing first contact conditions (Figure 3). In these countries PHC actually ‘manages’ majority of the health problems (between 90-95%), including most of the acute and chronic illnesses both at home and in the community setting.

Figure 3: Scope of Services Provided by the FM-led PHC Team in Key OECD Countries



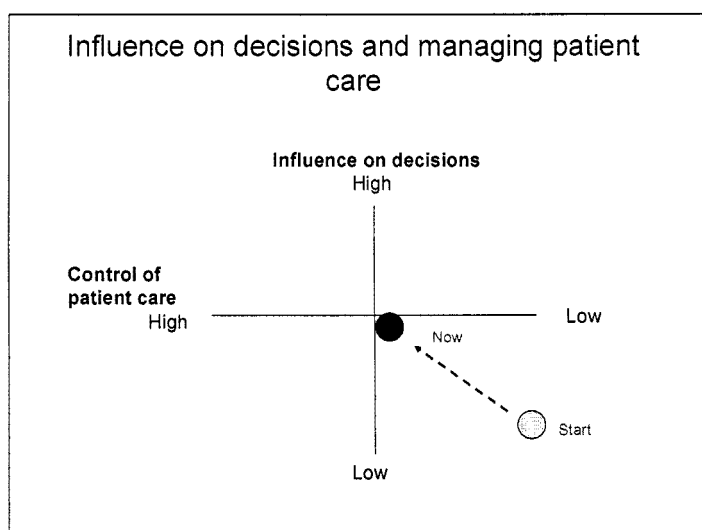
207. However, although the countries studied have not yet reached levels of ‘extended PHC’ services provided in OECD countries with advanced PHC systems, there is substantial progress. Attractiveness of FM as a specialty has increased (Figure 4), but much needs to be done to reduce uncertainty surrounding the status of the specialty as regards doctors working in PHC without specialist FM qualification and narrow specialists who work in PHC and hospitals. This will require a visible boost to provide incentives for family physicians with specialist training.

Figure 4: Attractiveness of Family Medicine as A Specialty



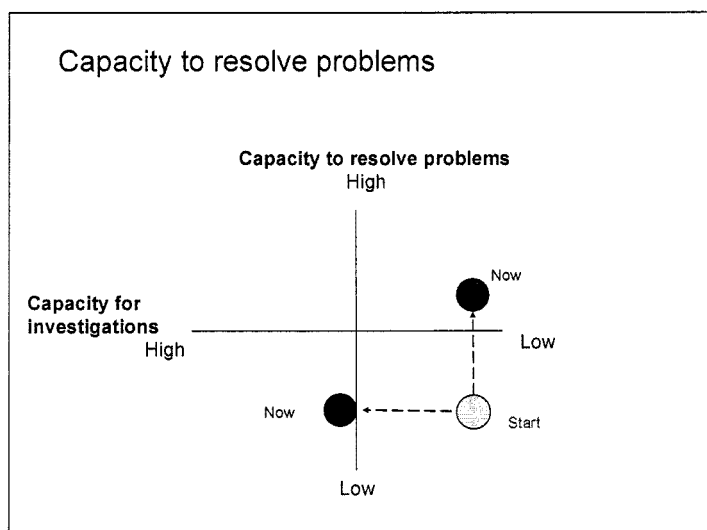
208. The ability of family physicians to influence decisions on the management of patient care has increased (Figure 5) due to enhanced gate keeping, broadened scope of services, evidence-based care guidelines which stipulate service boundaries and thresholds hospital referrals, and mechanisms which enable family physicians to manage hospital referrals (for instance, in Moldova and the Kyrgyz Republic, patients have to be referred to hospital to qualify for insurance coverage; those attending without referral have to bear the full costs).

Figure 5: Influence of Family Physicians on Patient Care



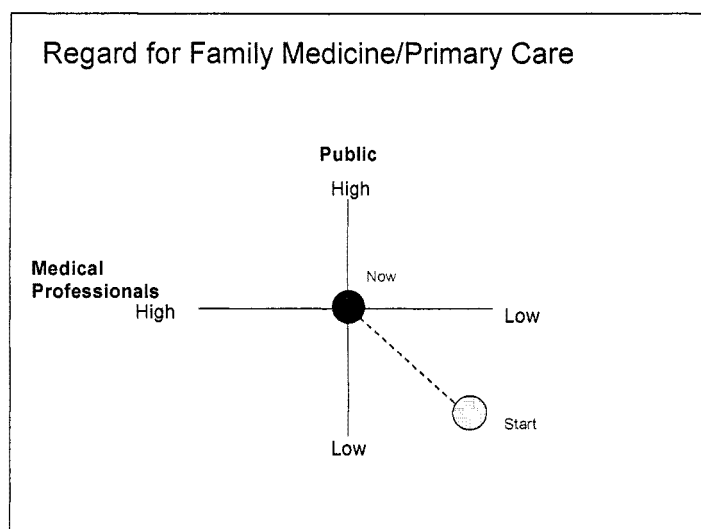
209. Doctors trained in FM have increased application of medical procedures, their use of diagnostic medical equipment, and expanded the scope of services they provide. This has increased their capacity to resolve problems at PHC level (Figure 6). However, the capacity of PHC needs to be further expanded to increase capacity for problem resolution and enable secondary to primary shift.

Figure 6: Capacity of Family Physicians to Resolve Problems



210. Improved training, strong advocacy by professional associations, establishment of chairs of FM at universities, recognition of FM as a specialty, provision of better quality services has helped increase the regard for FM among the medical profession and the public (Figure 7). However, there needs to be significant investment in communication activities to increase understanding of FM and improve understanding of the benefits of moving to an FM-centered PHC system.

Figure 7: Regard for Family Medicine



8.5. RESOURCE GENERATION

211. All of the countries studied have improved retraining programs to convert doctors working in PHC to FM specialists as well as residency programs for FM – the structure, program length, curriculum content, and location of training for the FM retraining and residency programs. The length of retraining programs varies from four months in the Kyrgyz Republic to three years in Estonia (Table 5).

Table 6: Training Programs

	Armenia	Bosnia and Herzegovina	Estonia	Kyrgyz Republic	Moldova
Retraining program	Two programs: 11 months and 18 months (both based on unified curriculum)	One-year program of additional training	Three years (80% in-service training and 27 weeks university-based)	Four months	Six months (with four weeks additional retraining)
Residency program	Two years	Three years	Three years	Two years	Three years

212. The FM residency programs in the countries surveyed have been developed in countries with support from international experts and in terms of structure and content are in line with FM residency programs offered by countries in Europe and the Americas (Annex 8).

9. CONCLUSIONS

9.1. CRITICAL SUCCESS FACTORS

213. The study has identified a number of critical success factors. These include: (i) branding FM and image building to improve the status of FM specialists as compared with narrow specialists; (ii) improved work environment and conditions for FM teams; (iii) improved communication between and within levels of the health system and with the public to share objectives and values of FM, develop trust and increase ownership; (iv) improved coordination of key agencies; (v) a holistic approach to reform with simultaneous multifaceted interventions to achieve an enabling legal environment, organizational restructuring to enable emergence of new provider forms with increased autonomy, new financing methods, resource allocation mechanisms that address inequities, provider payment methods that overcome limitations of systems based on line-item budgeting and salaries, contracts and evidence-based care guidelines to enhance quality and establish minimum standards; (vi) approaching reforms as a strategic change process; (vii) ensuring sensitivity and responsiveness to rapidly changing context; and (viii) having a clearly articulated and planned exit strategy.

9.2. MANAGING STRATEGIC CHANGE

214. Implementing PHC reforms is a complex strategic change process and there is insufficient managerial capacity to accelerate the pace of development. It is necessary to rapidly develop a critical mass of middle and senior level managers and health professionals to act as change agents along with local capacity to deliver training programs. Moving out of 'pilot' and 'experiment' mode is critical to institutionalize and systematize changes by timely update of laws and regulations to sustain the momentum.

215. Although it is necessary to invest in key individuals to develop champions of reform, this must be balanced with wider engagement of stakeholders to achieve consensus on reform objectives. Combining bottom-up and top-down approaches with simultaneous investment in key individuals, institutional development at different levels, and institutionalization will help increase chances of sustainability.

9.3. HOLISTIC APPROACH

216. The study clearly demonstrates the importance of a multifaceted and multi-level approach to reform. While new laws and regulations are developed and existing ones modified to create an enabling environment for change to occur, simultaneous interventions are needed to refine organizational structures, health system financing, resource allocation, provider payment systems, and service provision.

9.4. BEYOND PILOTS TO SYSTEM CHANGE

217. Moving out of 'pilot' and 'experiment' mode is necessary to institutionalize and systematize changes to sustain health system reform. Continuing development in a pilot mode, with multiple projects, result in sprinklings of pockets of innovation without coherent systemic change.

9.5. INSTITUTIONS VERSUS INSTITUTIONALIZATION

218. While it is necessary to invest in key individuals to develop champions of reform, this must be balanced with efforts to widely engage stakeholders to achieve consensus on reform objectives. The experience of the five countries studied confirms the importance of combining bottom-up and top-down approaches with simultaneous investment in key individuals, institutional development at different levels, and institutionalization through appropriate laws and regulations.

9.6. BALANCING SHORT AND LONG-TERM TIME HORIZONS

219. Balancing short-term success and sustainability is important. Achieving system change takes time. Short-term projects have value, but sustained support over a further five to eight year period is a realistic time scale to achieve and institutionalize change in the countries studied.

