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TWO MODELS OF PRIMARY HEALTH CARE DEVELOPMENT: RUSSIA VS. CENTRAL AND EASTERN EUROPEAN COUNTRIES

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TWO MODELS OF PRIMARY HEALTH CARE DEVELOPMENT: RUSSIA VS. CENTRAL AND EASTERN EUROPEAN COUNTRIES³

The paper explores primary health care models in Russia and in Central and Eastern European (CEE) countries. Starting with the similar model, they have taken totally different ways of primary health care transformation, including the role of general practitioner, multi-specialty polyclinics and private sector. The comparison of this diversity, based on the conceptual framework of Primary Health Care Activity Monitor in Europe, demonstrated that the scores of primary care in Russia are relatively lower, particularly in the dimensions of accessibility, comprehensiveness, continuity and coordination of care. The score of the selected efficiency indicators is also relatively low. The major reasons for this are discussed, including the lack of strategic vision on the role of primary care, an excessive specialization of primary care and the delay with a shift to a general practitioner model. A debatable issue of primary care extended composition (the involvement of a growing number of specialists) is also addressed. The conceptual presumption that an extended composition presents new opportunities for more integrated care and better performance has not been supported by the evidence. Big multi-specialty polyclinics in Russia don't demonstrate advantages over solo and group GP practices that dominate in CEE countries. The potential of polyclinics is not used because of the lack of specific activities for integration. It is argued that new specialists in the practices can strengthen primary care only when they support generalists rather than replace them. The lesson learnt from CEE countries is that substantial changes are needed to overcome the lagging status of primary care in Russia, including overcoming the excessive specialization of primary care, the replacement of district physicians by general practitioners, developing the forms of independent practices operating in parallel with polyclinics and competing with them.

Key words: Health policy Primary health care General practitioner Polyclinics Coordination of Care

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1. Introduction

European health care systems face a number of challenges, of which the most important is aging of the population and related changes on the demand side of care – higher incidence of chronic and multiple diseases. People of the working age are better educated and more demanding as patients. Changes on the supply side – new medical technologies, specialization and a growing infrastructure of health care – present new requirements to continuity and integration of care. Strong primary health care systems are commonly seen as an important response to these challenges (WHO, 2008; Kringos et al, 2013; Gauld, 2015).

The starting point of primary health care (PHC) reforms in post communist countries was the Semashko model with the following major characteristics: the dominance of state owned medical centers (polyclinics), a relatively easy access to hospitals, a limited patient choice of providers, a separation of care for adults and children, a broad composition of primary care with a relatively low role of generalists, there limited curative and coordination functions, fragmentation of care because of the vertical programs (Sheiman, 1995; Kuhlbrandt and Boerma, 2015). The scope and trends of PHC reforms differ substantially across two groups of countries - Central and Eastern European countries, including Baltic countries (CEE countries), and Former Soviet Union countries (FSU countries). The Semashko model has been completely or partially redeveloped in the first group of countries, following the models that existed in Western Europe, while it hasn't changed much in the second group of countries (Kuhlbrandt, 2015; Kuhlbrandt and Boerma, 2015). The diversity between two groups of countries (as well as within these groups) can be accounted to many factors, of which the most important is a general attitude towards the inherited institutes of primary care that determines the willingness to change or to adapt them in the course of transition (Boerma and Kringos, 2015).

A substantial body of literature addresses the reforms in CEE countries. The Primary Health Care Activity Monitor in Europe (the PC Monitor) is the most fundamental research of the PHC systems strength in European countries, including 9 CEE countries (Kringos et al, 2015). It concludes that a traditional division between “East and West” is disappearing. The integrated scores of primary care strength in Romania, Czech Republic and Poland are higher than in neighboring Austria, while Estonia, Lithuania and Slovenia are among the countries with the strongest PHC systems (Kringos et al, 2015, p. 128). A number of papers address the specific characteristics of PHC transformation across these countries in comparison with Western European countries, including the study of expanding general practitioners' (GP) task profiles – their capacity to provide more curative and preventive services (Grienlen et al, 2000; Atun, 2006; Groenewegen et al., 2013), the problems of developing family medicine (Seifert et al, 2008), a growing variety of primary care practices composition, that is a number of professionals

working in them (Groenewegen et al, 2015). Based on the comparative analysis, some authors explore the inconsistency of reforms in this group of countries, including the co-existence of the old and new forms of primary care institutional organization (e.g. state owned polyclinics and free-standing GP offices) in a number of CEE countries (Liseckine et al, 2007; Seifert et al, 2008; Groenewegen et al, 2013).

A study of primary care systems in FSU countries is much more limited and is not designed to compare two groups of post communist countries. This paper is an attempt to fill this gap. We start with the comparative analysis of Russia, as the country which represents a “conservative” strategy of primary care reforming, and CEE countries that have taken a more radical approach. Some developments in the Russian health system have diverted the mainstream of reforms in European countries and therefore have prompted a number of questions. What are the specific distinctions in the transformation of primary health care in Russia and CEE countries? What is the relative strength of primary care models? Does Russia prove the effectiveness of an extended composition of primary care in the prevailing organizational form of polyclinics? These questions are addressed through a systematic comparison of primary care in Russia and the prevailing model in CEE countries - according to the methodology suggested by the PC Monitor.

This analysis is relevant for most FSU countries, which have chosen keeping the Semashko model practically unchanged, as well as some CEE countries that are looking for the ways to improve their systems through re-vitalizing the elements of the inherited system (Ettelt et al, 2009). The most debatable issue is a degree of the extended composition of primary care. It is relevant for many countries, including some Western countries – see, for example, a discussion of proposals to replace general practices by big primary care settings in England (Imison et al, 2008) . We start with conceptual issues of the primary care strength, then address the diversity in PHC reforms in Russia and CEE countries with the following comparative analysis of major dimensions of primary care in two groups of countries. The focus of discussion is the extreme form of extended composition of primary care in Russia.

2. Strength of primary care: some conceptual issues

Primary care is the first point of contact with health care where people present their health problems and the majority of the population’s curative and preventive health needs are satisfied (Starfield, 1992). This is a generalist care focused on the person as a whole, instead of only one specific organ or health problem. Primary care consists of prevention, health education, nursing support and provision of curative care for the most common diseases (Kringos et al, 2015, p. 31).

There is a general consensus on what the strong PHC systems are. However, some characteristics are still debated. It is commonly agreed that the *availability of patient list*, that is a defined population served by primary care providers, is one of the major characteristics of strong PHC systems (Boerma, 2006; Kringos et al, 2015; Groenenwegen et al, 2013). This is an indication of a constant surveillance of patients' health needs and care utilization at all levels of service delivery, as well as the specification of primary care responsibility area. Patients can be referred to medical specialists or hospitals, but GP will guide them through the referral process and the health care system (Boerma and Kringos et al, 2015, p. 31).

