World Health Organization
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Strengthening the model of primary health care in Estonia

Assessment report

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UNIVERSITEIT GENT

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By Jan De Maeseneer

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Abstract

Faced with increasing rates of chronic conditions, multi-morbidities and a growing elderly population, strengthening the primary health care model in Estonia is of critical importance. Moreover, recent health system reviews have signalled with clear consensus the importance of reviewing the organization of primary care to best respond to population and individual health needs. In this context and backed by the available evidence, this assessment sets out to explore the organization of primary care looking to three key interrelated policy questions: (1) How can a population approach be adopted, with consideration in particular to the existing health information system? (2) What are the possible organizational models for primary care providers and settings that would match population needs? And further, how do these promote coordination with other services, such as services delivered in hospital and by social care? And, (3) How do health system enabling factors support the transformation of health services delivery in terms of accountability, incentives and health workforce competencies? The assessment identifies applicable options based on innovative approaches and country experiences according to the variables reviewed. From these, eight policy recommendations are put forward for consideration in working to further strengthen the PHC model in Estonia.

KEYWORDS

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Acknowledgements

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List of abbreviations

ECTS	European Credit Transfer and Accumulation System
EFFA IHSD	European Framework for Action on Integrated Health Services Delivery
EHIF	Estonian Health Insurance Fund
ICD-10	International Classification of Diseases, tenth revision
ICPC-2	International Classification of Primary care, second edition
OOH	out-of-hours
PCZs	primary care zones
PHC	primary health care

Key vocabulary

Gatekeeper	the function of a health provider at the first contact level who has responsibilities for the provision of primary care as well as for the coordination of specialized care and referral.
Group practice	describes a medical practice in which the patient population is cared for by a number of associated/affiliated physicians. A group practice usually implies some degree of partnership. Group practices can be single-speciality or multi-speciality.
Multidisciplinary (multi-speciality) group practice	describes a group practice with membership of family physicians and other primary care disciplines.[2]
Organizing providers	is defined as the alignment of the health workforce to match selected services and their design with the distribution of professional roles and scopes of practice and the arrangement in which the health workforce works according to settings of care and practice modalities for the provision of services as envisaged.
Primary care	describes a type of care and setting for health services delivery that supports first-contact, accessible, continued, comprehensive and coordinated care to individuals and communities.[3]
Primary care centre	describes a facility housing personnel who provide a number of primary care services, e.g. family physicians, community nurses, health educators. Social services may also operate from such a centre.[2]
Primary care team	describes a group of health care providers and ancillary staff serving the same population or geographical area sometimes occupying the same building and working together to provide different, but complementary services.[2]
Primary health care	refers to the approach elaborated in the 1978 Declaration of Alma-Ata based on the principles of equity, participation, intersectoral action, appropriate technology and a central role played by the health system for the delivery of services that are made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development, in the spirit of self-reliance and self-determination.[3]
Settings of care	describe the varied types of arrangements for services delivery, organized further into different facilities, institutions and organizations that provide care. Settings include ambulatory, community, home, in-patient and residential services, whereas facilities refer to infrastructure, such as clinics, health centres, district hospitals, dispensaries or other entities, for example, mobile clinics and pharmacies.[3]
Single-speciality group practice	describes a group practice in which all physician members belong to the same speciality.[2]

[1] Starfield B. Primary care: concept, evaluation, and policy. London, Oxford University Press; 1992.
[2] Bentzen N (ed). WONCA international dictionary for general/family practice. WONCA; 1995 (http://www.ph3c.org/PH3C/docs/27/000092/0000052.pdf).
[3] Glossary of terms. The European Framework for Action on Integrated Health Services Delivery. English-Russian version. Copenha-gen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/en/health-topics/Health-systems/health-service-delivery/publications/2016/glossary-of-terms.-the-european-framework-for-action-on-integrated-health-services-delivery.-english-russian-version-2016).

Background

Following the WHO Regional Office for Europe country *assessment on Better noncommunicable disease outcomes: challenges and opportunities for health systems (1)* and the World Bank Group report on The state of health care integration *(2)*, the need for reviewing the organization of primary care in Estonia was made clear.