9.7. READING THE CONTEXT

220. The fluidity of the socio-political and the economic environment in the ECA Region means that political economy of health reforms and factors influencing strategic change must be adequately analyzed and addressed in the design phase and throughout implementation of programs. This analysis and monitoring should be continuous to ensure that generic technical solutions are not applied to complex socio-political contexts.

9.8. BRANDING FAMILY MEDICINE

221. Among the health professionals and the users, there are misperceptions of what FM is and how it can add value to the health system. This is in part due to limited efforts at communication. Inadequate and ineffective communication breeds resistance and creates barriers to change. The ‘fear of the unknown’, frequently quoted by the key informants, needs to be addressed through a well-developed communication strategy aimed at users, health professionals, managers and decision makers. There is a need to communicate the rationale and the substance of the FM reforms to the public at large; develop ways of assessing and benchmarking customer satisfaction; and through surveys of users elicit their expectations and experiences with PHC services.

222. Demonstration of ‘quick wins’ and effective communication of success stories will catalyze the development process in PHC. However, lack of successful role models in FM-centered PHC reforms in the region remains a problem.

9.9. COORDINATION

223. Coordination of international agencies is critical to ensure that development activities are not fragmented or duplicated and a coherent sector development program emerges. There are genuine efforts by international agencies to improve collaboration with evidence of a loose ‘operational SWAP’ emerging in some countries. However, complexity of coordinating the donor agencies or managing a SWAP should not be overlooked and appropriate and sustained support should be provided to the local counterparts.

9.10. LEVEL OF INTERVENTION

224. It is necessary to establish strong vertical and horizontal links and simultaneously work both at policy and operational levels – the former to institutionalize changes and the latter to create shared ownership, reduce resistance, learn lessons and develop a critical mass of professionals to implement policies. Governance structures can limit what can be achieved within the health system, at regional or organizational level, if there is no clear link to national policy level. A good example of policy disconnect is public administration reforms that do not adequately take into account impact on the health sector. Without linkages, local level initiatives and innovations have limited impact on central policies and cannot diffuse to other regions.

9.11. RESPONSIVENESS

225. The fluidity of the socio-political and the economic context in the ECA Region means that political economy of health reforms and factors influencing strategic change must be continually analyzed to ensure that generic solutions are not applied to complex socio-political problems. Given this fluidity, programs should adopt a flexible approach to implementation – allowing timely adaptation to contextual changes and responding to windows of opportunity, but without sacrificing a strategic approach.

9.12. MONITORING AND EVALUATION

226. A fundamental problem with the PHC reforms in the ECA region is the lack of systematically collected data that can be analyzed to demonstrate changes in health system objectives (such as equity, efficiency, effectiveness and choice) and health outcomes which can be attributed to developments in PHC. There is insufficient investment in monitoring and evaluation and limited analytical capacity in the

countries studied. Resources are needed to develop appropriate metrics, information systems and analytical capacity to monitor progress of PHC reforms and inform policy.

9.13. DISSEMINATION AND CROSS LEARNING

227. Regional collaborations and regular exchanges to share lessons are highly valued by the respondents and should be encouraged and supported, with dissemination of experience within and between countries. Key documents (such as technical reports) should be available in local languages and disseminated widely to local counterparts.

9.14. EXIT STRATEGY

228. On the whole, countries studied have succeeded in introducing FM-centered PHC systems, with significant scale up and institutionalization in the Kyrgyz Republic and Estonia. Good collaboration has been achieved between the international agencies and the government with an operational SWAP established. The case studies demonstrate that the World Bank can add much value to the reform process. However, success brings with it responsibility. It is important that clear exit strategies are developed and agreed with local counterparts to ensure there are no gaps between projects to sustain the transformation process.

10. APPENDIX

10.1. ANNEX 1: DEFINITIONS OF PHC

229. Defining FM and primary care is fraught with difficulties. An attempt at defining primary care in the US yielded 92 definitions.¹¹⁶

10.1.1. Primary care as a concept

230. In the Alma Ata declaration, the WHO defined primary health care as ‘essential health care based on practical, scientifically sound and socially acceptable methods and technology, made universally available to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination.’¹¹⁷ Although many transition countries have yet to attain a PHC level defined in the Alma Ata declaration, many industrialized countries in the European Region have surpassed it.¹¹⁸ For many countries, PHC is viewed as ‘a strategy to integrate all aspects of health services’.¹¹⁹

10.1.2. Primary care as a level

231. In 1920, the Dawson Report distinguished three major levels of health services in the UK: (i) primary health centers, (ii) secondary hospitals, and (iii) teaching hospitals.¹²⁰ Although this structure prevails in most countries, the content and the process of what is delivered in primary and secondary care has changed significantly in the last decades. As a level of care in the health system, PHC is the point of first contact and where 90 percent of health problems are dealt with. As a strategy, PHC envelopes the notion of accessible care relevant to the needs of the population, functionally integrated, based on community participation, cost-effective and characterized by collaboration between sectors of the society. As a philosophy, primary care underpins equitable service delivery to the individual and the society through an inter-sectoral approach.

10.1.3. Primary care defined in terms of content

232. In many health systems, particularly in developing and transition country contexts, PC is defined in a constrained manner as ‘basic’ or ‘essential’ set of health interventions enshrined in the Alma-Ata Declaration.¹²¹ In low income countries PHC is often equated with ‘selective vertical programs’¹²²⁻¹²³ and provided as an ‘essential package of services’ to address the main causes of the disease burden – communicable disease, perinatal and maternal deaths.¹²⁴ This reductionist approach can lead to a conceptual fixation – equating primary care with selective vertical programs¹²⁵⁻¹²⁶ or just as an ‘essential package of services’. The ‘selective primary care’ approach has been widely criticized for lacking empirical foundation¹²⁷, as a reinvention of the traditional technically oriented vertical programs.¹²⁸ It is seen by some as being based on value judgements¹²⁹⁻¹³⁰ and often counterproductive¹³¹ – adversely impacting on the health developmental process.¹³²

233. Alternative to ‘selective PC’ is ‘comprehensive PC’ which prevails in many developed countries and comprises a wide range of promotive, preventive, curative and rehabilitative activities. It is argued that comprehensive PC is also affordable and deliverable in a developing country context.¹³³

Table 7: Primary Care Services

Health education and promotion
Health maintenance (reassurance of worried, well, maternity care)
Prevention of disease through immunization, screening and case finding
Diagnosis and management of common emergencies, as well as acute and chronic conditions, delivered in a clinic or in the patient's home
Antenatal and postnatal care
Contraceptive advice and provision
Follow up and continuing care of chronic and recurring disease
Rehabilitation after illness
Provision of ancillary services such as physiotherapy and dietetics
Terminal care
Coordinated services for the mentally ill, elderly and children
Help for patients to make use of appropriate services
Health development (cross-sectoral action to improve the environmental economic and social inputs into health)

10.1.4. Primary care defined in terms of team membership

234. The PC team can vary from a community nurse, a feldsher or a rural general practitioner to a multidisciplinary team of up to thirty comprising specialist nurses, managers, support staff FM and other primary care specialist. The UK Royal College of General Practitioners describes a 'primary care professional' as 'any health professional whose professional qualification is in health care, whose professional qualification is recognized by a statutory registration council approved by the Parliament, who sees clients/patients direct without any referral from health professional, or who works within a primary medical or nursing care organization that offers patients open access'.¹³⁴ In countries such as the UK and Netherlands, where PC is well developed the team membership of thirty is not unusual.¹³⁵

Table 8: Membership of the Primary Care Team

Medical	Paramedical	Administrative	Therapists	Social
General practitioner	Community nurse	Practice manager	Physiotherapist	Social worker
Dentist	Practice nurse	Receptionist	Chiropodist	Community psychiatrist
Community geriatrician	Ophthalmic optician	Assistant	Speech therapist	Psychologist
School medical officer	Midwife	Secretary	Osteopaths	Counselor
	Health Visitor		Dietician	Domiciliary aid
	Pharmacist			

10.1.5. Primary care as a key process

235. Primary care is often equated with a 'gate keeping' role.¹³⁶ However, it plays a more fundamental role than just gate keeping. Primary care is a key process within the health system.¹³⁷ It is first contact, front-line care, ongoing care, comprehensive care and coordinated care.¹³⁸ First contact care is accessible at the time of need; ongoing care focuses on the long-term health of a person, not on the short-term duration of the disease; comprehensive care is a range of services appropriate to the common problems in the population available at the primary care level; and coordination is a role by which primary care acts to coordinate other specialist services that the patient may need.