Related to the patient list is a *gatekeeping function of general practitioners*. This is not only ensuring a first contact with patients but mainly the coordination of service delivery at all levels, including: i) determining patients "routes" in health care system through referrals to specialists and hospitals which are actually needed for the specific case; ii) integration with specialty care (consultations with specialists, getting feedback from them, building team work in managing chronic diseases, etc.); iii) ensuring continuity of care, that is "the degree to which a series of discreet health care events is experienced as coherent, connected and consistent with patients' medical needs" (Haggerty et al, 2003). It is commonly believed that a position of GPs as gatekeepers strengthens primary care (Boerma, 2008; Liseckiene et al, 2007; Groenewegen et al, 2013; Boerma and Kringos, 2015; Kuhlbrandt, 2015).

Another important characteristic of strong systems is a *comprehensiveness of care*, that is the capacity of PHC to provide a wide range of services that allows to start and to finish care for most of patients without referral to other sectors of the health system. A low range of services at this level generates demand for specialists and makes primary care dependent on their availability: some patients with simple conditions may not obtain necessary services without access to specialty care. Comprehensiveness of care is a broad concept covering all areas of primary care, including *preventive services and health education*. The scope of these activities determines the level of demand for specialty care.

An important dimension of strong PHC system is a *health workforce policy designed to ensure a sustainable supply of GPs*. The lower pay and sometimes lower status of GPs relative to specialists may hinder their recruitment and retention, which is the real issue throughout the world. The shortages of GPs are experienced in many Western countries (European Commission, 2012; Pearson, 2013; Verma et al, 2016), FSU and CEE countries (Gerry and Sheiman, 2016; Seifert et al, 2008). This implies a strong regulation of the number and structure of postgraduate education with the focus on training GPs (Paris et al, 2010; Lafortune and Moreira, 2015); a set of activities to promote more equal geographic distribution (Ono et al, 2014); setting high requirements and strong incentives for professional development of GPs (Seifert et al, 2008).

A debatable issue is the *composition of primary care*. A growing share of chronic and multiple diseases requires new professional groups' involvement in PHC. There is a consensus on the growing role of new categories of nurses, GP assistants, social workers in provision of primary care: they make care more comprehensive and community oriented. But there is less consensus on the involvement of specialists. Boerma (2008, p.8) introduces the concept of "extended primary care" that goes beyond general practice alone, and makes a point that its border varies depending on the level of general practice development. In countries with less developed general practice "directly accessible primary care is also provided by specialists, such as paediatricians, gynecologists, specialists in internal medicine and cardiologists". This approach is opposed by many scholars. For example, Tomasik (2014) advocates traditional borders of primary care by making a point that first-contact specialists provide episodic care and don't have special training in PHC activities.

We may add to this last point that specialists don't act as gatekeepers and coordinators of care, don't provide comprehensive care focused on a patient as a whole. Most of care for multiple cases is provided by GPs: a survey of 4,500 patients in the USA demonstrates that 90% of patients with diabetes and four additional diagnosis usually see primary care physicians (Moore et al, 2016). And what is most important, specialists are not responsible for the dynamic surveillance of patients' health status and their health care utilization – this is a sole responsibility of general practitioners. Even when specialists are first-contact physicians, all other characteristics of PHC are absent or limited. They may work in a team with GPs but their role is to provide specialty care.

Does the extended composition of primary care always strengthen it? There are arguments to and contra. Groenewegen et al (2015) explore the correlation between composition of practices and some dimensions of PHC strength across 34 countries. The authors conclude that there is a positive correlation with comprehensiveness measures: the range of preventive and curative services is broader with more professional groups working in primary care practices or centers. There is also a positive link with the number of socially disadvantaged people whose needs are particularly high in the area of nursing, social work and therefore require additional professional input.

However, there is a substantial risk of diminishing the role of GP as a core provider and coordinator of primary care in big health centers like polyclinics in Russia. The actual impact of extended composition is highly dependent on the specific features of primary care organization: i) a degree of delegating traditional curative functions of GPs to specialists, ii) the structure of service delivery in health centers where generalists and specialists work jointly. iii) the level of management in such settings. If additional professional groups supplement GPs' curative and

preventive services and don't question their coordination role, the systems may become stronger. Inversely, if they replace GPs functions and make the scope of their work narrower, then the strength of PHC systems may be even lower. In health centers where specialists prevail in numbers and volume of activities there is a risk of diminishing the role of GP, because the latter is losing the sole responsibility for patient's health, while building a joint responsibility requires special integrative activities of managers to ensure coordination and continuity of care. When administration prevails over management, generalists may lose their operational autonomy and the coordination role. The actual impact of extended composition is discussed after the presentation of the evidence on multispecialty polyclinics performance in Russia and their comparisons with smaller providers in most of CEE countries. At this point, we suggest that the extended composition of primary care may or may not be the indicator of primary care strength.

3. Method and data

The PC Monitor is used as a benchmark for the comparison of PHC in Russia and CEE countries. This study covers 31 European countries, including Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Romania, Slovakia, Slovenia, and uses 10 dimensions of primary care and 99 indicators related to the structure, process and outcome of primary care. The *structure* group includes governance, economic conditions, workforce development. The dimensions at *process* level include access to services, continuity, coordination and comprehensiveness of care. The dimensions related to *outcomes* include quality and efficiency of care. The scores are estimated for primary care systems strength for each dimension and then aggregated in the overall score for individual countries (Kringos et al, 2015).

This conceptual framework is used to evaluate PHC in Russia and compare it with CEE countries covered by the PC Monitor. Bearing in mind the diversity of primary care organization in this group of countries, we focus on their common features without addressing the details across individual countries. The same indicators are used for the evaluation of primary care in Russia, but their number is relatively lower – due to the lack of data on Russia. Overall, around 40 indicators are used, while only part of them is presented in this paper as the most important ones for the evaluation.

The attempt has been made to incorporate Russia to the scores of CEE countries in the PC Monitor. However, the method of scores aggregation across various indicators and dimensions remains unclear (the volume does not provide weights for each score). Therefore we use three general scores to compare Russia with the average for CEE countries: “lower”, “the same” and “higher” for each dimension and in some cases – for the specific indicators. Contrary

to the PC Monitor, the overall aggregate country scores (for all dimensions) are not estimated. The final evaluation is based on the qualitative analysis of the scores for each dimension.

The analysis for each dimension is based on the uniform format of data presentation. First, the situation in Russia is briefly described. Second, the developments in CEE countries are presented with the reference to the PC Monitor. Third, the comparative evaluation is made.

A descriptive analysis of primary care in Russia is based on the literature and national statistical sources. WHO and OECD data bases are used for the comparative analysis of economic conditions and workforce developments. Comprehensiveness, coordination and continuity of care are evaluated with the use of two surveys of physicians. The first is the survey of 171 primary care physicians from 14 regions of Russia responding to 16 questions borrowed from the PC Monitor (annex to the volume). A list of questions was distributed through social network “Vkontakte” in May 2016 among district physicians and then supplemented with the face-to-face questioning physicians in Moscow outpatient care facilities. The sample of respondents was developed with the specific criteria of selection. The response rate is around 80%. The full list of questions and responses is available at the request (HSE, 2016). The second survey of physicians was conducted in August 2012. It covers 1500 physicians from three Russian regions representing major types of health systems in Central Russia, North regions and Siberia (for the description of data and results see Sheiman, Shevski, 2014). Although the list of questions was designed to evaluate the integration of care, some questions also relate to the characteristics of PHC.