The objective of this assessment is to provide technical advice on how to strengthen primary health care (PHC) in order to tackle the burden of chronic conditions, increasing rates of multi-morbidities and a growing elderly population, while also improving overall services performance, including the integration of services.

This report seeks to answer the following policy questions:

1. How can a population approach be adopted, with consideration in particular to the existing health information system?

2. What are the possible organizational models for primary care providers and settings of care that would match population needs? And further, how do these promote coordination with other services, such as services delivered in hospital and by social care?

3. How do health system enabling factors support the transformation of health services delivery in terms of accountability, incentives and health workforce competencies?

These questions will be explored in the sections that follow, leading to a set of policy recommendations on possible approaches for strengthening the model of PHC in Estonia.

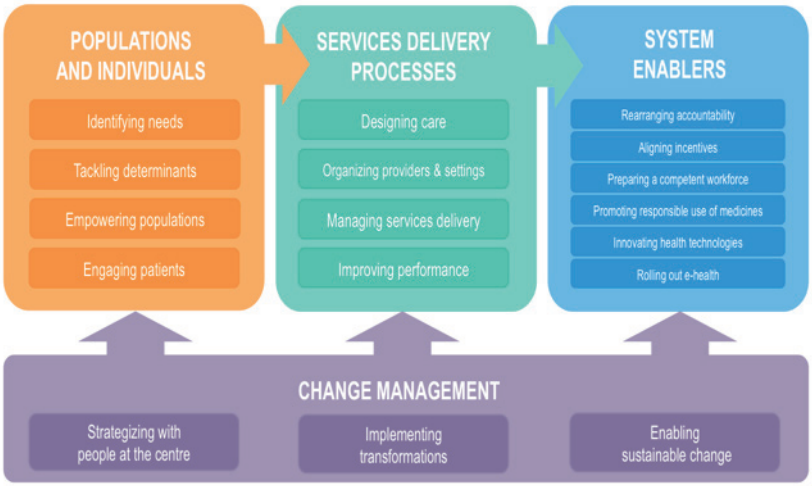
Methods

This report is based on the findings of a study visit that took place from 29 to 31 March 2016 in Tallinn, Estonia. In preparation of the assessment, relevant documents published in recent years in the context of Estonia were studied, namely the reports *Health system review: Estonia (3)* and *Better noncommunicable disease outcomes: challenges and opportunities for health systems: Estonia country assessment (1)*. A recent study on the state of health care integration in Estonia was also reviewed, including its summary report and presentations *(2,4)*, as well as qualitative research results from focus group discussions *(5)* and key informant interviews *(6)* and research questions for delivering care in the appropriate setting *(7)*.

During the in-country period, visits to different health facilities and interviews with facility staff were also conducted. Visits included Järveotsa primary care centre in Tallinn, Rakvere hospital, and a family doctor's practice, also in Rakvere.

The assessment is ultimately guided by the principles put forward by the European Framework for Action on Integrated Health Services Delivery (EFFA IHSD) and its approach to transforming health services delivery that is anchored in the alignment of four key domains: population and individual health needs; health services delivery processes; health system enablers; and change management (Fig. 1). This assessment has put focus to the first three domains, tailored to explore the current organization of primary care and relevant system conditions as per the three policy questions described (see Background).

Fig. 1. Overview of the European Framework for Action on Integrated Health Services Delivery



Source: Strengthening people-centred health systems in the WHO European Region: framework for action on integrated health services delivery. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0004/315787/66wd15e_FFA_IHSD_160535.pdf?ua=1).

Using the framework as a guide, the investigation looked to explore relevant variables focused on strengthening the PHC model, such as the structure of primary care practices, skill mix, opening hours and patient transitions (Table 1). For each variable, options based on innovative approaches and experiences from countries found applicable to the current context are highlighted, together with relevant policy recommendations.