10.2. ANNEX 2: DEFINING FAMILY MEDICINE AND THE ROLE OF THE FAMILY PHYSICIAN

236. The WHO Regional Office for Europe defines the characteristics of FM in terms of its scope, function and orientation.¹³⁹

Table 9: Family Medicine Characteristics

General – unselected health problems of the whole population

Continuous – primarily person-centered rather than disease-centered, long-standing personal relationship between patient and doctor

Comprehensive – provides integrated health promotion, disease prevention, curative, rehabilitative and supportive to individuals

Coordinated – dealing with further referrals to other health professionals

Collaborative – working with other medical, health and other social care providers delegating care where necessary – they are managers of their patient care

Family-orientated – addressing health problems of the individual in the context of the family incorporating their cultural and social circumstances

Community-orientated – patient's problems seen in the context of the community, doctors being aware of the health needs of the general population

237. WONCA Europe and the European Society of General Practice/Family Medicine, define family medicine as: 'General practice/family medicine is an academic and scientific discipline, with its own educational context, research, evidenced base and clinical activity and clinical specialty oriented to primary care.'¹⁴⁰ The "European Definition for the discipline and specialty of General Practice/Family Medicine" articulates that general practice/family medicine is an academic and scientific discipline, with its own educational content, research, evidence base and clinical activity, and a clinical specialty orientated to primary care.¹⁴¹ The document, agreed by 25 countries in Europe, elaborates on the 'specialty of General Practice/Family Medicine' and states that "Family doctors are specialist physicians trained in the principles of the discipline. They are personal doctors, primarily responsible for the provision of comprehensive and continuing care to every individual seeking medical care irrespective of age, sex and illness. They care for individuals in the context of their family, their community, and their culture, always respecting the autonomy of their patients. They recognize they will also have a professional responsibility to their community. In negotiating management plans with their patients they integrate physical, psychological, social, cultural and existential factors, utilizing the knowledge and trust engendered by repeated contacts."

238. The characteristics of family medicine are that it: (a) is normally the point of first medical contact within the health care system; (b) makes efficient use of health care resources through coordinating care, working with other professionals in the primary care setting, and by managing the interface with other specialties taking an advocacy role for the patient when needed; (c) develops a person-centered approach, orientated to the individual, his/her family, and their community; (d) has a unique consultation process, which establishes a relationship over time, through effective communication between doctor and patient; (e) is responsible for the provision of longitudinal continuity of care as determined by the needs of the patient; (f) has a specific decision making process determined by the prevalence and incidence of illness in the community; (g) manages simultaneously both acute and chronic health problems of individual patients; (h) manages illness which presents in an undifferentiated way at an early stage in its development; (i) promotes health and well being; (j) has a specific responsibility for the health of the

community; (k) deals with health problems in their physical, psychological, social, cultural and existential dimensions.

239. These Eleven Core Competencies are recognized as being essential to the discipline – irrespective of the health care system in which they are applied – and are the central characteristics which define the discipline. These competencies are clustered into six core competencies (with reference to the characteristics): (i) primary care management (a,b); (ii) person-centered care (c,d,e); (iii) specific problem solving skills (f,g); (iv) comprehensive approach (h,i); (v) community orientation (j); and (vi) holistic modeling (k). To practice the specialty the competent practitioner implements these competencies in three areas: (i) clinical tasks; (ii) communication with patients; and (iii) management of the practice.

240. The interrelation of core competencies, implementation areas and fundamental features, characterizes the discipline and underlines the complexity of the specialty. It is this complex interrelationship of core competencies that guide and are reflected in the development of related agenda's for teaching, research and quality improvement.

10.3. ANNEX 3: FACTORS WHICH INFLUENCE QUALITY OF CARE DELIVERED BY FAMILY PHYSICIANS

241. Determining which variables influence the care process and outcome is a complex task – given the difficulty in controlling for the variables and confounding. A further difficulty relates to defining quality. Frameworks used to assess quality and the indicators used to measure quality vary by country. Patient perceptions of quality differ from those used by the regulators, financing agents and providers. Even when there is consensus on the indicators these may not be good predictors of quality.¹⁴² However, many studies have explored these factors.

10.3.1. *Organizational arrangements*

242. The quality of care – as measured by process and outcome of health care, outpatient referrals, uptake of breast and cervical screening, prescribing patterns, and night visits – varies significantly between general practices in England due to a number of factors.¹⁴³⁻¹⁵³ Campbell et al. found that four variables were good predictors of quality of care: (i) the booking interval for routine consultations – with longer consultations leading to higher quality care; (ii) the size of the practice – smaller practices scored better than larger ones for access to care. However, larger practices had had higher quality scores for diabetes care as compared with smaller ones; (iii) deprivation predicted poorer uptake of preventive care, highlighting that quality of care in general practice is strongly influenced by environmental factors; and (iv) an environment that was conducive to teamwork was associated with high quality care for diabetes, improved access, enhanced continuity, and increased overall patient satisfaction.¹⁵⁴

243. Although longer consultations are associated with higher patient satisfaction, the consultation length in FM varies greatly in different countries. A study of six European countries showed that the consultation length was influenced by: (i) new and old problems – consultations lasted longer for new problems; (ii) practice characteristics – consultations lasted longer in city based practices than rural practices; (iii) doctors' characteristics – positive orientation to psychosocial problems meant longer consultations; (iv) age and gender of the doctor had no impact on the duration of the consultation; (v) doctors' workload – workload had a negative influence on consultation time; and (vi) patient characteristics – the patients' sex and age – women and older patients had longer consultations.¹⁵⁵ Quality of care is influenced by structural and process aspects of practice organization. Smaller practices are seen as more accessible and achieve higher levels of patient satisfaction.¹⁵⁶⁻¹⁵⁷ Availability of equipment and medical records have positive relationship with quality. Time spent on continuing medical education was positively associated with better performance of doctors. Efficient organization of practice, especially with data collection, prescription and referrals, predicted improved performance. Increasing age of FP predicted poorer performance and solo practice adversely affected communication with patients.¹⁵⁸

Gate keeping role

244. Gate keeping strengthens the position of the family physician as the point of first contact in the health system and expands the range of conditions managed without adversely influencing the diagnostic or management style of the family physicians or their coordination of patient care.¹⁵⁹⁻¹⁶¹ Increase in the frequency of first contact episodes with the family physician reduces the extent of self-referral and may influence referral rates but one study showed that 75 percent of the variation in referral rates for specific conditions was attributable to the characteristics of the presenting problem.¹⁶²

Information Systems

245. A systematic review of impact of computerized decision support systems on quality of care provided by physicians concluded: "... strong evidence exists that some computerized decision support systems can improve physician performance..." This was particularly true with the use of preventive

reminder systems and drug dosing.¹⁶³ Similarly, a different systematic review of the use of computers in primary care found an increase in immunization rates and other preventive tasks with a minimal increase in consultation length.¹⁶⁴ Other studies conclude that the use of electronic medical records improves quality of care but makes extra demands on physicians' time.¹⁶⁵⁻¹⁶⁶

10.3.2. Financing and provider payment systems

246. Impact of different financing schemes on behavior of family physicians has been widely studied. For instance, in the UK, several studies explored the behavior of family physicians to incentives introduced by the GP Fund holding scheme – when the GPs were given budgets to purchase hospital services and to provide incentives to increase PHC based management of patients and reduce unnecessary referrals to hospital. Some of these studies produced equivocal results on referral patterns,¹⁶⁷⁻¹⁶⁹ while others found an increase in referrals in the year preceding entry to fund holding followed by a decrease in the first year of the scheme¹⁷⁰, lower referral rates as compared with non-fundholders,¹⁷¹ or slower rate of rise in referral rates as compared with non-fund holding practices.¹⁷² Dusheiko¹⁷³ and Gravelle¹⁷⁴ empirically confirmed that fund holders referred patients to narrow specialist less often than non-fund holders. The general conclusion of these studies is that the GPs behaved as economic agents (income maximizers), as there were positive and statistically significant increases in overall referrals in the year before entry to the scheme (as the budgets were set according to the referral volume in the year prior to entry) and a decline after entry.

247. If family physicians are paid by fixed budgets and bear the full monetary and non-monetary cost of providing services to patients, then they provide an efficient mix of services to patients but the level falls to a minimum as the physician has no incentive to provide additional or high quality services beyond the minimum required.¹⁷⁵ Payment by salary, with no financial incentive to provide high quality services, creates an incentive to minimize effort and refer excessively to hospitals to reduce workload.¹⁷⁶

248. When family physicians are paid by capitation they receive a fixed payment for each patient on their list and bear full monetary and effort cost of providing care for their patients. Therefore, they have incentives to employ inputs efficiently, but also to provide high quality services to increase demand to register new patients.¹⁷⁷ A national study of the referral practices of US physicians found that paying physicians by capitation did not influence rates of referral.¹⁷⁸ Fee for service (FFS), especially selective FFS, can help improve the quality of services.¹⁷⁹ However, there is a risk of overprovision of services as FFS creates an incentive for physicians to provide excessive services that are remunerated.¹⁸⁰ When there is competition between providers, FFS may help improve quality but will not prevent overprovision of services.¹⁸¹

249. Empirical work from Nordic countries suggests that change from pure capitation to a mixed payment system, including FFS elements, led to an increase in the intensity of diagnostic and curative services provided by family physicians, but reduced the referrals and prescriptions.¹⁸²⁻¹⁸³ A change in payment mode from practice allowance-cum-FFS to capitation-cum-FFS resulted in increased referral rates, as the new mode of payment gave an incentive to GPs to increase referrals to reduce workload and create space for new services to be provided to attract new patients – thereby attracting greater FFS and per capita payment.¹⁸⁴

250. Linking family physician remuneration to quality targets improved quality of services, as represented by achieving health targets for immunization and cervical screening.¹⁸⁵ Professional behavior of the family physician is influenced by not just economic considerations, but also by status seeking, intrinsic motivation and altruism.¹⁸⁶⁻¹⁸⁷ Studies demonstrate a reasonably strong and consistent association between continuity and satisfaction for both the patient and the doctor. A patient's enablement and satisfaction with a consultation is strongly associated with visiting the same doctor. When doctors know patients well, compliance and the accuracy of diagnosis are increased.¹⁸⁸⁻¹⁹⁰ Patient satisfaction is higher in family practices that are not too large and have personal lists.¹⁹¹