The major limitation of our study is that our capacity for making detailed comparisons across all indicators is much more limited than in the PC Monitor study – a project with dozens of organizations involved. However, we carefully followed the methodological approaches of this study, particularly the guidelines in the appendix, and tried our best to make estimates comparable.

4. Empirical evidence of primary health care models in CEE countries and Russia

4.1. The diversity in transformation trends

The first and the major distinction is a *changing role of general practitioners*. At the start of transition in the early 1990s, a shift to a GP model has been declared in all post communist countries, including Russia (Ensor and Thompson, 1998). But the actual implementation of this strategy differs a lot. All CEE countries have managed to train an adequate number of GPs so that to replace the major part of the inherited generalists (district internists and district pediatricians) and thereby to expand the scope of services. Our estimate is that this process has taken 7-12 years in individual countries of this group. However, some countries have not

completed this process yet. For example, in Lithuania GPs amount to 68% of PHC physicians, while district internists -17 % and district pediatricians -15% (Groenenwegen et al, 2013).

In Russia this trend has been much less consistent. A growing interest in the GP model in the 90-s has given way to the reservations about this model. Although it has not been officially discarded and still seen as appropriate for rural areas and small urban neighborhoods, a universal shift to GP has not happened. District internists and pediatricians still account to 87% of physicians with patients on the list (further referred as district physicians, including GPs), while GPs – only 13% (Rosstat, 2015). It means that the bulk of the first contact services are still provided by physicians with a limited scope of services. The separation of care for adults and children has also remained. The family principle of primary care has been rejected under the pressure of pediatricians who consider pediatric care as the best heritage of the Semashko model. The number of GPs in 2013 was only 0.7 per 10,000 residents compared to an average of 8.7 in the pre-2004 EU and 5,7 in the post-2004 EU (WHO,2016; Rosstat, 2015).

The second distinction in the vector of changes is *the role of private sector and the employment status of PHC providers*. In most CEE countries, many former outpatient settings have been privatized and, what is most important, general practitioners have changed their employment status – from an employee of big facilities to self employed workers operating in solo and group practices under contracts with social insurance funds. The status of self employed dominates in Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Slovakia, while in Poland, Slovenia, Lithuania, most GPs are salaried (Kringos et al, 2015, p. 50). But even in the latter group of countries some GPs have self employed status and work independently of big outpatient settings. For example, in Lithuania the new status of independent contractor was introduced in 1999 and by 2009 50% of primary care providers became private (Groenenwegen et al, 2013).

In Russia, privatization of public facilities has not happened. District internists and pediatricians as well as newly trained GPs are salaried workers of outpatient facilities. Private providers usually don't have contracts with social health insurance funds and deliver mostly specialty outpatient care for out-of-pocket payment. Their staff is also salaried. The status of self employed physician is very rare and practically does not exist for GPs.

Related to this, is the distinction between countries in the *role of polyclinics as providers of PHC*. The inherited multispecialty polyclinics in urban areas have not been dismantled in most of CEE countries, but their role has diminished and the functions have changed. With all the diversity of organizational models of service delivery across countries, polyclinics are no longer major providers of PHC. In some countries (Estonia, Czech Republic, Bulgaria, Hungary) most of urban polyclinics have been restructured into free-standing practices and those that have remained provide primarily specialty care and diagnostic services (Koppel et al, 2008; Gaal et al,

2011; Dimova et al, 2012; Alexa et al, 2015). In other countries (Lithuania, Latvia) polyclinics have GPs in their staff together with specialists (Mitenbergs et al, 2012; Murauskiene et al, 2015), but even here polyclinics supplement rather than substitute independent practices that provide the bulk of primary care.

The idea of polyclinics has been re-vitalized to a certain degree in a number of countries of this group. There is a growing interest in the cooperation of solo practices and more integrated approach to care (Ettelt et al, 2009). Also, the composition of primary care settings has expanded through attracting a few categories of specialists (gynaecologists, ophthalmologists, ENT specialists, cardiologists, surgeons) and making them first contact providers in a number of countries (Kringos et al, 2015, p. 59). However, these trends don't question the core role of GPs in these groups and can hardly be interpreted as the return to the model of multispecialty polyclinics.

In Russia, this model has not changed. The separation between generalist and specialty care in polyclinics has not happened. DPs don't have any autonomy as providers of primary care. The composition of PHC is much broader than in CEE countries (even those that are extending it). An average urban polyclinic in big cities staffs 15-20 categories of specialists and serves the area of 50-100 thousand residents (in Moscow city even more), while a polyclinic in small towns – 5-8 specialists serving 20-50 thousand people. Primary care facilities in rural areas are mostly solo practices with the staff ranging from a district internist (GPs are rare even here) to a paramedic. They all are units of bigger facilities located in the urban areas.

A model of multispecialty polyclinic differs substantially from group practices. First, it is bigger in terms of the staff and catchment area. Second, it includes much more specialists and nurses than in any group practice. Our estimate of the share of specialists in the total number of polyclinics' physicians is 65%, while DPs (including GPs) – only 35%. Third and most important is that polyclinic is an administrative body rather than a voluntary cooperation of providers. They are headed by administrators who make decisions on patient lists for individual DPs, determine a scope of preventive services following the orders of health authorities, ration expensive diagnostic resources and drugs for each physician, set the size of salary and performance bonuses for medical workers. The legal responsibility for physicians errors is shared between the staff.

The Law on the Basics of Health Protection (2011) has conceptualized an extended composition of primary care by introducing a concept of “specialized primary health care”, that is primary care provided by specialists working in the staff of multispecialty polyclinics. They are currently regarded as primary care providers - irrespective of the referral pattern (most of

them are not the first contact physicians). This is an “extreme” form of the extended composition: primary care becomes an equivalent of outpatient care.

4.2. Governance of primary care

Governance is evaluated by a number of indicators. The major one is *vision on primary care*, that is the availability of explicitly laid down policy documents on current and future primary care (Kringos et al, 2015 p. 42). In Russia, there are no specific strategic documents on the development of PHC, but this sector is represented in a few official strategies, of which the most important is the “State program of health care development” issued in 2012 for the period until 2020. It states the priority of primary care and focuses on its role in health prevention and health education. The coverage of preventive services is planned to increase, while the access and quality of curative services are not addressed in this document. There is no vision on the ways how to attract physicians to this sector and mitigate their shortage (section 4.3), what should be done to strengthen DP’s coordination function, how to increase comprehensiveness of care provided at this level and ensure continuity of care. It is not clear whether newly trained GPs will replace district internists or supplement them, what will be the relative numbers of generalists and specialists. Thus the directions, mechanisms and targets of reforming this sector have not been determined.

