A LOOK INTO PRIMARY CARE ACROSS MIDDLE INCOME COUNTIES IN EUROPE AND CENTRAL ASIA

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BACKGROUND: In September 2012, the 53 member states of the World Health Organization (WHO) European Region adopted a new strategic framework of health policies called Health 2020.

WHO in collaboration with the Netherlands Institute for Health Services Research (NIVEL) developed a tool for the evaluation of the primary care from a health system's perspective: the Primary Care Evaluation Tool (PCET).

METHOD:The PCET has been administered in nine countries. It consists of three structured questionnaires: one captures the national level structure, context and status of primary care, the second captures the primary care physician perspective and the third captures the patient perspective. The patient and physician surveys are administered to capture a nationally representative sample. We use this publically available data compare primary care in these areas.

RESULTS: Primary care varies across these nine cases. Five of the nine cases have a primary care department within their government.

All cases have some form or primary care – however, the proportion of physicians practicing in primary care ranges from 12% in the Russian Federation to 35% in Ukraine. The percentage of patients living within 20 minutes of a primary care physician also varies. Most cases with a higher percentage of patients living within 20 minutes of a primary care physician also have a higher number of cases per primary care physician per day – the Russian Federation is a notable exception. In five of the nine cases, home visits are negatively correlated with the proportion of patients living within 20 minutes of the primary care physician.

Coordination and Comprehensiveness also varies from country to country. All nine cases reported some continuity in primary care; most cases reported high longitudinal and informational continuity

CONCLUSIONS: The role and importance placed on primary care varies across the nine cases. The PCET can be used to gather information for decisions in the area of organizing primary care services.

Keywords: primary care, management, health policy, health services research, health care, health systems, Europe, Asia, middle-income countries

INTRODUCTION
Primary Care is the health system's foundation

Over the past three decades, a broad-based consensus has been building that governments should prioritize primary care in their efforts to engage with the health system. The 1978 Alma Ata Conference on Primary Health Care declared that primary care is "the central function and main focus" of a country's health system, and that it is "key to attaining" good health "as part of development in the spirit of social justice" [1]. Since that time, research in a variety of contexts has confirmed that strong primary care services contribute to improvement in health outcomes, equity and efficiency.[2]

Primary care is defined as "that level of a health system that provides entry into the system for all new needs and problems, provides person-focused (not disease-oriented) care over time, provides care for all but very uncommon or unusual conditions, and coordinates or integrates care provided elsewhere or by others"[3]. Healthcare systems with a strong primary care base provide a comprehensive and coordinated approach to patient care at all levels [4].

In so doing, they are able to reduce the number of hospitalizations and emergency room visits; as well as improve health outcomes [4-6].

Hospital care is defined as that level of a health system "offer[ing] a varying range of acute, convalescent and terminal care using diagnostic and curative services in response to acute and chronic conditions arising from diseases as well as injuries and genetic anomalies"[7]. Unlike primary care, it is focused on episodic curative care, where the provider-patient relationship is limited to the consultation [4].

Health 2020

In September 2012, the 53 member states of the World Health Organization (WHO) European Region adopted a new framework of health policies called Health 2020 [8]. The main objectives of the new strategy are: to improve health for all, to reduce disparities in health, and to improve governance and leadership for health.

Health 2020 identifies primary care as the foundation for the health system of the 21st century and highlights its central role in supporting healthier communities. However, the policy document also recognizes that, in many countries, primary care suffers from "limited recognition, narrow responsibilities, weak multi-disciplinary approach and insufficient funding"[8]. For example, country health budgets are predominantly allocated to curative services for acute illnesses and to new diagnostic technologies. This phenomenon takes place to the detriment of primary care, prevention and health promotion.

Strengthening primary care is a priority in most of these countries, but primary care's role in the larger health system and ongoing reforms vary a lot from one country to another [8]. Our aim is to explore the status of

Table 1 - Nine Cases of Implementation of PCET Administration

Country	Data Collection Year(s)	Location	Aim
Belarus	2008-09	Minsk (only Minsk city) and Vitebsk	Monitoring the progress of policies and reforms in order to establish new priorities.
Kazakhstan	2008-09	Almaty and Zhambyl (with the aim or representing the entire country)	Providing data to strengthen primary care.
Republic of Moldova	2011-2012	National level representative sample	Providing data to strengthen primary care.
Romania	2010	National level representative sample	Evaluation of primary care.
Russian Federation	2007	Shatura and Stupino (both in Moscow region)	Tool testing
Serbia	2009	Vojvodina, Belgrad and Central Serbia	Monitoring the progress of policies and reforms in order to establish new priorities.
Slovakia	2010-2011	National level representative sample	Monitoring the progress of policies and reforms in order to establish new priorities.
Turkey	2007	Bolu and Eskisehir	Tool testing
Ukraine	2009	Kiev and Vinnitsa	Monitoring the progress of policies and reforms in order to establish new priorities.

primary care across middle-income countries in Europe and Central Asia.