Table 1. Variables reviewed in assessment applying the EFFA IHSD

Domain	Areas	Variables
Populations & individuals	Identifying needs	• Identifying patient population health needs
Services delivery processes	Organizing providers and settings	• Structuring primary care practices • Determining mix of disciplines • Extending opening hours • Streamlining patient transitions
System enablers	Rearranging accountability	• Aligning organizational structures
	Aligning incentives	• Matching provider in centives to services
	Ensuring a competent workforce	• Recruiting and training a primary care workforce

Results of the assessment

Populations and individuals

1. Collecting a comprehensive set of population health data

In Estonia, there is no shortage of health data. For example, the Estonian Health Insurance Fund (EHIF) documents interventions and procedures for both primary care and hospitals. However, epidemiological data that offers a detailed description of the population's health needs is lacking. Moreover, while patient satisfaction is regularly assessed and some measures address barriers to accessing care, a systematic approach to record and analyse these barriers is missing. Overall, the existing information does not allow for conclusions on service needs at the community and/or level of specific patient groups.

Taking into account the demographic and epidemiological changes and the paralleled increase of chronic conditions and multi-morbidity, information on both diseases and functional status according to the International Classification of Functioning, Disability and Health are required in order to be able to adequately design services and forecast future human resources for health.

In general, three strategies can be used in order to collect a comprehensive set of data. A first strategy relies on a national health survey that works to apply an extensive interview tool and/or questionnaire looking to measure health needs, social determinants, access to care, satisfaction and the health literacy of a representative sample of the Estonian population (e.g. 5000 interviews every three years will provide a comprehensive picture). A second strategy consists of sentinel practices of family doctors systematically registering, for example, chronic conditions and infectious diseases. The involved practices should comply with scientific standards in relation to registration. Such a system informs both changes in incidence of illness such as infectious diseases (influenza) and changes in prevalence of chronic conditions. A group of 25–30 family practices, representing the diversity of the Estonian population, could contribute valuable information. A third possible strategy is based on data related to care processes – preventive, primary care, hospital and social services.

In this context, the role of the national data repository, as the central electronic infrastructure recording the health information of all the citizens, should be reviewed to determine: does this system support access to patient-related information on the processes of services delivery, to clinical interventions or to epidemiological profiles? In its current format, the national repository does not allow information to be searchable in a systematic way. Similar considerations apply to the information found in patient electronic records.

[4] International Classification of Primary Care, second edition (ICPC-2) *(8)* and the International Classification of Diseases, tenth revision (ICD-10).
[5] ICPC-2 for primary care and ICD-10 for secondary care and hospitals.

Overall, information is not coded according to international classifications and information is not structured according to episodes of care that group all the information in relation to a certain diagnosis *(8,9)*. The use of appropriate classification systems and the structuring of information around episodes of care would ensure the data collected in the services delivery process serve as an important resource for epidemiological analysis and quality assessment. Especially for primary care, it is worthwhile to look at ICPC *(10)*. The advantage of using ICPC-2 at the primary care level is that the system enables encoding also at the symptom level; in primary care, a first encounter often does not lead to an established diagnosis of the problem. The system classifies reasons for the encounter, interventions and procedures. ICPC-2 codes are electronically matched with ICD-10 codes, which allow easy compatibility with codes used at secondary care in the hospital sector.

Good examples of nation-wide use of ICPC-2 codes can be found in Denmark, Finland, Norway and the Netherlands. Moreover, in Finland, guidelines and evidence-based medicine information is linked with ICPC-2 and coded episode titles *(11)*.

Services delivery processes

2. Shifting from single to group-practice

At present, almost all Estonians are registered to one of the approximately 800 patient lists: 74 percent of these lists are managed in solo practices consisting of one family doctor assisted by one or two family practice nurses. Usually, a list with less than 1200 patients is not economically sustainable. If the list has more than 2000 registered patients, an assistant family doctor is added to the practice. The maximum number of patients on a list is 2400.

Many single-practices are providing comprehensive care at the community level and have longstanding relationships with groups of patients. However, the average age of family doctors is 55 years and the number of family doctors graduating yearly does not balance with the number of those retiring. Therefore, it is not realistic to build further on the model of single-practices. Moreover, young doctors prefer to work in group practices and opt to work in a context that provides better infrastructures and a good work–life balance. Group-practices are conducive to this, allowing for example, part-time work for family doctors. In order to address the shortage of family doctors, especially in rural and remote areas, it is important to review the current organizational model of single-practice lists and to consider a model of group-practice lists where patients are registered to a group of family doctors organized in a common practice.