Another indicator is the *level of PHC responsibilities and governance*. The system was highly decentralized in the 1990-s with the major role of municipal governments. But decentralization has strengthened the inequalities in policies and funding across local areas, because they differ much in terms of financial capacity and the level of governance. Therefore the process of re-centralization started in mid-2000s. Currently, the governments of the regions (region is a major administrative unit in Russia with the population ranging from 1 to 12 million people) are responsible for primary care delivery and funding. Also, the role of the federal MOH has substantially increased, while the role of communities and other stakeholders remains low. The association of GPs is available but does not have any voice in shaping the policy. Similarly, medical universities are not involved. The chairs of general practice are available only in a few of them. They don’t influence the structure of post graduate students and can’t advocate the priority of primary care.

The centralization of the governance has contributed to the equalization of financial resources and activated the *policy on equal distribution of primary care practices*. It is focused mostly on coping with particularly acute shortages of primary care physicians in rural areas. Physicians are encouraged to work in rural areas through a lump sum compensation of the housing cost (60% of the cost is compensated by the federal government, 40% - by the regional

authorities). Some regional governments have initiated their own programs of educational loans for medical students, provision of new equipment for rural practices, deployment of physician and midwifery practices. However, most of regions don't have financial capacity to support such programs. The impact of the current equalization efforts is marginal (Shishkin et al, 2016).

Promoting responsiveness and quality of care in Russia is carried out through a set of educational activities, requirements to PHC premises, equipment, information provision, as well as patient complaint procedures. The involvement of community and professional associations is low with the major decisions made by the federal and regional governments. The concept of quality control prevails over quality assurance. There are plenty of controlling bodies which check claims of providers, identify underprovision of care and its low quality (FOMS, 2015), but the positive activities to strengthen quality of primary care are very limited. Evidence-based clinical guidelines for GPs are unavailable.

Four CEE countries - Slovenia, Romania, Estonia, Lithuania - have high scores of primary care governance in the PC Monitor. They have a clear vision of the selected topics of primary care development. Communities and other stakeholders are deeply involved in health policy, there are many activities to equalize resources and ensure quality of primary care. Hungary, Slovakia and Poland are scored as the country with the weakest primary care governance in Europe, while Latvia and Bulgaria hold an intermediate position (Kringos et al, 2015, p. 43-48). However, the evaluation of governance can hardly be limited to a set of formal indicators used in the PC Monitor. Its analysis requires much more information on the actual governance process and its outcomes. This information is unavailable for CEE countries. Therefore, we score governance in Russia as low but abstain from comparing it with CEE countries for this dimension.

4.3.Economic conditions of primary care

Economic conditions are strongly dependent on the total health expenditure and the proportion spent on primary care, as well as the financial barriers for access to care for patients. The level of physicians' remuneration is also an important indicator. It influences the attractiveness of primary care professions and quality of care.

In Russia, health sector has traditionally been a low budget priority. The share of public health funding in GDP did not exceed 3% in the 90-s. In the last decade, the situation has changed to the best - mostly due to a number of large-scale health programs initiated by the Federal Government. Public health funding in constant prices has reached its pre-reform level of 1991 only in 2007 and then started to grow fast until 2013 with the reversing trend in the current economic crisis (Shishkin et al, 2016). The share of total and public health finance in

GDP is respectively 5.9 and 3.7% - substantially lower than in all CEE countries, except for Latvia (Table 1). Per capita public health expenditure in Russia in 2013 (762 USD) was 2.1 times lower than in Czech Republic (1651), 53% lower than in Hungary (1169), 37 % than in Estonia (1131) (WHO, 2015).

Table 1. The share of health expenditure in GDP in Russia and selected CEE countries in 2014, %

	Total health expenditure	Public health expenditure
Bulgaria	8.44	4.61
Hungary	7.41	4.88
Latvia	5.88	3.72
Lithuania	6.55	4.45
Poland	6.35	4.35
Romania	5.57	4.47
Slovakia	8.05	5.84
Slovenia	9.23	6.62
Czech Republic	7.41	6.26
Estonia	6.38	5.03
<i>Russia</i>	<i>5.90</i>	<i>3.70</i>

Sources: WHO data base, 2016; Flek, 2016, p.19.

The share of outpatient expenditure in total public expenditure went up from 34.1% in 2010 to 40.2% in 2014 with the corresponding decrease in the share of inpatient care (Flek, 2015, p. 28). The share of PHC expenditure, that is spending on services provided by DPs, is around 10%, which is close to most of CEE countries (Kringos et al, 2015, pp. 51-52). With all limitations of the latter estimate (due to the unavailability of the uniform methodology for calculating primary care expenditure), we may conclude that per capita PHC expenditure in Russia is roughly 35-100% lower than in CEE countries. The level of district physicians salary was around 10000 in 2013 (RIA, 2014). This is 15-45% less than in CEE countries (Kringos et al, 2015, pp. 51-52).

The coverage for primary services is complete in Russia, while the coverage for prescribed medicines is low. The total number of people covered by drug programs doesn't exceed 4% of the population. The share of public expenditure in total drug expenditure is 11%, while the average indicator for Europe is 48%, 34% in Lithuania, 63% in Czech Republic (WHO database, 2016). Thus Russia is practically the last in the European region in the scope of drug benefits in monetary terms. This limits the capacity of PHC providers.

Summing this up, we may conclude that the economic conditions of PHC development in Russia are *lower* than in all CEE countries.

4.4. Workforce development

Workforce development is measured mostly by the regulatory activities of the government and incentives for medical graduates to become general practitioners. *Planning primary care workforce* in Russia is concentrated in Federal MOH. It plans a total number of outpatient care professionals without a focus on DPs as major providers of primary care. The long-term planning does not exist, therefore a prospective shift to primary care workforce is not planned. The estimates of the current demand for primary care personnel are based on the unfilled vacancies statistics. This approach underestimates the demand, because the vacancies don't reflect the work in more than one position and too high workload of the existing physicians (section 4.5). According to the PC Monitor, PHC workforce planning capacity is also weak in CEE countries, except for Slovenia (Kringos et al, 2015 pp. 56-58).

Regulation of workforce supply in Russia is equally not focused on primary care. The Federal MOH plans the total number of medical students without attempts to affect the structure of physicians supply and activate training of primary care physicians. Universities have a substantial discretion in setting the number of postgraduate students by specialties. The survey of medical universities conducted by the National research university – High school of economics in 2016 indicated that only 20% of them had a general practice subject in undergraduate medical training and 70% had postgraduate positions in general practice. (HSE, 2016). These shares are close to 100% in CEE countries (Kringos et al, 2015, pp. 56-58).