METHODOLOGY
The Primary Care Evaluation Tool

WHO, in collaboration with the Netherlands Institute for Health Services Research (NIVEL), developed a tool for the evaluation of primary care from a health systems perspective: the Primary Care Evaluation Tool (PCET) [9]. It consists of three questionnaires: one captures the national level structure, context and status of primary care, the second captures the primary care physician perspective and the third captures the patient perspective (for details regarding this tool, see [9]. The patient and physician surveys are administered to capture a representative sample.

Data collection and analysis

The PCET has been administered in nine countries, over the course of four years: Belarus, Kazakhstan, Moldova, Romania, Russian Federation, Serbia, Slovakia, Turkey and Ukraine. It is important to note that some administrations were at the regional level – therefore, we will refer to all 9 administrations as cases rather than countries. A report was published for every case and can be found on WHO European Regional Office website [10]. Table 1 presents a brief summary of each case's administration (i.e., time frame of data collection, location and aim).For further case-specific information, please see the corresponding report.

Limitations

It is important to recognize that only three of the nine cases of PCET administration provide national level data (Republic of Moldova, Romania and Slovakia). In all cases, results reflect self-reported behaviours and experiences of the respondents.

Also, the Turkey administration was used to test and further modify the PCET tool. In Romania, the

PCET was used in conjunction with another tool: the Primary Care Quality Management Tool.

Also, data collection for all nine cases spanned four years – allowing some time for the situation to have changed across these cases.

Analysis

As international comparisons should take into account the context of the cases presented, we first present each country's standing on several macro-economic indicators related to health.

Then, we explore the status of primary care across all nine cases for which PCET data is currently available. Of all the available indicators, we selected ones that were available across all nine cases (whenever possible) and that provide a broad view of that status of primary care (access, continuity, coordination and comprehensiveness) across cases. These indicators reflect the functions of the health system, as well as the extent of development and importance granted to the primary care services.

RESULTS
Context

In Table 2, we present each country's standing with respect to several macro-economic indicators related to health [11].

The macro-economic and health indicators presented vary greatly across these countries. We recognize that these indicators provide only a glimpse into each country's context, but we hope they provide sufficient background to recognize that there is a great deal of complexity behind their primary care systems (explored below).

Primary Care Comparison

Gathering data from the reports published by WHO, we present a comparison of these nine cases (Table 3).

Table 2 - Macro-economic and health indicators

Indicator	National gross income, US$ per capita (2011)	Total health spendings as % of the NGI (2010), WHO estimated	Life expectancy at birth in years (2008)	Infant mortality rate estimated at 1000 live births (World Health Report) (2010)	Crude mortality rate at 1000 population (2008)	UNDP index of human development (HDI)
Republic of Moldova	1980.00	11.68	69.42	16.00	11.75	0.65
Ukraine	3120.00	7.72	68.07	11.00	16.37	0.73
Serbia	5680.00	10.36	73.98	6.00	13.97	0.77
Belarus	5830.00	5.62	70.57	4.00	13.83	0.76
Romania	7910.00	5.58	73.47	11.00	11.77	0.78
Kazakhstan	8220.00	4.30	67.18	29.00	9.74	0.75
Russian Federation	10400.00	5.08	67.99	9.00	14.62	0.76
Turkey	10410.00	6.74	71.90	12.00	5.95	0.70
Slovakia	16070.00	8.80	75.05	7.00	9.83	0.83