This change requires the involvement and buy-in of the population. Emphasis should also be paid to key enabling conditions that facilitate this shift, such as the assurance of informational continuity, i.e. providers need reliable and common access to the patient's records. The choice for preferred providers can contribute to the relational provider–patient continuity, for example, each patient could identify one or two preferred family doctors. In this model, the assistant physician – with an incomplete patient list – is perceived by the patient as a member of the practice.

Across Europe there is a general trend towards group-practices finding a group practice environment as a key component for enhanced team cooperation through the co-location of health professionals *(12)*. These practices usually assume the form of "primary care centres" or similar.

A group-practice should have an appropriate legal structure. For example, an association of family doctors who are independent entrepreneurs and employ nurses and support staff or a foundation that employs a team of family doctors, nurses and support staff. The advantage of adopting the associative scheme is that it is similar to the way doctors currently are working yet also creates a hierarchical relationship between physicians and other health professionals. The second approach, establishing a foundation, is perhaps more innovative and creates a horizontal, cooperative model around the patient.

3. Shifting from mono- to multidisciplinary practice

Replacing single-practices with group-practices promotes a shift from a singular (mono) discipline of service speciality towards a multidisciplinary approach to services delivery. Indeed, group-practices can include disciplines like physiotherapy, dietary specialties and social work. In this way, a multidisciplinary approach facilitates the integration of health and social care needed to address the challenges raised by elderly, chronic conditions and multi-morbidity.

The integration of social care into primary care in Estonia could technically be approached in three ways:

1. The EHIF pays for a social worker to work in group-practices e.g. one fulltime equivalent social worker per 5000 registered persons.
2. The group-practice hires a social worker from the municipalities.
3. A social worker employed by the municipality works in the same building as family doctors, but not in the same organization.

The advantages and disadvantages of the approaches should be carefully assessed. The selected approach should ultimately set out to ensure one legal entity is responsible for providing all the additional services in a networked

approach: physiotherapy, midwifery, home nursing, nutritional advice, tobacco control and social work. The advantage of working in one multidisciplinary practice in primary care is that it strengthens accessibility, expands the scope of services, intensifies the multidisciplinary integration of the service delivery including for example, multidisciplinary case discussion, helps to facilitate the provision of services that are relevant with a focus on the goals of the individual patient in terms of quantity and quality of life, while also stimulating task shifting and competency sharing *(13)*. The way the services are provided and the health outcomes are realized should be part of the contractual arrangements between group-practice and the EHIF.

To stimulate family doctors to move from single-practices to group-practice should not be limited solely to financial considerations. Family doctors are sensitive to the working environment and to the fact that they should be able to focus on their core competencies that correspond to their academic level of training. As in many other European countries, family doctors in Estonia spend up to one third of their time performing repetitive interventions, for which they are overqualified.

The following elements may be important in providing the needed incentives for change:

- better infrastructure (including information technology), strategically located in the community and easily accessed by the population;
- better quality of care, maintaining a person-centred approach;
- multidisciplinary cooperation, including social work;
- the possibility to perform additional services;
- administrative support in order to focus on the core function of the family doctors;
- adjusted roles and scope of practice for family doctors and nurses;
- professional management of the primary care centre; and
- better work–life balance, including the possibility to work part-time.

In sparsely populated areas, it may be the case group-practices consist of small units e.g. three family doctors, three nurses, a home nurse, a physiotherapist and a midwife that network with other disciplines and share the electronic patient records of patients on a common practice list.

4. Extending hours with out-of-hours service

The two dominant models of out-of-hours (OOH) service in Estonia are practice-based services, and the use of hospital emergency departments. The EHIF also initiated a primary care consultation phone service in 2005. Similarly, Es-

tonia has a "General Practitioners Advice 1220" advisory phone line available to patients 24/7 in both Estonian and English *(14)*.