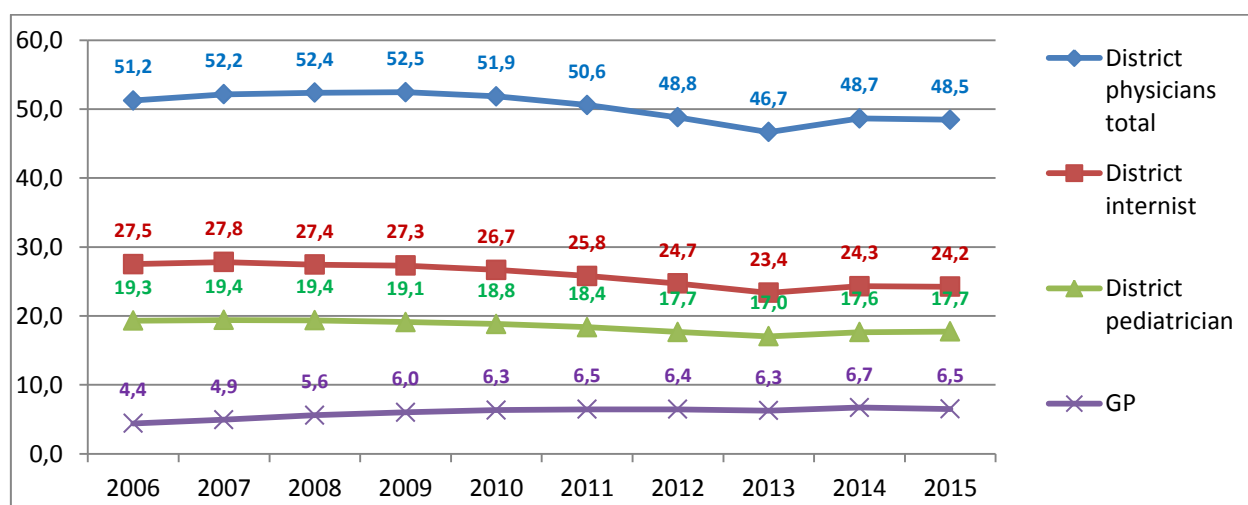
The attractiveness of general practice in Russia is low. Medical graduates are reluctant to take on the job of DPs, including general practitioner, - mostly due to a salary size lower than that of specialists. A share of DPs older than 55 years was 57% in 2003 (Rostovceva, 2004) and now is even higher, while in Latvia and Lithuania it is 25-27%, Estonia, Slovenia and Slovakia – 33-38%, Hungary – 48%. The formal working time of Russian DPs is 38 hours a week, but 55% of them work overtime (sometimes on 1,5-2 positions), therefore, according to the survey of physicians, the overall working time is 47,6 hours a week (Levada Center, 2016, p.34). In six CEE countries GPs work between 40-48 hours a week, in three countries -35-38 hours. In all these countries the level of GPs remuneration is lower than that of specialists (Kringos et al, 2015, pp. 56-58; OECD, 2016).

Overall scores of CEE countries for this dimension are generally low with the exception of Slovenia, Estonia and Lithuania that are closer to the median score for European countries (Kringos et al, 2015, p. 62). The workforce planning capacity is equally low practically in all

post communist countries, while the regulation of health work supply (with the focus on GPs) is stronger in CEE countries. With all this in mind, we score Russia as relatively *lower*.

4.5. Access to primary care

The major indicator is *the supply of primary care physicians per head of population*. In Russia the number of DPs per resident has had a downward tendency over the last 10 years. A decrease in the number of district internists and pediatricians has not been compensated by the increase in the number of GPs. The latter still have a marginal role in primary care provision (fig. 1).



Source: MOH, 2015 A. The annual issues for 2006–2015.

Fig. 1. Number of district physicians per 100 000 population in 2006–2015 in Russia

A worldwide tendency of the specialization of health workforce and decrease in the share of generalists (Lafortune and Moreira, 2015) is particularly strong in Russia. This tendency started in the 1970-s and is still in place. Polyclinics are increasing staffed with specialists. Having a leading position in Europe in physicians-population ratio, the country has relatively less PHC physicians per head of population. The latter amount to only 9.5% of the total physicians supply against 15-25% in CEE countries, except for Poland (table 2). This share is even higher in Western European countries, with 30% average for Europe (OECD, 2012, p.69).

The average number of patients per district internist is 2622 adults, while the target (normative) of the MOH is 1700. In some regions district internists have to serve 3000-3500 patients (Rosstat, 2015). Our estimate of the shortage of district internists is around 30%, the shortage of district pediatrician is close to 10% (the actual number is compared with the MOH's target of patient list). Most of CEE countries also face the shortage of PHC physicians but it is mostly a regional disproportion (Kringos et al, 2015, pp 69-71), while in Russia this is a

nationwide issue. Even in Moscow city the number of residents per district internist is around 3000, that is nearly twice higher than the target and much higher than the average in Europe.

Table 2. Total number of physicians and primary care physicians in Russia and selected Central and Eastern European countries in 2013 *

	Physicians per 100 000 population **	PHC physicians per 100 000 population***	Share of PHC physicians in total number of physicians, %
Bulgaria	397,67	62,93	15,8
Lithuania	427,70	86,28	20,2
Poland	221,40	21,48	9,7
Romania	248,40	59,88	24,1
Slovenia	263,03	49,78	18,9
Croatia	303,26	53,72	17,7
Czech Republic	368,92	70,13	19,0
Estonia	328,30	78,60	23,9
<i>Russian Federation</i>	<i>489,00</i>	<i>47,18</i>	<i>9,5</i>

* data on Hungary, Slovakia and Latvia is unavailable; **including dentists - according to the definition of physicians in Russia; *** GPs for CEE countries, the sum of GPs, district internists and district pediatricians for Russia.

Sources: WHO, 2016; Rosstat, 2015.

There are also *substantial differences in the distribution of PHC physicians*. Physicians-population ratio in rural areas is 3.5 times lower than in urban areas (14.3 and 45.1 respectively) in spite of the activities to mitigate this gap. The difference between regions with the highest and lowest physician per head is 45 % (MOH, 2015), while in CEE countries this gap is much lower – 7-10% with the exception of Bulgaria (Kringos et al, 2015, p. 69-72). Higher geographic imbalances in Russia reflect much lower density of population and higher share of rural population. As noted above, the Government makes attempts to mitigate these imbalances.

Types of contact between patients and physicians also determine access to care. Obligatory minimum opening hours are available in Russia and CEE countries, except for Slovakia. Appointment system for patient contacts through electronic devices is usually used in Russian urban areas (but very seldom in rural areas), Estonia, Latvia, Lithuania, Poland and Slovenia, while only occasionally in the rest of CEE countries. Telephone and e-mail consultations are not practiced in Russia, while they are used at least occasionally in most of CEE countries. In spite of the acute shortage of PHC physicians, Russia is an absolute leader in the incidence of home visits – 25-30 visits per district physicians a week, while in CEE countries

it is very rare – from 2 visits a week in Estonia to around 10 in Lithuania (Kringos et al, 2015, pp. 69-72).

Financial barriers in general don't impede access to primary care in the entire group of post communist countries. Small co-payment for a visit to GP exists only in Bulgaria, Latvia, Estonia and Czech Republic. In Russia all primary care is formally free. However, patients often have to pay for the services which are in short supply (sometimes informally). The longitude surveys indicate that the share of patients who pay for physician visits rose from 8.5% in 2001 to 14.9% in 2014 (Shishkin et al, 2017).

When considering all indicators of access to care, Slovenia, Poland, the Czech Republic, Hungary and Lithuania have relatively high scores, while Bulgaria, Latvia the lowest. All other CEE countries have a medium level of access to primary care. Russia has roughly the same patient contacts, but a lower PHC physicians-population ratio and a very unequal geographic distribution. DPs are overburdened with the resulting low access to primary care. Overall score of Russia for this dimension is “*lower*” than in CEE countries.