251. Additional training of family physicians to deliver patient-centered care results in greater attention to the consultation process – leading to improved communication with patients and greater patient satisfaction with treatment and well-being.¹⁹² A patient-physician partnership, with collaborative goal-setting that involves agreed joint action plans, improves patient care and can improve outcomes in asthma, diabetes, arthritis, and other chronic conditions.¹⁹³

10.3.3. Continuing medical education

252. There are several studies which demonstrate good outcomes for the provision of Continuing Medical Education (CME) programs for GPs to improve performance, competencies and changes to practice.¹⁹⁴⁻¹⁹⁷ A systematic review of CME for family physicians found that CME increased effectiveness of GP work. The study concluded that “Controlled trials of CE strategies suggest effectiveness is enhanced by personal feedback and work prompts.”¹⁹⁸

253. A systematic review of 99 trials, which included 160 CME programs for physicians that evaluated the effect of CME on physicians’ performance and health outcomes, concluded that “almost two thirds of the interventions (101 of 160) displayed an improvement in at least one major outcome measure. The review showed that around 70 percent of the studies demonstrated a change in physician performance. There was a positive change in health outcomes in 48 percent of CME interventions which aimed at improving health care outcomes. The review concluded “... widely used CME delivery methods such as conferences have little direct impact on improving professional practice. More effective methods such as systematic practice-based interventions and outreach visits are seldom used by CME providers.”¹⁹⁹

10.4. ANNEX 4: THE EVALUATION FRAMEWORK

254. A health system is made up of elements that interact. The sum of the system element is greater than its parts. The interactions of these elements affect the achievement of health system goals and objectives. Therefore, any framework for analyzing health systems should be able to capture not just the changes in goals and objectives, but also changes in system elements.

255. An evaluation should describe key features of the main policies, structural changes, new financing and care provision mechanisms and processes introduced as a result of reforms. Where possible, the evaluation should also describe and measure changes in health system performance and try and establish causal linkages between intervention and outcome – to assess the extent to which the changes observed can be attributed to the reform implemented. However, in real life attribution and establishing causal links are not easy. Health reforms do not happen in a laboratory.²⁰⁰ They are not ‘ahistorical’ or ‘acontextual’, but tend to follow a trajectory of development and changes over a period of time – and hence can be considered to be part of a continuum rather than a discrete event. Further, reforms are not isolated and clearly discernable experimental interventions in a controlled setting, but are multifaceted and complex organizational change programs.

256. A further difficulty with evaluation of health reforms arises with measuring health outcomes which are often influenced by multiple personal and non-health factors – such as the stage of economic development in the country, income and education levels, environment and housing.²⁰¹⁻²⁰² In practice, it is difficult to separate and control for the contextual factors from the policy interventions and clearly establish causal links. Given these difficulties, any method used to evaluate complex policy interventions will have limitations in establishing causal links. A further difficulty arises in comparing different countries or settings where it often difficult to draw conclusions from international healthcare systems comparisons.²⁰³ Nevertheless, a systematic approach to evaluation can yield useful information which can be used to reach plausible conclusions about cause and effect.

257. A number of frameworks have been developed for analyzing the performance of health systems. For instance, the WHO Performance Assessment Framework (WHO PAF) is used for comparative evaluation of health systems performance of the member countries and provided the basis of the World Health Report 2000.²⁰⁴ The WHO PAF assesses health systems performance in terms of attainment of a number of goals – average health level, distribution of health, average responsiveness, distribution of responsiveness and fairness of financial contribution. Both the World Health Report 2000 and the WHOPAF generated significant debate on measuring health system performance and the framework has been further developed and refined.²⁰⁵

258. There are other frameworks that focus on efficiency, financing, equity of access and financial sustainability. In relation to PHC, there are evaluation frameworks that focus on measuring quality.²⁰⁶⁻²⁰⁹ These frameworks have strengths, but also limitations. Many of the existing frameworks for health systems/PHC performance assessment and evaluation measure health sector inputs, resources utilization, activity levels and changes in processes rather than outputs or outcomes. This is probably because health sector inputs and processes are easier to measure and the data on these can be obtained in the short-term. Any analytical framework used to assess health systems should capture not just inputs and processes but also outputs and outcomes of the system, as well as the interrelationships between the system components.²¹⁰ Moreover, the wider context, within which the health system functions and interacts, also needs to be understood and contextual changes captured in the analysis.²¹¹⁻²¹³

259. Kutzin suggests a three-step approach to evaluating health reforms describing clearly: (i) key contextual factors driving reform; (ii) the reform itself and its objectives; and (iii) the process by which the reform was (is being) implemented.²¹⁴ To this approach three further elements can be added: (iv) describing clearly the changes introduced by the reforms; (v) analyzing the impact of these changes on

health system objectives and goals; and (vi) establishing whether the reforms have achieved the policy objectives set by the Government – or the agency leading the reforms. The approach used in this study builds on that developed by Kutzin, but also draws on a framework developed to assess health systems.

10.5. ANNEX 5: SUMMARY OF FACILITY SURVEY INSTRUMENT

Section	Subjects
1. General information about PHC facility	Classification by the type of facility and administration Demographic and geographic data Sanitation and conditions
2. Scope of services	A list of services provided by PHC facility, characterizing: Breadth of services, extended care, support services
3. Organization	A list of questions characterizing general management of PHC facility, management of finances and provision of services. Inclusiveness into decision making
4. Availability Data	Questions about the availability of: Personnel and changes in staffing; Buildings and utilities Medical and non-medical equipment. Medical equipment is divided into general, obstetric/gynecological, ophthalmology, ENT, respiratory, sterilization and surgical Drugs and other consumables, with subdivision on vaccines and contraceptives Services and workload of personnel
5. Comprehensiveness	A list of 11 activities at first contact, such as: - Emergency, Chronic Illness, Antenatal care, Postnatal care, Vaccination, Certification and administrative forms Questions about investigation procedures and referrals.
6. Quality	Data on supervision activities, use of clinical guidelines, availability of essential drugs and ability to use them. Data on quality on such activities as: Vaccination, Prenatal consultation, Family planning, Other preventative programs, Management of equipment and the data routinely collected
7. Financial data	Evolution of budgets and expenditures

10.6. ANNEX 6: SUMMARY OF NIVEL TASK PROFILE INSTRUMENT

Section	Parameters
1. Practice and personal information	Demographic data; Education and training; Employment status; normal working hours; Characterization of the population and location of the practice; Working arrangement; teamwork; Average workload; home visits; emergency services; Practice organization: staff and equipment; Medical record keeping; use of computer
2. Provision of medical technical procedures	A list of 14 medical techniques, such as: Wedge resection of in growing toenail; Wound suturing; Insertion of IUD; Fundoscopy; Strapping an ankle; Setting up an intravenous injection etc. Perceived involvement of the GP if patients in the practice population need such procedures – indicated using a five-point scale ranging from '(almost) always' to 'seldom/never'.
3. Provision of first contact care	27 Short case descriptions of patients' health problems such as: Child with a rash; Woman aged 18 asking for oral contraception; Man aged 24 with chest pain; Man aged 50 who burnt his hand; Woman aged 50 with a lump in her breast; Woman aged 60 with acute symptoms of paralysis/paresis; Man aged 29 with lower back pain; Couple with relationship problems; Woman aged 50 with psychosocial problems related to her work. Perception regarding prevalence of these conditions and presentation to the FP – indicated using a five-point scale ranging from '(almost) always' to 'seldom/never'.
4. Provision of screening, preventive care etc.	Questions about the routine of the GP concerning: Measuring blood pressure; Measuring blood cholesterol level; Taking cervical smears for cancer screening; Examination for breast cancer screening. Questions about involvement of GPs in: Health education clinics on smoking cessation, food intake and alcohol consumption; Intra-partum care; Pediatric surveillance clinics; Family planning/contraception; Homeopathic medicine
5. Provision of disease management	A list of 17 diseases, such as: Hyperthyroidism; Peptic ulcer; Congestive heart failure; Peritonsillar abscess; Uncomplicated diabetes type 2; Depression. Perceived involvement of the GP in the treatment if these cases occur in the practice population could be indicated on a five-point scale ranging from '(almost) always' to 'seldom/never'.
6. Job satisfaction	Seven statements on aspects of GPs' work, such as: 'My work still interests me as much it ever did'; 'Assuming that pay and conditions were similar, I would do non-medical work' Agreement expressed on a five-point scale, varying from 'agree strongly' to 'disagree strongly'.

10.7. ANNEX 7: QUANTITATIVE ANALYSIS OF REFERRAL AND ADMISSION DATA

260. This element of the evaluation aimed to establish to what extent the reforms led to attainment of key attributes of a PHC system – namely, first contact, continuity, comprehensiveness and coordination. First contact refers to care accessible at the time of need, especially for common acute conditions which the PHC team should be able to diagnose and manage – without referral to secondary care. This is measured by looking at ‘avoidable hospitalizations’ for common acute conditions – acute ENT problems, urinary tract infections (UTI) and bronchiolitis.