Practice-based OOH services were first introduced by the EHIF in 2014, provided by family physicians to their own patients. OOH appointments are now possible in two of the fifteen counties and these visits can be made with both family physicians and nurses. Despite the introduction of this scheme, these services remain unequally distributed across the country and remain voluntary for primary care physicians. Patients continue to primarily turn to hospital emergency departments for OOH care and telephone services available are reportedly underutilized *(15)*.

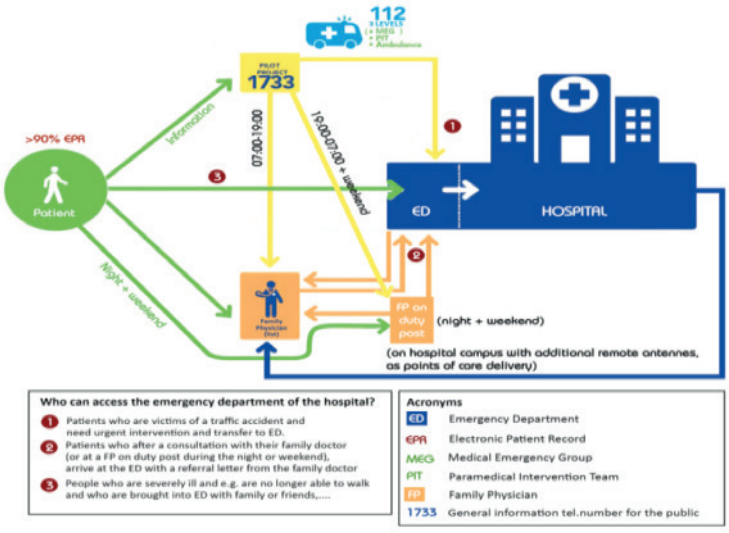
In most European countries, OOH service is organized through family doctors on duty serving a population of roughly 100 000. These services have the potential to improve access to care outside of regular working hours and ultimately contribute to overall speed and reliability of services, patient experience.

The following elements are to be considered in organizing OOH services.

- The OOH services should be opened weekdays e.g. from 20:00 until 08:00 and on weekends from Friday evening (20:00) until Monday morning (08:00).
- There should be a clear policy about the use of emergency departments. Patients should only be allowed to access emergency departments if they meet a certain condition.

Fig. 2 illustrates a proposal for organizing OOH services. In this proposal the family doctor on duty may be situated nearby or even on a hospital premises.

Fig. 2. Model for organization of out-of-hours care



Source: De Maeseneer Jan. Model for organisation of out-of-hours care. Internal discussion-paper. Ghent University, Department of Family Medicine and PHC, 2016

The model depicted in Fig. 2 starts from the fact that a patient is always on the list of a family practice, be it a single-handed practice or a group practice or a multidisciplinary health center. Changing the behaviour of people requires clear information, therefore, the model suggests to have a central national information (labelled number "1733" in the figure above), where people then ask for advice when they are confronted with health problems that in their perception requires direct action. This information point may act as a kind of "triage"-system. The most frequent advice will be during the day to visit the family doctor, at night and in the weekends, to visit the "family physician post" where a family physician duty is available. If at the triage the situation is assessed as "urgent", an ambulance ("112") can be sent out with, according to the needs, a paramedical intervention team or a medical emergency group.

In this system the patient does not have direct access to the emergency department of the hospital, with three exceptions:

1. patients who are involved in a traffic accident and need urgent transfer to the emergency department;
2. patients with a referral letter from the family physician or from the family physician on duty post, indicated that they should be seen urgently, due to their medical condition;
3. people who are severely ill and for example, are not mobile and who are brought into the emergency department by family or friends.

This approach will restrict fundamentally the number of patients arriving to the emergency department, so that these departments can invest the needed time in the care for critically ill patients.

5. Streamlining patient transitions, referrals and discharge

In Estonia, there is a critical miss-match in treatment of acute and chronic conditions *(1)*. The use of emergency departments, for example, is often for self-limiting conditions that should be addressed in primary care. Many specialist visits for chronic conditions could be avoided, for example, cardiologists treat patients with uncomplicated hypertension. This has not only efficiency implications but also affects quality of care as specialist doctors are confronted with too many cases that do not require the use of their specialized competencies.