4.6. Comprehensiveness of primary care

Four major indicators were selected to measure comprehensiveness. The first is the *availability of a set of 9 items of simple equipment in DPs' offices*. The survey of 171 Russian DPs indicates that only 37% of respondents are equipped with glucose tests, 27 – ECG equipment, peak flow meter – 24, otoscope – 15, instruments for stitching wounds, urine strips, infant scales, gynaecological spectrum – only 1%. DPs have the average 1.6 items from this list. Most of them are available only in the specialists' offices (HSE, 2016). According to the PC Monitor, all this equipment is available in GP's offices of Bulgaria, Estonia, Latvia and Lithuania all GPs, while in other CEE countries – 6-8 items (Kringos et al, 2015, pp.93-97). It means that 70- 80% of primary care physicians in these countries are well equipped to provide care for children and women, as well as a portion of care that is provided in Russia only by specialists.

The involvement of primary care physicians in treatment and follow-up of a set of 9 diseases. According to the survey, 81 % of DPs usually or often treat cases of chronic bronchitis, 76% - peptic ulcer, around half - pneumonia and uncomplicated diabetes type II, while only 40% deal with the cases of congestive heart failure and rheumatoid arthritis, 30 - mild depression, 22% - cancer (in need of palliative care). The average Russian primary care physician is involved in treatment and follow-up of less than 5 diseases from the list (table 3). General practitioners in Bulgaria, Estonia, Hungary, Poland regularly treat all 9 diseases, in Latvia, Lithuania, Romania and Slovenia – 7-8. Only in Czech Republic and Slovakia the level

of GPs' involvement is practically the same as in Russia – 5-6 diseases. Thus the score for Russia is in the bottom of CEE countries.

The *involvement of primary care physicians in provision of a set of 11 preventive services*⁴. Preventive care has traditionally been the cornerstone of PHC system in Russia. Currently, a nationwide program of medical prevention (“dispanserization”) is in place. It covers most of the working population. Children are covered by immunization and regular check-ups. Specialists are also involved in preventive activities. The survey indicates that DPs provide 7 of 11 preventive services – relatively more than in all CEE countries (5-7 services).

The *percentage of total contacts with patients handled solely by DPs without referral*. DPs were asked to make this estimate for their own practices. The average share for all respondents is 71%. According to the PC Monitor, this share is 80-92% in half of CEE countries (Estonia, Bulgaria, Czech Republic, Hungary and Slovenia). Lithuania and Slovakia are close to Russia – 70-72%, while Romania and Latvia have a surprisingly low indicator – 35 and 16% respectively (the reason is unknown). In most of Western European countries this share is 85-95% (Kringos et al, pp.93-97). Thus the Russian score is lower than in half of CEE countries.

We don't weight high preventive services in the overall measure of comprehensiveness of care, because efficiency of prevention remains low (section 5). The percentage of total contacts with patients handled solely by DPs has the highest weight. One third of first contact patients in Russia don't receive a necessary care and are referred to specialists. This indicator highlights all other features of primary care delivery. Therefore, our estimate is that comprehensiveness of care is substantially *lower* than the average in CEE countries.

4.7. Continuity of care

The PC Monitor distinguishes two major types of continuity: 1) the level of the longitudinal relationship between primary care providers and patients, measured in the PC Monitor through the availability of patient list, its size, percentage of patients satisfied with certain parameters of GPs performance (relationship continuity); 2) teamwork of providers, including collection of each patient's medical information, referral system, communication between generalists and specialists (management continuity).

As noted above, Russia has inherited a system of *patient list* and it is still in place, as in all CEE countries. Patients are free to choose primary care centers and DPs once a year. The *average size of the population per DP* is 2063, while in most of the CEE countries (except for

⁴ Immunization for tetanus, allergy vaccinations, testing for sexually transmitted diseases, screening for HIV/AIDS, influenza vaccination for high-risk groups, cervical cancer screening, breast cancer screening, cholesterol level checking, family planning/contraceptive care, routine antenatal care (in line with national scheme), routine paediatric surveillance for children up to 4 years.

Slovakia) this indicator is lower - between 1550-1850 (Kringos et al, 2015, pp. 78-80). Thus the workload of physicians in Russia is the highest, which is the indicator of a more limited capacity for the activities to ensure continuity of care. To make this burden lower, some regions, including Moscow city, have introduced positions of DPs “on duty” in polyclinics and allowed patients to see them instead of their regular doctors. Also, home visits are increasing made by the specialized teams of physicians and nurses so that to respond more rapidly to patients calls and to allow DPs to see more patients in their offices (Shishkin et al, 2016). These innovations have contributed to a growing productivity of physicians but at the expense of lower continuity of care. Patients have to contact different providers, while those that are “on duty” are usually unaware of their health problems.

Patients’ satisfaction indicators are low. The survey of the MOH covering 90 thousand people from all regions of the country indicates that 46% of respondents are satisfied with their DPs (MOH 2015B). However, this indicator is much lower than in all CEE countries where 70-90% of patients trust their GP/primary care primary care physicians and the same proportion is happy about relations with their regular doctors (Kringos et al, p.p. 78-80). These estimates indirectly measure relationship continuity of care.

Management continuity in Russia relies on good *information systems*. Practically all PHC physicians in Russia urban areas are currently equipped with computers. They are used for keeping medical records, financial administration, prescription of medicines, making appointments. These practices are common in all CEE countries (Kringos et al, 2015, pp. 78-80).

Incoming information about after-hours patient contacts is an important indicator of continuity. The survey of DPs indicates that only 28% of them have the information on their patients’ hospital admissions and 29% - on the contacts with medical emergency service. The majority don’t know about these contacts (table 3). In Estonia, Check Republic, Slovakia incoming clinical information is usual, while in the rest of the CEE countries it is occasional, probably, similar to Russia.

Most of Russian DPs (70%) often or usually use *referral letters*, including relevant information on diagnostics and treatment performed, but very seldom specialists communicate back to a referring physician after an episode of treatment. These indicators are similar to CEE countries.

Table 3. Distribution of responses to the questions about continuity of primary care in Russia (% of total respondents)

Questions	Often/usually	Seldom/occasionally
To what extent do patients with the following diseases receive treatment/follow-up care from their DP?		
chronic bronchitis	81	19
peptic ulcer	76	24
congestive heart failure	40	60
pneumonia	56	44
uncomplicated diabetes type II	55	45
rheumatoid arthritis	39	61
mild depression	29	71
cancer in need of palliative care	22	78
Do you receive information within 24 hours about your patients' hospital admissions and contacts with health emergency service?	28	72
To what extent do you use referral letters including relevant information on diagnostics and treatment performed	74	26
To what extent do specialists communicate back to a referring district physician after an episode of treatment?	10	90
Is it common for DP to have regular face-to-face meetings (at least once per month) with midwives, social workers, PC physiotherapists, pharmacists, mental health workers	5	95
How often do medical specialists visit a PC practice to provide joint care with a DP (joint consultations)?	14	86
How often do medical specialists provide clinical lessons for DPs?	11	89
How often specialists visit PC centers to provide specialty care normally provided in hospitals (replaced specialty care)?	5	95
How common DPs ask telephone advice from medical specialists?	30	70

Source: HSE, 2016

The scores of the continuity of care in CEE countries are high for Estonia, Czech Republic, Slovakia, Latvia – they are on the top of the list of European countries, while Lithuania and Slovenia are in the bottom (Kringos et al, p. 83). Russia may be highly evaluated in terms of the availability of patient list, use of computers, referral practices, patient choice. However, the modern forms of communication between physicians are very rare. The capacity of primary care providers to ensure a ‘smooth’ movement of patients from one stage of service

delivery to another is limited - due to a high workload of DPs (substantially higher than the average for CEE countries). Patients' satisfaction rates are substantially lower. With all this in mind, our score of continuity of care for Russia is *lower* than for CEE countries.