Table 10: Effectiveness Indicators – First Contact Care

Acute conditions
Aggregate referrals by FPs to hospital outpatients for acute ENT problems (Otitis media ICD 10 codes H65 and H66 and tonsillitis ICD 10 code J03)
Aggregate referrals by FPs to hospital for acute UTI (ICD 10 code N39.0)
Aggregate referrals by FPs to hospital for LRTI (bronchitis, bronchiolitis, pneumonia) in children aged under 5 (ICD 10 codes J10-18 and ICD 10 codes J20 and J21)

261. Ongoing care focuses on the long-term health of a person where PHC manages the health of the person to prevent illness and worsening of chronic conditions. Evaluation in this area focused on management of common chronic conditions, which should be effectively managed by the PHC team with low referral rates to secondary level – for instance hypertension, ischemic heart disease, non-insulin dependent diabetes mellitus, depression and asthma (Table 7).

Table 11: Effectiveness Indicators: Continuity of Care

Ongoing care: Chronic illness
Aggregate number of hospitalizations for hypertension (ICD i10)
Aggregate number of referrals to hospital admission for hypertension
Aggregate number of hospitalizations for NIDDM (ICD E11)
Aggregate number of referrals to hospital for NIDDM
Aggregate number of hospitalizations for asthma (ICD J45)
Aggregate number of referrals to hospital for asthma
Aggregate number of referrals and admissions for ischemic heart disease/angina (ICD i20 & ICD i25)

262. In the Kyrgyz Republic, the researchers were able to access three-year data on referral and admission patterns from the Health Insurance Fund; but this data was not routinely and systematically collected in Armenia, Bosnia and Herzegovina and Moldova.

10.8. ANNEX 8: SUMMARY OF FAMILY MEDICINE TRAINING PROGRAMS IN EUROPE AND AMERICAS

263. The requirements for training of family physicians vary by country. In European, North American, Australian and some Latin American countries, formal specialist training is required.

Table 12: Educational Requirements for Family Physicians

Country	Educational Requirements
United Kingdom	Five (sometimes six) years of undergraduate education and training in medicine. One year of pre-registration practice (residency). Three years postgraduate residency for general practice specialty
US	Four years of undergraduate university education Three years postgraduate residency training
Canada	Three to four years undergraduate university education. Four years of medical education. Two years of postgraduate residency
Australia	Four to seven years of medical school. Entry to medical school can be direct or after first degree. One year of internship in hospital. Two to three years of postgraduate residency.
Japan	Six years of medical school including practical training Post-graduate training before independent practice
Finland	Six years of medical school Two years of practical training in hospitals and health centers Six years post-graduate training

264. The countries with the most successful primary care programs tend to have specialist family physicians that are called general practitioners in some countries. In Britain, for example, General Practitioners (GPs) have three years of training after medical school, which specifically prepares them for their primary care role. They must pass a national exam specific to General Practice before practicing independently. The qualified General Practitioners have their own powerful professional association. Canada, Australia, and Finland also have training structures which specifically prepare physicians for the role as first contact physicians.

11. REFERENCES

1. Aaraas I, Søråasdekkkan H, Kristiansen IS. Are general hospitals cost saving? Evidence from a rural area of Norway. *Family Practice* 1997; 14:397-402.
2. Aiken KH, Lewis CE, Craig J, Mendenhall RC, Blendon RJ, Rogers DE. The contribution of specialist to the delivery of primary care: a new perspective. *N Eng J Med* 1979; 300: 1363-1370.
3. Alpert JJ et al. Delivery of health care for children: Report of an experiment. *Paediatrics* 1976; 57: 917-30.
4. Annual Satisfaction Survey with Health Services. Emor/Estonian Health Insurance Fund. 2001, 2002 and 2003.
5. ASTP 'baseline Survey' Report 2003, American University of Armenia.
6. Atun R A. "What are the advantages and disadvantages of restructuring a health care system to be more focussed on primary care services?" World Health Organization Health Evidence Network. World Health Organization Regional Office for Europe. World Health Organization. Copenhagen. 2004
7. Atun R. A. et al. Review of Experience of Family Medicine in Europe and Central Asia: Republic of Armenia Case Study. Report No. 32354-ECA. Human Development Sector Unit. Europe and Central Asia Region. May 2005
8. Atun R. A. et al. Review of Experience of Family Medicine in Europe and Central Asia: Bosnia and Herzegovina Case Study. Report No. xxxxx-ECA. Human Development Sector Unit. Europe and Central Asia Region. May 2005
9. Atun R. A. et al. Review of Experience of Family Medicine in Europe and Central Asia: Kyrgyz Republic Case Study. Report No. 32354-ECA. Human Development Sector Unit. Europe and Central Asia Region. May 2005.
10. Atun RA et al. Review of Experience of Family Medicine in Europe and Central Asia: Moldova Case Study. Report No. xxxxx-ECA. Human Development Sector Unit. Europe and Central Asia Region. May 2005
11. Atun RA, Lennox-Chhuggani N. Health System Development: A Review of the Tools used in Analysis and to Support Decision Making. Discussion Paper. (2003) Centre for Health Management. Tanaka Business School. Imperial College London.
12. Atun RA. "What are the advantages and disadvantages of restructuring a health care system to be more focussed on primary care services?" World Health Organization Health Evidence Network. World Health Organization Regional Office for Europe. World Health Organization. Copenhagen. 2004
13. Atun RA. Evaluation of PHC Reforms in Estonia. World Health Organization Regional Office for Europe. Copenhagen 2005. (In Press)
14. Avery A, Pringle M. Emergency care in general practice. *British Medical Journal* 1995; 310: 6.
15. Baker JE, Goldacre M, Muir Gray JA. Community hospitals in Oxfordshire: their effect on the use of specialist inpatient services. *J Epidemiol Comm Health* 1986; 40:117-120.
16. Baker R, Streatfield J. What type of practices do patients prefer? Exploration of practice characteristics influencing patient satisfaction. *Br J Gen Pract* 1995; 45: 654-659.
17. Baker R. Characteristics of practices, general practitioners and patients related to levels of patients' satisfaction with consultations. *Br J Gen Pract* 1996; 46: 601-605.

-
18. Baker R. Characteristics of practices, general practitioners and patients related to levels of patients' satisfaction with consultations. *Br J Gen Pract* 1996; 45: 654-659.
 19. Baker R. Characteristics of practices, general practitioners and patients related to levels of patients' satisfaction with consultations. *Br J Gen Pract* 1996; 46: 601-605.
 20. Banerji D. Primary Health Care: selective or comprehensive? *World Health Forum* 1984; 5: 312-315.
 21. Basch P. Textbook of International health. New York. Oxford University Press, 1990
 22. Bodenheimer T, Lorig K, Holman H, Grumbach K. Patient self-management of chronic disease in primary care. *JAMA* 2002; 288: 2469-2475.
 23. Boerma W, Groenewegen PP, Van Der Zee J. General Practice in urban and rural Europe: The range of curative services. *Social Science and Medicine* 1998; 47: 445-453.
 24. Boerma WG, van der Zee J, Fleming DM. Service profiles of general practitioners in Europe. European GP Task Profile Study. *British Journal of General Practice* 1997; 47: 481-486
 25. Boerma WGW, Van Der Zee J, Fleming D. Service profiles of general practitioners in Europe. European GP task profile study. *British Journal of General Practice* 1997; 47: 481-486.
 26. Boerma WGW. Profiles of General Practice in Europe. An International Study of Variation in the Tasks of General Practitioners. NIVEL. Utrecht. Netherlands 2003.
 27. Calnan M, Katsoyiannopoulos V, Ovcharov VK et al. Major determinants of consumer satisfaction with primary care in different health systems. *Fam Pract* 1994; 11: 468-478.
 28. Campbell SM, Hann M, Hacker J, Burns C, Oliver D, Thapar A, et al. Identifying predictors of high quality care in English general practice: observational study. *BMJ* 2001; 323: 784-787.
 29. Campbell SM, Hann M, Hacker J, Burns C, Oliver D, Thapar A, et al. Identifying predictors of high quality care in English general practice: observational study. *BMJ* 2001; 323: 784-787.
 30. Campion-Smith C, Smith H, White P, Baker E, Baker R, Holloway I. Learners' experience of continuing medical education events: a qualitative study of GP principals in Dorset. *Br J Gen Practice* 1998. 48:1590-3.
 31. Changing remuneration systems: effects on activity in general practice. *British Medical Journal* 1990; 300:1698-701.
 32. Cochrane SH, Zachariah KC. Infant and child mortality as a determinant of fertility. The policy implications. Staff working paper No 556. Washington D.C.: World Bank. 1983.
 33. Consultation length in general practice: cross sectional study in six European countries. Myriam Deveugele, Anselm Derese, Atie van den Brink-Muinen, Jozien Bensing, and Jan De Maeseneer. *BMJ* 2002; 325: 472.
 34. Conway T, Hu TC, Mason E, Mueller C. Are primary care residents adequately prepared to care for women of reproductive age? *Family Planning Perspectives* 1995; 27(2):66-70.
 35. Coulter A, Bradlow J. Effect of NHS reforms on general practitioners' referral patterns. *British Medical Journal* 1993; 306: 433-437.
 36. Coulter A, Seagroatt V, McPherson K. Relation between general practices' outpatient referral rates and rates of elective admission to hospital. *BMJ* 1990; 301: 273-276.
 37. Crombie DL, Fleming DM. General practitioner referrals to hospital: the financial implications of variability. *Health Trends* 1988; 20: 53-56.
-