In order to address this challenge, the following actions could be taken:

- Strengthen primary care in reactive acute care including the organization of OOH service continuity (see sub-section 4 above).
- Improve referral to and discharge from hospital with appropriate information transfer and timely preparation of discharge.

- Encourage the participation of the family doctors in hospital-staff meetings that take important decisions on interventions for a certain patient (surgical intervention, start of chemotherapy). The family doctor should be able to participate remotely.
- Shift from outpatient specialist visits for hypertension to care provided by a group-practice composed of a family doctor, nurses, nutritionists and monitored self-care.
- Reinforce a gatekeeping role in primary care. In order to be referred, the family doctor should provide a short-term (two months) or a long-term (six months, in case of chronic conditions) referral card, for the patient to be reimbursed for specialized or hospital care.
- Facilitate information exchange via one integrated multidisciplinary electronic patient record that should also be accessible by the patient and open to the patient's input, e.g. in formulating goals in terms of quality of life that matters to the patient *(13)*.

Health system enablers

6. Decentralizing practices for optimal scale

Currently, the Estonian health system is characterized by variations in terms of access and quality of care between counties and municipalities. Counties with only a few thousand inhabitants do not have the optimal scale needed to make certain services available or to assure quality of care due to the low volume of procedures.

Organizing primary care in decentralized entities, for example, primary care zones (PCZs), can contribute to the visibility of primary care. Defining the population that accesses a certain group of services and providers in primary care, can contribute to the accountability of providers in terms of outcomes, access and quality of care. A decentralized organization of primary care also can create opportunities for cooperation with local authorities. This could contribute to better coordination between the health and social sectors. Moreover, a decentralized primary care can be used as a platform to attract and recruit candidates for training in health professional education programmes, especially the recruitment for remote and rural areas. Decentralized PCZs may facilitate benchmarking and overall performance assessment. The micro level, decodes the concrete needs of the population as concrete interactions between population, services and providers takes place.

Taking into account the above-described functions of a meso level, there are some indications that a PCZs, with average 100 000 inhabitants (75 000–125 000) is the ideal scale in the provision of services *(16)*.

The functions of such a PCZ could be defined as follows:

- Provide support at the micro level by ensuring organization and mentorship between different disciplines including family doctors and stimulating multidisciplinary and intersectoral cooperation, including the most needed integration of health and social care.
- Organize continuity at the primary care level, for different disciplines (family medicine, pharmacy, nursing, etc). This continuity is different from the patient-related continuity of (planned) care at the micro-level: the practice.
- Implement national programmes for health promotion, disease prevention, curative services, care and rehabilitation, in an integrated manner in order to provide universal access to those programmes.
- Facilitate the coordination between primary, specialized and hospital care with particular emphasis on patients' transitions (referral and discharge).
- Serve as the operational level for the initiative of the National Institute for Health Development, e.g. making the health promotion professional operational at the level of PCZs.
- Implement the provision of human resources for health care (recruitment and retention).
- Interact with national health authorities in order to inform priority setting and eventually adaptation of national policies.
- Facilitate different forms of citizen participation.
- Prepare agreement on complementary health goals, relevant for the PCZ.
- Optimize the utilisation of resources at the PCZ level.
- Assess performance of the PCZs and compare to other PCZs (after controlling for differences in need).

The PCZs could be designed as follows. PCZs group different municipalities and counties respecting the administrative borders of those municipalities and counties with exception of Tallinn and Tartu that have more than 100 000 inhabitants. Neighbouring PCZs can cooperate for those functions that require a larger scale, e.g. in the realization of palliative homecare, here the critical mass could be achieved through the cooperation of at least three PCZs. The principle of this aggregation of processes should always be that higher aggregated levels respect the borders of the composing units.