4.8.Coordination of care

Coordination function of primary care physicians includes activities within primary care, as well as managing their interaction with specialists and hospitals. Three major elements of coordination are discussed in the PC Monitor: GP-gatekeeping as the instrument to coordinate care and thereby control unnecessary costs, cooperation between primary and secondary care, and the skill mix of PHC providers, that is the organization of primary care that can facilitate or hinder coordination.

In Russia, *gatekeeping* has been inherited from the Semashko model and formally is still in place. A referral is required by the regulation to access most specialist physicians. However, the shortage of DPs is undermining this requirement. Free access to some specialists is growingly allowed so that to make the workload of DPs lower. Our survey of DPs demonstrates the scale of this process: 87% of respondents indicate that patients have direct access to gynaecologists/obstetricians, 78% - surgeons, 75% - urologists, 70% - ophthalmologists and ENT specialists, 65% - dermatologists. Less common is a direct access to cardiologists (22% of DPs report this access), oncologists (31%), neurologists (35%), endocrinologists (38%). Thus DPs don't control the access to most of specialists, their capacity to coordinate care is limited.

According to the PC Monitor, the full gatekeeping system (that is referral is needed to access most of specialists) exists in Bulgaria, Estonia, Lithuania, Romania, Slovenia. The partial gatekeeping system is in place in Hungary, Latvia, Poland: patients need referral to only a set of specialties. This group of countries is closer to Russia in terms of gatekeeping. However, even here cardiologists, neurologists, ophthalmologists and ENT specialists are always seen with referrals (Kringos et al, pp. 84-88), which is not the case in Russia. In Czech Republic and Slovakia no formal gatekeeping system is in place.

Cooperation of primary and secondary care was evaluated by a number of questions (table 3). The regular face-to-face meetings with midwives, social workers, physiotherapists, pharmacists, mental health workers are practiced regularly by only 5% of Russian DPs. Joint consultations by DPs and specialists are reported by 14% of respondents, clinical lessons for DPs provided by specialists – 11%. Specialists very seldom visit PC centers to provide specialty care normally delivered in hospitals (replaced specialty care). Telephone advice by specialists is a little more common – 30% of DPs reported it as the regular practice. The previous research, based on a large-scale survey of physicians and health managers, indicates that only 21% of

polyclinics physicians have some professional contacts with hospital doctors; only 10% of DPs receive information on the results of rehabilitative care for their patients; the communication between physicians through information systems is reported by 19% of physicians (Sheiman, Shevski, 2014, p134).

The cooperation is limited in CEE countries either – with the exception of clinical lessons by medical specialists for GPs. They are practiced in Czech Republic, Estonia, Latvia, Slovenia, Lithuania. In other countries of this group, all forms of cooperation are not reported. The use of nurse-led diabetes clinics (this indicator was chosen for the incidence of chronic disease management) is equally uncommon in all discussed countries (Kringos et al, 2015, pp. 84-88).

The skill-mix of primary care providers is measured through the incidence of the various forms of organization. Single-handed practices prevail in Bulgaria, Czech Republic, Slovakia, Hungary and Latvia, group practices – in other CEE countries (Kringos et al, pp. 84-88). In Russia, as noted above, the dominant model is a multispecialty polyclinic with DPs working together with practically all outpatient specialists

In the absence of comparable data on the actual referral patterns in CEE countries, Russia may be carefully evaluated as the country with partial gatekeeping. The indicators of cooperation are equally low in all discussed countries. Thus the score for Russia is *the same* as the average for CEE countries.

4.9. Efficiency and quality of primary care

Efficiency and quality are not clearly defined in the PC Monitor and the comparative data is not presented. The incorporation of Russia in the analytical tables is impossible. Therefore we use our own indicators of efficiency - hospital admission rates, volumes of inpatient care, frequency of contacts with emergency care because of unavailability of primary care. The presumption is that the stronger PHC systems are more likely to reduce demand for medical care provided outside primary care settings. The major indicator of quality is patients' satisfaction with regular primary care physician.

Data on avoidable hospital admissions is available for CEE countries (OECD, 2016) but unavailable for Russia. Therefore we use broad admission rates for all specialties and diseases. They vary substantially across post communist countries (table 4) reflecting a number of factors, including the strength of PHC. Russia has higher rate than in most of CEE countries, except for Bulgaria and Lithuania. The number of bed-days per capita (the indicator of the total volumes of inpatient care) is substantially higher than in all CEE countries. It is worth to note that Belarus – another country with a very conservative strategy of primary care development (Boerma et al,

2009) – has even higher volumes of inpatient care utilization. Similar situation in Bulgaria and Lithuania requires a separate analysis.

A total number of emergency visits (in emergency service and polyclinics) per 1000 residents in Russia has not changed over the last decade and currently amounts to 530 (MOH, 2015). That is half of the population in average needs emergency care at least once a year. This can be roughly compared with the indicator of the “proportion of residents who visited an emergency department because primary care was not available” that was presented in the recent OECD report as an indicator of the strength of PHC (OECD, 2016, p. 47). This share is high in Slovakia and Czech Republic – respectively 74% and 54% but much lower in Slovenia – 42%, Bulgaria – 32, Estonia – 30, Hungary – 22, Latvia and Lithuania – 20, Poland – 18%. Thus the average demand for emergency care in Russia is substantially higher than the average for CEE countries.

Table 4. Inpatient care utilization in the selected post communist countries in 2014 (or the nearest year)

Countries	Number of total hospital admissions per 100 residents*	Number of total bed-days per one resident**
Poland	17.14	1.18
Estonia	17.53	1.33
Slovenia	18.41	1.27
Latvia	18.55	1.54
Romania (2013)	19.80	1.46
Slovakia	19.99	1.46
Hungary	20.35	1.93
Czech Republic	20.94	1.96
<i>Russia</i>	<i>21.80</i>	<i>2.61</i>
Belarus	33.1	3.34
Lithuania	23.95	1.92
Bulgaria	32.20	0.95

*In hospitals of all types.**Admission rate is multiplied by the average length of stay

Source: WHO, 2016.

The relatively higher volumes of inpatient and emergency care reflect the shortage of primary care physicians, their limited task profile, the lack of activities for chronically ill, low continuity of care. Altogether they reflect people’ mistrust in district physicians. As noted above,

the level of patients' satisfaction is lower than in all CEE countries. Therefore, the score for Russia in efficiency is *lower*.