Source: Health for All Database

Table 3 - Selected indicators

PCET Categories	PCET Indicator	Belarus	Kazakhstan	Republic of Moldova	Romania	Russian Federation	Serbia	Slovakia	Turkey	Ukraine
Stewardship	Department within the Ministry of Health dedicated to primary care	yes	yes	no	no	no	yes	no	yes	yes
Resource generation	Percentage of physicians active in primary care(%)	12.4	15	17	29.5	12	28	19	13.8	34.9
Access	Percentage of patients living at 20 minutes distance from the general practitioner of family doctor practice (%)	62	30	48	70.8	77	73	70	79	42
	Average number of consultations per day per GP/FD	30	23	27	26	23	39	47	47	23
	Average number of home visits per week per GP/FD	27	24	12	6.8	5	4	5	1.7	24
Coordination	FDs/GPs sharing premises with other GPs	27	33	Urban: 99	31.6	60	51	GPCs: 85	90	32
				Rural: 63				GPAs: 72		
Continuity	Patients reporting having been with this FD/GP for at least 1 year	79	59	92	93.9	64*	78	GPCs: 85	59	92
								GPAs: 87		
	% of primary care physicians reporting keeping medical records of	90	77	76	94	92	GPs: 92	98	43	79
Comprehensiveness	GP/FD reporting frequent use of the clinical guidelines (%)	86	87	NA	47.8	87	61	49	16	71
	Role of GP/FD as first contact for care for 18 selected health problems (1=never, 4=always)	2.2	2.39	2.9	2.7	2.68	2.1	1.78	2.47	2.37
	Involvement of GP/FD in treating 19 selected illnesses (1=never, 4=always)	3	2.81	3.1	Urban: 2.9	3.32	3	2.95	2.59	2.89
					Rural: 3.8					
	Involvement of GP/FD un performing a selection of 6 preventive and technical-medical procedures (1=never, 4=always)	1.56	1.5	1.2	1.33	2.69	1.5	1.3	2.41	1.49
	GP/FD doing screening for cervical cancer (%)	65	66	100	14	NA	16	3	NA	45
	GP/FD providing family planning/ contractive services (%)	56	77	100	54	NA	11	3	NA	49

* pentru acest studiu indicatorul PCET a fost "% de pacienţi care raportează că au fost cu acest medic de îngrijiri primare cel puţin 3 ani"
MGA = medic generalist pentru adulţi; MGC = medic generalist pentru copii şi adolescenţi; MF = medic de familie; MG = medic generalist

Stewardship & Resource generation

Only five of the nine cases have a distinct primary care department within the ministry of health; indicating that there is a varying degree of interest in this part of the health system at the health policy level. However, the organization of the stewardship function doesn't necessarily require the existence of a distinct department.

From the perspective of resource generation, the degree of primary care development can be evaluated in a more objective manner through the proportion of doctors who work in primary care. Of the 9 cases presented in Table 3, most of the former soviet states appear to have a lower proportion of physicians practicing in primary care (12-19%, with Ukraine being the exception at 34.9%). The three remaining cases have a similar variation in the proportion of physicians working in primary care (with Romania and Slovakia at almost 30% and Turley at 13.8%).

Access

One's ability to access primary provider services relies on a number of factors, one of which is distance to the primary care physician. The percentage of patients living no more than 20 minutes away from a primary care physician varies greatly across countries. Former soviet states have a wide range for this indicator (30-77%) with three of the six cases under 50%. Romania, Serbia and Turkey have most patients (70.8-79%) reporting that they are within a 20minute distance from a primary care physician. Percentages over 70% can be interpreted in this context as better access or having a more developed primary care network.

Combing this measure with the number of daily consults, we notice that an average primary care physician in both Republic of Moldova and Romania is reported to see about 26-27 patients per day; however, in Romania, 70.8% of those patients are reported to live less than 20 minutes from the doctor's office, compared to only 48% in the Republic of Moldova. Primary care physicians see a similar number of patients per day but the patients from Republic of Moldova are likely to have travelled farther for those services.

Primary care physicians in Turkey and Slovakia see the largest number of patients per day, at 47 consults. Both cases also have a high percentage of patients living within 20 minutes of their primary care physician. The smallest number of consultations is found for physicians in Kazakhstan, Ukraine and Russian Federation; the first two cases having the lowest percentage of patients living within 20 minutes of their primary care physician and the latter having among the highest percentage

Focusing specifically on home visits, we see that Belarus has the highest number of home visits per physician per week (at 27), even when they have among the highest proportion of patients living within 20 minutes of the primary care physician. In Ukraine and Kazakhstan, one physician does 24 visits per week. Physicians in Romania, Slo-

vakia and Russian Federation perform around 4 to 6 home visits per week.. In these five cases, the number of home visits performed is negatively correlated with the proportion of patients living within 20 minutes of the primary care physician. The lowest number of home visits per physician per week is done by Turkish physicians. Nonetheless, they also perform the most consults per day and have the highest percentage (79%) of patients living within a 20 minutes distance to the practice.