-
38. Croxson B, Propper C, Perkins A. Do doctors respond to financial incentives? UK family British doctors and the GP fundholder scheme. *Journal of Public Economics* 2001; 79: 375-398.
 39. Dale J, Lang H, Roberts J, Green J, Glucksman E. Cost effectiveness of treating primary care patients in accident and emergency: a comparison between general practitioners, senior house officers and registrars. *Brit Med J* 1996; 312:1340-1344.
 40. Davis D, Thomson MA, Oxman AD, Haynes RB. Changing Physician Performance: A Systematic Review of the Effect of Continuing Medical Education Strategies. *JAMA* 1995. 274:700-705.
 41. de Marco P, Dain C, Lockwood T, Roland M. How valuable is feedback of information on hospital referral patterns? *BMJ* 1993; 307: 1465-1466.
 42. Declercq ER, DeVries R, Viisainen K, Salveson H, Wrede S. Where to Give Birth? Politics and the Place of Birth. In *Birth by Design: Pregnancy, Maternity Care and Midwifery in North America and Europe*. 2001. DeVries R, Beniot C, van Teijlingen E, Wrede S, eds. New York: Routledge Press.
 43. Decree of the Government of The Republic Of Moldova. Regarding the Statement of the Concept of Reforming the Health-Care System of the Republic Of Moldova in New Economic Conditions for Years 1997-2003. Nr.668 from July 17, 1997.
 44. Dixon J, Glennerster H. What do we know about fundholding in general practice? *British Medical Journal* 1995; 311: 727-730.
 45. Doctors and their workshops. A review article. *J Health Economics* 1985; 4:21-33.
 46. Doganov B., Araujo E. Ministry of Health of the Republic of Moldova. Project Coordination Implementation and Monitoring Unit. Health Investment Fund Project. Mid-Term Project Evaluation Report. December 2003.
 47. Donaldson C, Gerard K. The economics of health care financing. The visible hand. London. Macmillan, 1992.
 48. Dranove D and Satterthwaite M. 'The Industrial Organisation of Health Care Markets', in Culyer AJ and Newhouse JP (eds.) *Handbook of Health Economics*. Amsterdam. North-Holland, 2000.
 49. Dusheiko M, Gravelle H, Jacobs M, Kuhn M, Smith P. 'The effect of budgets on doctor behaviour: Evidence from a natural experiment'. University of York. DERS Discussion paper 03104. 2003.
 50. Eddy DM. What Care Is Essential? What Services Are Basic? *JAMA* 1991; 265: 786-788.
 51. Ettlinger PR, Freeman GK. General practice compliance study: is it worth being a personal doctor? *BMJ* 1981; 282: 1192-1194.
 52. European definition of General Practice/Family Medicine. The European Definition 2002. <http://euract.org/html/pap04102.shtml>
 53. Family doctors and change in practice strategy since 1986. *British Medical Journal* 1995; 310:705-8.
 54. Fertig A, Roland M, King H, Moore T. Understanding variation in referral among general practitioners: are inappropriate referrals important and would guidelines help to reduce rates? *BMJ* 1993; 307: 1467-1470.
 55. Fihn S, Wicher J. Withdrawing routine outpatient medical services: effects on access and health. *Journal of General Internal Medicine* 1988; 3: 356-62.
-

-
56. Filmer D, Hammer J, and Pritchett L. Health Policy in Poor Countries: Weak Links in the Chain. World Bank, 1997.
 57. Forrest CB, Glade GB, Starfield B, Baker A, Kang M, Reid RJ. Gatekeeping and referral of children and adolescents to specialty care. *Pediatrics* 1999; 104: 28-34
 58. Forrest CB, Nutting P, Starfield B, von Schrader S, Rohde C. Managed health plan effects on the specialty referral process: results from the ASPN referral study. *Med Care* 2003; 41: 242-253
 59. Forrest CB, Reid RJ. Prevalence of health problems and primary care physicians' specialty referral decisions. *J Fam Pract* 2001; 50: 427-432.
 60. Franks P, Clancy CM, Nutting PA. Gatekeeping revisited: Protecting patients from over treatment. *New England Journal of Medicine* 1992; 327: 424-429.
 61. Freeman GK, Richards SC. Personal continuity and the care of patients with epilepsy in general practice. *Br J Gen Pract* 1994; 44: 395-399.
 62. Frenk J. Dimensions of health system reform. *Health Policy* 1994; 27:19-34.
 63. Garg ML et al. Physician specialty, quality and cost of inpatient care. *Social Science and Medicine* 1979; 13: 187-90.
 64. General practitioners' attitudes to a recent change in their remuneration system. *Scand J Prim Health Care* 1991;9(2):83-7.
 65. Gish, O. Selective primary health care: old wine in new bottles. *Social Science and Medicine* 1982; 16: 1049-1053.
 66. Giuffrida A, Gravelle H, Roland M. Measuring quality of care with routine data: avoiding confusion between performance indicators and health outcomes *British Medical Journal* 1999; 319: 94 – 98.
 67. Gosden T, Torgenson DJ. The effect of fundholding on prescribing and referral costs: a review of the evidence. *Health Policy* 1997; 40: 103-114.
 68. Government of the Republic of Armenia. "Program for development and reform of the healthcare system in the Republic of Armenia". 1996.
 69. Government of the Republic of Armenia. Law 'On Medical aid and Medical services for the Population' March 1996.
 70. Gravelle H, Dusheiko M, Sutton M. The demand for elective surgery in a public system: time and money prices in the UK National Health Service. *Journal of Health Economics* 2002; 21: 423-449.
 71. Gravelle H. Capitation contracts: access and quality, *Journal of Health Economics* 1999; 18: 315-340.
 72. Gray DP. Planning Primary Care. A discussion document. Occasional Paper 57: The Royal College of General Practitioners; London, 1992.
 73. Grunfeld E, Fitzpatrick R, Mant D, et al. Comparison of breast cancer patient satisfaction with follow-up in primary care versus specialist care: results from a randomized controlled trial. *British Journal of General Practice* 1999; 49:705-10.
 74. Ham C, Robinson R, Benzeval M. Health Check. Health care reforms in an international context. London: King's Fund Institute, 1990.
-

-
75. Health Facility Surveys: An Introduction by Magnus Lindelow; Adam Wagstaff. Public Services, Development Research Group. Policy Research Working Paper 2953. The World Bank. January 2003.
 76. Health Financing and Primary Health Care Development Project Evaluation Report. "Development Programs" Ltd. Yerevan, 2003.
 77. Health Insurance Act <http://www.legaltext.ee/failid/findfile.asp?filename=X60043>
 78. HGRM regarding the structure and personnel of the villages and cities' mayoralties nr.688 dated 10.06.2003.
 79. Hindmarsh JH, Coster GD, Gilbert C. (1998) Are vocationally trained general practitioners better GPs? A review of research designs and outcomes. *Medical Education* 1998; 32(3):244-54.
 80. Hine C, Wood VA, Taylor S, Charny M. Do community hospitals reduce the use of district general hospital beds? *J R Soc Med* 1996; 89: 681-687.
 81. Hippisley-Cox J, Hardy C, Pringle M, Fielding K, Carlisle R, Chilvers C. The effect of deprivation on variations in general practitioners' referral rates: a cross-sectional study of computerized data on new medical and surgical outpatient referrals in Nottinghamshire. *BMJ* 1997; 324: 1458-1461.
 82. Hjortdahl P, Laerum E. Continuity of care in general practice: effect on patient satisfaction. *BMJ* 1992; 304: 1287-1290.
 83. Hochheiser LI, Woodward K, Charney E. Effect of the neighbourhood health centre on the use of paediatric emergency departments in Roschester, New York. *New England Journal of Medicine*. 1971; 285:148-52.
 84. Hovhanisyan S. Analysis of Primary Health Care Services, "Armenian Association of Family Medicine" May 2004.
 85. Howie JGRH, Heaney DJ, Maxwell M, Walker JJ, Freeman GK, Rai H. Quality at general practice consultations: cross sectional survey. *BMJ* 1999; 319: 738-743.
 86. Hsiao, W. What Should Macroeconomists Know about Health Care Policy? IMF Working Paper. 2003. Washington, D.C., IMF.
 87. Hughes J, Gordon P. Hospitals and primary care – breaking the boundaries. London: King's Fund Centre, 1993.
 88. Hunt D, Haynes RB, Hanna S, Smith K. Effects of computer-based clinical decision support systems on physician performance and patient outcomes. *JAMA* 1998; 280: 1339-1346.
 89. Jamison DT, Mosley HW, Measham AR, Bobadilla J-L. (eds,) 1993. Disease control priorities in Developing Countries. Oxford Medical Publication.
 90. Janovsky K, Cassels A. "Health policy and systems research: issues, methods, priorities." In Janovsky, K. (ed.), Health policy and systems development: an agenda for research. WHO/SHS/NHP/96.1. Geneva: World Health Organization. 1996.
 91. Katon W, Robinson P, Von Korff M, et al. A multifaceted intervention to improve treatment of depression in primary care. *Archives of General Psychiatry* 1996; 53:924-32.
 92. Kinmonth AL, Woodcock A, Griffin S, Spiegel N, Campbell ML. Randomised controlled trial of patient centred care of diabetes in general practice: impact on current well-being and future disease risk. *BMJ* 1998; 317: 1202-1208.
-