Such important re-organization requires an explicit change management strategy to reconcile bottom-up aspirations of counties and municipalities with top-down requirements in terms of equity, accessibility, relevance, and quality. Participation of different stakeholders including family doctors, hospitals, patients and citizens is required in order to create the needed ownership of the new model.

7. Aligning incentives to move towards group-practice

Currently, family doctors and nurses contracted by the EHIF are paid with a combination of capitation, performance and allowance scheme. Two thirds of the budget for family physicians comes from capitation. There are five capitation payment groups: under the age of 3 years, aged 3–7 years, 7–50 years, 50–70 years and over 70 years old. Family physicians can receive separate additional fee-for-service payments up to a maximum of 42 percent of their total capitation payment if they participate in the quality bonus scheme and perform according to its standards. The quality bonus scheme, which comprises 45 indicators, includes three domains: disease prevention, chronic disease management and additional activities. Family physicians are eligible for bonus payments if they achieve at least 80 percent of possible points. The Estonian Association of Family Doctors agreed with the EHIF on the procedures to be reimbursed by fee-for-service payment. Practices also receive a basic monthly allowance to cover the costs of facilities and transport for doctors or nurses. Additional payments are made to compensate family physicians in remote areas.

In an organization arrangement based on group-practice, an appropriate financing mechanism should be established. An integrated mixed needs-based capitation could be an option. According to this payment mechanism, once a year the needs of a practice population are assessed according to a set of pre-determined variables captured from routinely available data of the EHIF or from the ICPC-2 encoded records. Software such as the Adjusted Clinical Groups, developed by Johns Hopkins University *(17)*, translates these variables into an assessment of needs, so that the resources needed to take care of a defined population by each primary care team can be estimated *(18)*. The advantages of such an integrated needs-based capitation are: stimulation of a comprehensive team-approach; incentive to empower patients and increase self-reliance; ease of access (no co-payments); stimulation of task-shifting and competency-sharing; facilitates population-orientation.

Apart from the integrated mixed needs-based capitation, a limited set of fee-for-service payments for specific procedures can be provided through the quality bonus scheme. It is of utmost importance that this change is underpinned by a learning trajectory, preparing for multidisciplinary cooperation in practice. The local community and municipalities and counties should be involved in this process as well.

8. Strengthening human resources policy and the training of family doctors

Taking into account the current average age of doctors and the 20 percent of graduates that leave the country, a yearly intake of 150 students in the medical training programme at the University of Tartu is required in order to provide a sufficient medical workforce. According to current European Union regulations, a three-year training programme should be put in place to prepare family doctors as part of their basic training. Additionally, in order to optimize the responsiveness to population needs, the gender balance of the workforce should be taken into account considering, for example, a maximum of two thirds of health providers in a same discipline with the same gender.

An important challenge for family medicine is to find cadres willing to work in rural and remote areas. A pro-active strategy is needed in order to address this problem. Countries like Australia (Flinders University, James Cook University) and Canada (Northern Ontario School of Medicine) have had positive results with a specific recruitment strategy, where talented youth in secondary schools living in rural and remote areas, are selected for medical studies and other health professional educational programmes. The candidates are supported by their communities and strongly encouraged to return and work in their communities. This strategy has demonstrated to be effective in building capacity for human resources in these rural and remote areas.

The increasing exposure in undergraduate training to family medicine is an excellent way to recruit candidates to pursue family medicine. Currently, training on family medicine is offered only in the second and sixth year. Starting in 2017, family medicine training will be provided in the second, third, fifth and sixth years of training. In effect, the time students will allocate to family medicine will double. Nonetheless, there should be more clinical, in-practice, training during the sixth year.

According to European Directive 2005/36/EC of the European Parliament and of the Council on 7 September 2005 regarding the recognition of professional qualifications, last amended on 24 May 2016, training in family medicine requires three years of full-time training, with exposure to hospital departments of at least six and up to a maximum 12 months.