Coordination

One measure of coordination assess the level of coordination within primary care. One PCET indicators is the proportion of primary care physicians sharing the premises. Among these nine cases, we see a great deal of variation (from 27% in Belarus to 90% in Turkey and even 99% among urban providers from the Republic of Moldova).

A second measure of coordination assess the level of coordination with other care levels. There were no PCET indicators for this measure that were available for all cases. Therefore, this measure is not reported in this study.

Continuity

One measure of continuity assesses the longevity of the patient-to-primary-care-physician relationship. All 9 cases reported more than 50% of patients having been with their current primary care physician for at least 1 year. In three of the 9 cases (Republic of Moldova, Romania and Ukraine), that percentage is above 90%.

Another measure of continuity assess the level of informational continuity. The percentage of primary care physicians reporting keeping medical records of all patient contacts on a routine basis varies only somewhat, with most cases reporting in the 90th percentile (Turkey being the biggest exception at only 43%).

Comprehensiveness

The studies used several relevant indicators: the use of therapeutic guidelines by the physician, role of the primary care physician as first contact for 18 illnesses, involvement in the treatment of 19 illnesses, use of 16 medical procedures, involvement in the cervical cancer screening, providing family planning and contraception services, as well as providing routine antenatal care.

Physicians from Republic of Moldova report being most involved in approaching public health problems: all of them report providing cervical cancer screening, family planning and antenatal care. In Slovakia, only 3-5% reported providing such services, while in Romania, 14% are involved in the cervical cancer screening, 54% in family planning and 88% in antenatal care.

The system's gate keeper role is not very obvious for almost all researched countries. Answers regarding the role of first contact for 18 illnesses were clustered

between 2 and 3 (on a scale of 1=never, 4=always). Regarding primary care physicians' involvement in the treatment of 19 illnesses, there aren't noticeable differences between countries. Respondents indicated that not all the 19 illnesses are treated at this level of the health system.

The use of 16 medical procedures was investigates in the same way. Except for Russia and Turkey, all the other countries had scores between 1 and 3, which means that few medical procedures are done in the primary care practices. These last 3 indicators suggest that none of these countries uses the full professional potential of the primary care physicians and that their gate keeper role is present, but at variable extent.

CONCLUSIONS AND DISCUSSIONS

Health 2020 identifies primary care as the necessary foundation for the health system of the 21st century. As strengthening primary care has been and is a priority, this study presents a broad overview of the status of primary care across middle-income countries in Europe and Central Asia (as measured by the PCET).

Specifically, we found that only five of the nine cases presented have a primary care department within their Ministry of Health. All cases have some form of primary care – however, the proportion of physicians practicing in primary care varies widely. The percentage of patients living within 20 minutes of a primary care physician also varies. Most cases with a higher percentage of patients living within 20 minutes of a primary care physician also have a higher number of cases per primary care physician per day – the Russian Federation is a notable exception. In five of the nine cases, more home visits correlated with fewer patients living within 20 minutes of a primary care physician.

Coordination and Comprehensiveness also varies from country to country. Physician respondents from Republic of Moldova reported that they all provide cervical cancer screening, family planning and antenatal care. In Romania,

the percentage of physicians offering such services varied widely by service; while, in Slovakia, only 3-5% of physicians reported providing such services.

All nine cases reported some continuity in primary care; most cases reported high longitudinal and informational continuity.

We found data collected via the PCET tool to be informative. However, many of the PCET cases represent only several regions within a country, so results cannot be extrapolated to the national level. Therefore, we recommend that future data collection efforts focus on capturing samples representative of the national level (and regional level if funding permits). National level data would allow for a country to country comparison, as well as for the sharing of successful experiences from one country to another: exploring patterns of care, tensions, and exceptions to general trends.

We note that comparative analyses should take into account countries' regulations surrounding primary care provision. For example, in Romania, there are legal provisions regarding the daily number of consults or workload of the physician. Physicians from this country are likely to find themselves within the mandated range. Also, in some countries, all physicians reported providing certain services. Perhaps, in these cases, there are national public health programs and/or regulations mandating that these services be performed. The first portion of the PCET (the survey of structure, context and status of primary care at the national level) attempts to capture this contextual information.

We recommend that tools, such as the PCET, be used as they are designed to capture not only the service provision (from the patient and physician perspective) but also the national circumstances (policies and structures) that support the observed service provision. These data provide a more comprehensive view not only of the status of primary care but also the facilitators and barriers involved.

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