-
93. Kinmonth AL, Woodcock A, Griffin S, Spiegel N, Campbell ML. Randomised controlled trial of patient centred care of diabetes in general practice: impact on current wellbeing and future disease risk. *BMJ* 1998; 317: 1202-1208.
 94. Klein R. The new politics of the NHS. London. Longman, 1995.
 95. Kutzin J, McPake B, "Methods for Evaluating Effects Of Health Reforms." Current Concerns, Ara Paper number 13, World Health Organization, WHO/ARA/CC/97.3
 96. Kutzin J. "Health financing reform: a framework for evaluation." Revised working document. WHO/SHS/NHP/96.2. Health Systems Development Programme. World Health Organization, Geneva, 1995.
 97. Kutzin J. A descriptive framework for country-level analysis of health care financing arrangements. *Health Policy* 2001; 56:171-204.
 98. Law regarding the local public administration nr.123-XV from 18.03.2003.
 99. Lee JW. "Global health improvement and WHO: shaping the future", *Lancet* 2003; 362: 2083–88.
 100. Lord Dawson of Penn. Interim Report on the Future Provisions of Medical and Allied Services. United Kingdom Ministry of Health. Consultative Council on Medical Allied Services. London: HMSO. 1920.
 101. Macinko J, Starfield B, Shi L. The contribution of primary care systems to health outcomes within Organization for Economic Cooperation and Development (OECD) countries, 1970-1998. *Health Services Research* 2003; 38(3):831-65.
 102. Mackenbach JP, van den Bos J, Joung IM, van de Mheen H, Stronks K. The determinants of excellent health: different from the determinants of ill-health? *Int J Epidemiol.* 1994 Dec; 23 (6):1273-81.
 103. Majeed A, Cook D, Evans N. Variations in general practice prescribing costs – implications for setting and monitoring prescribing budgets. *Health Trends* 1996; 28: 52-55.
 104. Majeed FA, Cook DG, Anderson HR, Hilton S, Bunn S, Stones C. Using patient and general practice characteristics to explain variations in cervical smear uptake rates. *BMJ* 1994; 308: 1272-1276.
 105. Majeed FA, Cook DG, Given-Wilson R, Vecchi P, Poloniecki J. Do general practitioners influence the uptake of breast cancer screening? *J Med Screening* 1995; 2: 119-124.
 106. Management Sciences for Health in collaboration with WHO. Managing Drug Supply. West Hartford, Connecticut: Kumarian Press Inc, 1997.
 107. Manning WG et al. A controlled trial of the effect of a prepaid group practice on use of services. *New England Journal of Medicine* 1984;310:1505-10.
 108. Mark DH, Gottlieb MS, Zellnwer BB, Chetty VK, Midtling JE. Medicare costs in urban areas and the supply of primary care physicians. *Journal of Family Practice* 1996; 43: 33-39.
 109. Marshall M, Roland M, Campbell S, Kirk S, Reeves D, Brook R, McGlynn E, Shekelle P. "Measuring General Practice: a demonstration project to develop and test a set of primary care clinical quality indicators." The Nuffield Trust. 2003. London.
 110. Marshall M, Roland M, Campbell S, Reeves D, and Kirk S, (2003) Measuring General Practice: A Demonstration Project to Develop and Test a Set of Primary Care Clinical Quality Indicators. The Nuffield Trust. London.
-

-
111. Martin D et al. Effect of gatekeeper plan on health services use and charges: a randomised controlled trial. *American Journal of Public Health* 1989; 79 (12): 1628-32.
 112. Maximum Number of Practice Lists of Family Physicians. Regulation No. 114 of the Minister of Social Affairs of 29 November 2001. Entered into force 1 January 2002
 113. McGuire TP. 'Physician Agency', in Culyer AJ and Newhouse JP (eds.) *Handbook of Health Economics*. Amsterdam. North-Holland, 2000.
 114. McPake B, Mills A. What can we learn from International Comparisons of Health Systems and Health System Reform? *Bulletin of the World Health Organization* 2000; 78 (6) 811-20.
 115. Mills A, Drummond M. Value for money in the health sector: the contribution of primary health care. *Health Policy and Planning* 1987; 2 (2):107-128. 1987
 116. Ministry of Health of the Republic of Armenia. Decree No.375. June 1999.
 117. Mitchell E, Sullivan F. A descriptive feast but an evaluative famine: systematic review of published articles on primary care computing during 1980-97. *BMJ* 2001; 322: 279-282.
 118. Moens F. "Design, implementation and evaluation of a community financing scheme for hospital care in developing countries: a pre-paid health plan in the Bwamanda health zone, Zaire." *Social Science and Medicine*, 1990; 30 (12):1319-27.
 119. Moldova Health Investment Fund: Training Strategy Development in General Practice. March 2002.
 120. Monitoring the Mandatory Health Insurance in Quarter I, 2004. World Health Organisation Liaison Office. Moldova.
 121. Moore GT. The case of the disappearing generalist: does it need to be solved? *Milbank Quarterly* 1992; 70: 361-379.
 122. Moore S. Cost containment through risk-sharing by primary care physicians. *New England Journal of Medicine* 1979; 300:1359-62.
 123. Mossialos E. Citizens views on health care systems in the 15 member states of the European Union. *Health Economics* 1997; 6: 109-116.
 124. Murphy AW, Bury G, Plunkett PK, Gibney D, Smith M, Mullan E, Johnson Z. Randomised controlled trial of general practitioner versus usual medical care in an urban accident and emergency department: process, outcome and comparative cost. *Brit Med J* 1996; 312: 1135-1142.
 125. Murray CJL, Lopez AD (eds.). *The global burden of disease and injury series, volume 1: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020*. Cambridge, MA: Published by the Harvard School of Public Health on behalf of the World Health Organization and the World Bank, Harvard University Press, 1996.
 126. National Health Accounts 2002. Ministry of Social Affairs, Tallinn, Estonia 2003
 127. Nazareth I, King M. Decision making by general practitioners in diagnosis and management of lower urinary tract symptoms in women. *BMJ* 1993; 306: 1103-1106.
 128. NHS Executive. *Developing NHS purchasing and GP Fund holding: towards a primary care-led NHS*. EL (94) 79. Leeds: National Health Service Executive, 1994.
 129. Noone A, Goldacre M, Coulter A, Seagroatt V. Do referral rates vary widely between practices and does supply of services affect demand? A study in Milton Keynes and the Oxford region. *J R Coll Gen Pract* 1989; 39: 404-407.
-

-
130. Of the Decree of RoA Government N. Republic of Armenia Strategy on the primary health care of the population 2003-2008. Yerevan 2003.
 131. Orton P. Shared care. *Lancet* 1994; 344: 1413-1415.
 132. Parker A W, Walsh J, and Coon M. A normative approach to the definition of primary health care. *Mil. Mem. Fund Q.*: 54; 415-438; 1976.
 133. Parker A W, Walsh J, and Coon M. A normative approach to the definition of primary health care. *Mil. Mem. Fund Q.*: 54; 415-438; 1976.
 134. Pereira Gray DJ. Feeling at home. James Mackenzie Lecture. *Journal of the Royal College of General Practitioners*. 29; 666-78; 1978.
 135. Preparation of the Family Medicine Development Component of the Second World Bank Supported Health Project in Armenia. Schaapveld K. January 2004.
 136. Procedure for the Assumption of Payment Obligation of an Insured Person by the Health Insurance Fund and Methods for Calculation of the Payments to Be Made to Health Care Providers. Regulation No. 121 of the Minister of Social Affairs of 3 October 2002. Entered into force 21 October 2002.
 137. Procedure for the Public Competition for Granting the Right to Compile a Practice List of a Family Physician. Regulation No. 112 of the Minister of Social Affairs of 29 November 2001. Entered into force 1 January 2002
 138. Prystowsky JB, Bordage G. An outcomes research perspective on medical education: the predominance of trainee assessment and satisfaction. *Medical Education* 2001; 35(4):331-6.
 139. Ram P, Grol R, Van den Hombergh P, Rethans J-J, Van der Vleuten C, Aretz K. Structure and process: the relationship between practice management and actual clinical performance in general practice. *Fam Pract* 1998; 15: 354-362.
 140. Republic of Armenia, Ministry of Health. Health Research for Action, Belgium. Final Draft Report. February 2004.
 141. Republic Of Moldova Ministry Of Health. Health Investment Fund Project. Project Coordination Implementation and Monitoring Unit. Progress Report. December 31st, 2003. Chisinau, Moldova
 142. Requirements for the Rooms, Fittings and Equipment of the Practice Premises of a Family Physician. Regulation No. 116 of the Minister of Social Affairs of 29 November 2001. Entered into force 1 January 2002.
 143. Resolution of the Government, nr. 1591 from December 29, 2003. Modifications and completions that are operated on some resolutions of the Government. The statute of the National Health Insurance Company, approved by the Resolution of the Government, nr. 156, from February 11, 2002 (Official Gazette of the Republic of Moldova, 2002, nr. 27-28, art. 232)
 144. Rifkin SB, Walt G. Why health improves: defining the issues concerning 'comprehensive primary health care' and 'selective primary health care'. *Social Science and Medicine* 1986; 23: 559-566.
 145. Rivo ML, Satcher D. Improving access to health care through physician workforce reform. *JAMA* 1993; 270: 1074-1078.
 146. Roberts E, Mays N. Can primary care and community-based models of emergency care substitute for the hospital accident and emergency department? *Health Policy* 1998; 44: 191-214.
 147. Rochaix L. 'Performance tied payment systems for physicians'. In Saltman RB, Figueras J, Skellarides C (eds.) *Critical Challenges for Health Care Reform in Europe*, Buckingham and Philadelphia. Open University Press, 1998.
-