5. Discussion

The comparable analysis indicates that Russia and CEE countries have some similarities in primary care models - free access to care, the availability of patient list, full or partial GP-gatekeeping in most of these countries. However, distinctions prevail, of which the most important is a difference in the role of GP, the degree of private sector involvement, employment status of physicians, as well as the role of multispecialty polyclinics. Taken together, they determine two different models of PHC: pluralistic in CEE countries and a highly concentrated polyclinic-based model in Russia.

Russia has the same score relative to the average for CEE countries only in one primary care dimension – coordination of care. The scores for the rest of dimensions are lower, particularly in accessibility, comprehensiveness and continuity of care. The score of the selected efficiency indicators is also relatively low. There are three major indicators of PHC weakness that accumulate all other characteristics: i) much lower patients' trust in their regular doctor, ii) a substantially lower share of patients that can receive all necessary care with their primary care doctor, iii) higher volumes of inpatient and emergency care.

The relative weakness of primary care can be accounted to a general underfunding of health care, which limits resources of this sector. But there are a few reasons that reflect the prevailing model of governance and organization of primary care. First, *there is no clear vision of the role of primary care*. The rhetoric of its priority is not supported by practical activities to mitigate the shortage of DPs and improve their structure dimensions. The proclaimed focus on preventive services doesn't compensate for the fundamental weaknesses of the model of service delivery. A large scale prevention campaign is poorly focused on risk groups. The actual medical needs of the poor and disabled remain unclear. There is no dynamic surveillance of the revealed cases. Polyclinics report on their number rather than activities to treat them. Chronic cases management as a systematic activity common in Europe (Nolte and McKee, 2008) is not conceptualized as the governmental policy and very limited in Russia. The lack of regulation in this area leads to a growing gap between the levels of primary and overall morbidity - from 1.8 in 2000 to 2,1 in 2014, that is a growing number of patients with the revealed diseases become chronic cases (Shishkin et al, 2016).

Second, *the excessive specialization of primary care* has brought to life a model of a generalist with very limited curative and coordinating functions. Specialists have replaced rather than supplemented them – both in numbers and their role in provision of primary care.

Generalists have turned into the internal medicine specialists dealing with a few simplest cases and losing the core position in primary care system (Denisov, 2007). A general practitioner is not particularly needed when specialists prevail in polyclinics. Therefore, a shift to GP model has not happened. It has been rejected by an “extreme” form of extended composition of primary care. Also, the delegation of curative functions from generalists to specialists has become a never-ending process: new specialists make the role of generalists lower and this in turn requires additional number of specialists. A health system with a low role of GP is doomed to these shortages (Gerry and Sheiman, 2016).

Third, a status of newly trained GPs as salaried workers in multispecialty polyclinics limits their professional autonomy and responsibility. The dependence of generalists on administrators comes into conflict with the natural variability of their work patterns. They deal with a patient as a whole, must know his/her environment and therefore require more operational autonomy which can hardly be provided in big settings with uniform standards of work. In Russian polyclinics DPs have to follow the targets of full coverage of patients by a fixed set of preventive services without a chance to choose those with higher risk. They can't affect the balance between preventive and curative work, therefore prevention becomes an additional burden rather than a well perceived activity with clear outcomes. Not surprisingly, the newly trained general practitioners usually feel uncomfortable in polyclinics and can't realize their new competences. There is a growing perception that a salaried status and dependence on administrators hinders the development of general practice in Russia. The alternative to this is an independent work – mostly in group practices (Shishkin et al, 2016).

The comparison of Russia with CEE countries has contributed to better understanding of the role of extended primary care composition in the form of multispecialty polyclinic model. The conceptual presumption that this model presents new opportunities for more integrated care and better performance has not been supported by the evidence. Polyclinics in Russia don't demonstrate advantage over the relatively smaller settings of solo and group GP practices that dominate in CEE countries. The potential of polyclinics is not used because of the lack of specific activities for integration, such as joint management of patients, common clinical protocols, sharing information, regulation of patients' paths in service delivery, enhancing the role of GP in team work and the referral process, ensuring the feedback of specialists, etc. Simple decisions like merging providers and making the facilities bigger may or may not lead to integration and therefore don't constitute the major vector of strengthening integration. Similar arguments were presented in England in 2007-2008, when the proposals to set up multispecialty facilities (similar to Russian polyclinics) were discussed and then rejected (Imison et al, 2008).

Also, economic incentives for the staff in polyclinics are weak. They are paid through a combination of capitation and FFS methods. But the amount of revenue does not affect the size of the salary of workers. The recent innovations with pay-for-performance are not related to the comprehensiveness of care and therefore don't provide incentives for professional development. The salary of GPs is only 10-15% higher than that of district internists. The regional pilots with polyclinics acting as fundholders have encouraged more comprehensive patterns of work (polyclinics can keep the savings if they contribute to lower volumes of inpatient care), but they still don't ensure a direct link of individual workers' remuneration size with polyclinics' revenue. The economic "signal" for an entire facility does not reach individual physicians and nurses (Sheiman, 2016).

A model of polyclinic has brought to life a new category of specialists that provide only outpatient care and therefore have limited professional competence (e.g. non-operating urologists staffed by polyclinics). Thus the process of GPs' replacement in polyclinics threatens professional development of a broad category of outpatient physicians.

Strengthening primary care does not necessarily mean dismantling polyclinics. This can hardly be implemented in the current social and political context. Therefore, we suggest: i) a step-by-step autonomization of DPs within polyclinics, with their eventual pattern of work as free-standing group practices; ii) starting up self employed group practices for newly trained GPs; iii) a transformation of polyclinics into providers of mostly specialty care; iv) a careful extension of primary care composition in group practices - a broader involvement of advanced nurses and a limited number of specialists that can support the work of GPs.

The comparison of pluralistic and highly concentrated models of primary care may serve a lesson for the FSU countries, as well as for other countries that are looking for the ways to strengthen it. A first message is that there are no uniform decisions on organization of primary care but there is a common vector of transformation from the inherited model, and it can't be ignored. Most of CEE countries have started this transformation earlier, therefore could strengthen their health systems. Second – there is no alternative to a shift to general practice. Third – a pluralistic model of primary care is preferable. Fourth – an extended composition of primary care should supplement rather than replace the role of generalists. The immediate task is to overcome the shortage of district physicians through a set of the regulation activities.

6. Conclusion

Starting with the similar background, Russia and CEE countries have taken totally different ways of primary health care transformation, including the role of general practitioner, multi-specialty polyclinics and private sector. The comparison of this diversity has demonstrated that the scores of primary care in Russia are relatively lower. A model of multi-specialty

polyclinics that prevails in Russia has its strengths and weaknesses, but even strengths are not actually used to ensure more coordination and continuity of care, and improve primary care performance. The delay with a shift to a general practitioner model makes primary care less comprehensive, limits the coordination function of primary care provider and therefore generates demand for narrow specialists and hospital admissions. The dominance of polyclinics and the salaried status of primary care physicians, together with the low size of their remuneration, make this profession unattractive for medical universities graduates and therefore reproduces the shortage of physicians.

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