In Europe we identify two approaches to train physicians for family medicine. The first is a college approach where professional and scientific groups, often directed by the Ministry of Health, are responsible for organizing post-graduate training in family medicine, including examinations and licensing. Examples of countries that use this approach include Italy, Spain and the United Kingdom. In a second approach, a (rather) academic approach, the Ministry of Education, often in combination with the Ministry of Health, takes responsibility for training and assessing family doctors, often in the framework of

a three-year master-after-master programme6 in family medicine with 180 European Credit Transfer and Accumulation System (ECTS). This approach operates in the framework of the Bologna Process, and examples of countries that participate are Belgium, Denmark and The Netherlands.

For Estonia, the second approach seems advisable by organizing a three-year training programme as a master-after-master programme. A possible structure could consist of a first year in family medicine practice; one year in a hospital with a focus on the individualized learning agenda of every trainee, and one year in a family medicine team. A master thesis could enhance the scientific basis of the family medicine training programme and stimulate the training of reflective practitioners.

A possible modality for Estonia could be to organize five decentralized academic hubs for family medicine, each comprising three PCZs. These hubs could play an active role in the three-year training programme, stimulate research in primary care and support the process of change, described above. These hubs could raise the prestige of family medicine. Involving primary care practices in training is the most effective investment in quality improvement. With 100 trainees undergoing training for family medicine at any given time, one out of 5–6 primary care practices will in the future be involved in training and linked to an academic hub for family medicine.

Policy recommendations

1. Adopting a population approach to assess health needs

In order to assess health needs and to better document the performance of health ser-vices delivery, initiatives should be taken to optimize data collection and systematically analyse and interpret epidemiological data. A variety of strategies may be used such as national health surveys, sentinel-practices in primary care, a structured episode-oriented registration or encoded ICPC-2 in primary care and ICD-10 in secondary care and hospi-tals. This approach may enhance integration of decision supports and evidence-based in-formation in electronic patient records, linked to ICPC-2 codes.

2. Moving towards group-practices

The current model of a patient list assigned to a family doctor (single-practice) should be replaced by one that assigns a patient list to a group-practice. This should not preclude the relational continuity, for example, patients choose a preferred family doctor within the group-practice.

3. Transforming practices into multidisciplinary teams

Supporting family doctors to work in multidisciplinary teams improves access through ex-tended services, contributes to continuity and ensures accountability for population out-comes.

4. Improving the transition of patients between services

The coordination of services can be promoted by strengthening gatekeeping for special-ized care and hospital, improving family doctors in reactive acute care, including OOHs, designing a clear policy on utilization of emergency departments and improving the transi-tion and particularly the discharge of patients from hospital.

5. Managing facilities for optimal scale

Health services delivery could be organized in 15 Primary Care Zones that ensure opti-mal scale of activities, continuity of care, implementation of national programmes, interac-tion with local authorities, citizen participation, intersectoral cooperation and human re-sources management.

6. Aligning provider incentives

In order to promote multidisciplinary group-practice at the primary care level, incentives need to be reviewed to support the directions of the transformations. For example, the payment mechanisms to providers should enhance focus on population outcomes and coordination between providers, among others.

7. Resourcing prevention and primary care

Important shifts in the breakdown of the EHIF-budget should be made in order to strengthen primary care, long-term care and prevention services. The share of specialist care should decrease accordingly. In 2014, the breakdown of the EHIF budget showed 0.8 percent allocated to prevention, 9.1 percent to primary care and 58.3 percent to spe-cialized care. Taking into account the organizational changes proposed a shift of financial resources should be considered to increase the resources allocated to prevention and primary care.

8. Attracting and retaining family doctors

A policy to attract and retain family doctors should account for the retirement rate of the current workforce, the increased need for primary care due to elderly, chronic conditions and multi-morbidity as well as the need to increase access in rural and remote areas. Recruitment of students for health care professional training from rural and remote areas, may be an appropriate strategy.

Final remarks

Health services delivery in Estonia is confronted with important challenges such as demographic and epidemiological changes and increasing multimorbidity, among others. Strengthening primary care will help to overcome these challenges and, overall, improve performance of the health systems.

In order to achieve this, Estonia counts on a solid and reliable health information technology system, openness to innovation and political commitment to enable change. Careful consideration of the identified options proposed here and recommendations of areas for focus are a first step in working to strengthen the PHC model in Estonia.

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