-
148. Rosenblatt RA, Hart LG, Baldwin L, Chan L, Schneeweiss R. The generalist role of specialty physicians: Is there a hidden system of primary care? *JAMA* 1998; 279: 1364-1370.
 149. Sanci LA, Coffey CMM, Veit FCM, Carr-Gregg M, Patton GC, Day N, Bowes G. Evaluation of the effectiveness of an educational intervention for general practitioners in adolescent health care: randomised controlled trial. *BMJ* 2000; 320:224-30.
 150. Schoen C, Osborn R, Huynh PT, Doty M, Davis K, Zapert K, and Peugh J. Primary Care and Health System Performance: Adults' Experiences in Five Countries. *Health Affairs*, 10.1377/hlthaff.w4.487
 151. Schroeder SA, Sandy LG. Specialty distribution of US physicians-the invisible driver of health care costs. *New England Journal of Medicine* 1993; 328: 961-963.
 152. Scott A. Eliciting GPs' preferences for pecuniary and non-pecuniary job characteristics, *Journal of Health Economics* 2001; 20: 329-34.
 153. Segal M. Primary Health Care is viable. *International Journal of Health Planning and Management* 1987; 2: 281-291.
 154. Sen K, Koivusalo M. Health Care Reforms in Developing Countries. *International Journal of Health Planning and Management* 1998; 13: 199-215.
 155. Shea S, Misra D, Ehrlich M, Field L, Francis C. Predisposing factors for severe uncontrolled hypertension. *New England Journal of Medicine* 1992; 327: 776-781.
 156. Shear CL et al. Provider continuity and quality of medical care: a retrospective analysis of prenatal and perinatal outcomes. *Medical Care* 1983; 21: 1204-10.
 157. Sim MG, Kamien M, Diamond MR. From novice to proficient general practitioner: a critical incident study. *Aust Fam Physician* 1996;25:S59-64.
 158. Singh B, Holland MR, Thorn PA., Metabolic control of diabetes in general practice clinics: comparison with a hospital clinic. *British Medical Journal* 1984; 289: 726-8.
 159. Siu AL et al. Use of the hospital in a randomised controlled trial of prepaid care. *JAMA* 1988; 259: 1343-6.
 160. Smith F, Singleton A, Hilton S. General practitioners' continuing education: a review of policies, strategies and effectiveness, and their implications for the future. *Br J Gen Pract* 1998; 48:1689-95.
 161. Soucat A, Levy-Brushl D, De Bethune X, Gbedonou P, Lamarque JP, Bangoura O, Camara O, Gandaho T, Ortiz C, Kaddar M, Knippenberg R. Affordability, cost-effectiveness and efficiency of primary health care: the Bamako Initiative experience in Benin and Guinea. *The International Journal of Health Planning and Management* 1997; 12: S81-S108.
 162. Starfield B, Shi L, Atul Grover A, Macinko J. The Effects of Specialist Supply on Populations' Health: Assessing the Evidence. *Health Affairs*, 2004. 10.1377/hlthaff.w5.97.
 163. Starfield B. Primary Care. Concept, Evaluation and Policy. New York. Oxford University Press. 1992
 164. Starfield B. Primary Care. Concept, Evaluation and Policy. New York. Oxford University Press, 1993.
 165. Starfield B. Primary Care. Concept, Evaluation and Policy. New York. Oxford University Press, 1993.
 166. Starfield B. Primary Care. Concept, Evaluation and Policy. Oxford University Press. New York, 1992.
-

-
167. Starfield B. Primary Care. *Journal of Ambulatory Care Management* 1993; 16: 27-37.
 168. Starfield B. Primary Care. *Journal of Ambulatory Care Management* 1993; 16: 27-37.
 169. Stoddard J, Sekscenski E, Weiner J. The physician workforce: broadening the search for solutions. *Health Affairs* 1998; 17: 252-257.
 170. Strauss A, Corbin J. *Basics of Qualitative Research Techniques and Procedures for Developing Grounded Theory* (2nd edition). London: Sage Publications, 1998.
 171. Sullivan F, Mitchell E. Has general practitioner computing made a difference to patient care? A systematic review of published reports. *BMJ* 1995; 311: 848-852.
 172. Surender R, Bradlow J, Coulter A, Doll H, Brown SS. Prospective study of trends in referral patterns in fundholding and non-fundholding practices in the Oxford region, 1990-4. *BMJ* 1995; 311: 1205-1208.
 173. The demand for elective surgery in a public system: time and money prices in the UK National Health Service. *J Health Econ* 2002 ;21(3):423-49.
 174. The effect of capitation on GPs' referral decisions. *Health Economics* 2000; 9:199-210.
 175. The Law of Republic of Moldova. *The Law of Public Administration*, 1999.
 176. Thomas M. Continuing medical education as a strategy for improving general practice-experiences from Vellore. *Fam. Pract.* 1991 8: 243-246.
 177. Treasure RA, Davies JA. Contribution of a general practitioner hospital: a further study. *Br Med J* 1990; 300: 644-646.
 178. Unger JP, Killingsworth JR. Selective primary health care: a critical review of methods and results. *Social Science and Medicine* 1986; 22: 1001-1013.
 179. Van weel C. Teamwork. *Primary Care tomorrow*. *Lancet* 1994; 344:1276-1279.
 180. Vuori H. Health for all, primary health care and the general practitioners. Keynote address: WONCA. 1986.
 181. Vuori H. Primary health care in Europe-problems and solutions. *Community Medicine* 1984; 6: 221-31.
 182. Walsh JA, Warren KS. Selective Primary Health Care. An Interim Strategy for Disease Control in Developing Countries. *New England Journal of Medicine* 1979; 301: 967-974.
 183. Walsh JA, Warren, KS. Selective Primary Health Care. An Interim Strategy for Disease Control in Developing Countries. *New England Journal of Medicine* 1979; 301: 967-974.
 184. Ward P, Huddy J, Hargreaves S. Primary care in London: an evaluation of general practitioners working in an inner city accident and emergency department. *Journal of Accident and Emergency Medicine* 1996; 13: 11-15.
 185. Weiner J, Starfield B. Measurement and the primary care roles of office based physicians. *American Journal of Public Health* 1983; 73: 666-71.
 186. Welch WP, Miller M, Welch HG, Wennberg J. Geographic variation in expenditures for physicians' services in the United States. *New England Journal of Medicine* 1993; 328; 621-627.
 187. Wensing M, Mainz J, Ferreira P, Hernshaw H, Hjortdahl, Olesen F, Reis S, Ribacke M, Szécsényi J, Grol R. General practice care and patients' priorities in Europe: an international comparison. *Health Policy* 1998; 45: 175-186.
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188. WHO/DFID Manas Health Policy Analysis Project. Policy brief #5. (2004) Policy issues in providing outpatient specialist care.
 189. Whynes DK, Baines DL, Tolley KH. Explaining variations in general practice prescribing costs per ASTRO-PU (age, sex, and temporary resident originated prescribing unit). *BMJ* 1996; 312: 488-489.
 190. Wilkin D, Smith A. Explaining variation in general practitioner referrals to hospital. *Fam Pract* 1987; 4: 160-169.
 191. Wilkinson R, and Marmot M (eds). *Social determinants of health. The solid facts.* World Health Organization, 2003.
 192. Williams A. Science or marketing at WHO? A commentary on 'World Health 2000'. *Health Econ* 2001; 10 (2): 93-100.
 193. Williams S, Weinman J, Dale J, Newman S. Patient expectations: What do primary care patients want from the GP and how far does meeting expectations affect patient satisfaction? *Fam Pract* 1995; 12: 193-201.
 194. WONCA. *World Family Doctors Caring For People. The European Definition of General Practice/Family Medicine* (2002)(<http://www.euract.org/pap041.html>, version current May 2004).
 195. Work Instructions of Family Physician. Regulation No. 117 of the Minister of Social Affairs of 29 November 2001. Entered into force 1 January 2002.
 196. World Bank, World Bank Project Appraisal Document. 2000, Ministry of Health. Chisinau, Moldova.
 197. World Bank. *World Development Report 1993. Investing in Health.* New York, Oxford University Press for the World Bank, 1993.
 198. World Health Organization Regional Office for Europe. 2004.
 199. World Health Organization Regional Office for Europe. *Health for All Database.* 2004.
 200. World Health Organization. *The World Health Report 2000. Health Systems: Improving Performance.* Geneva. World Health Organization, 2000
 201. World Health Organization. *World Health Report 2000: Health Systems: Improving Performance.* Geneva, Switzerland. World Health Organization. 2000.
 202. World Health Organization. *From Alma-Ata to the year 2000. Reflections at midpoint.* Geneva. World Health Organization, 1988.
 203. World Health Organization. *From Alma-Ata to the year 2000. Reflections at midpoint.* Geneva. World Health Organization, 1988.
 204. World Health Organization. *Primary health care. Report of the International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978. "Health for All" Series, No 1.* Geneva. World Health Organization, 1978.
 205. World Health Organization. *Targets for health for all.* Copenhagen: World Health Organization Regional Office for Europe, 1985.
 206. World Health Organization. *World Health Report 2003. Shaping the future.* (2003), World Health Organization. Geneva.
 207. Zweifel P, Breyer F. *Health Economics.* New York and Oxford. Oxford University Press, 1997.
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