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EUROPEAN UNION

Strengthening primary Medical care in IsoLated and deprived cross-border arEas

SMiLE Project

D.6.1.3.A

Methodological and Analytical Framework – PHC Assessment Questionnaire

Contract ID

Contract title	Technical Assistance to the 4th Health District of Macedonia Thrace for the Project "Strengthening primary Medical care in IsoLated and deprived cross-border area" - SMiLe, within the framework of the Interreg V-A "Greece-Bulgaria 2014-2020" Cooperation Programme
Contract No	18SYMV003444283
Contracting Authority:	4th Health District of Macedonia Thrace
Contactor:	planO2 Consulting Private Company
Corresponding Contract Deliverable	D.6.1.3.A
Author(s):	Papaioannou Ioanna Tsekeridis Vasileios Argyropoulou Kiriaki Papaioannou Christos Gkiouzepas Giorgos

Review History

Version	Date	Reviewed by	Justification

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Deliverable ID

Project Code:	5012828
Acronym:	SMiLe
Project Title:	Strengthening primary Medical care in IsoLated and deprived cross-border arEas

Deliverable:	D.6.1.3.A Methodological and Analysis Framework – PHC Assessment Questionnaire
Version:	V.1.0

Description:	The current deliverable sets the Methodological and Analytical framework for the Assessment of PHC in the Cross Border Area, proposing a specific questionnaire as a tool to assess the Consumer-client experience.
Keywords:	SMiLe, Information, PHC Assessment, Cross-border Health, Healthcare, Interreg V-A "Greece-Bulgaria 2014 - 2020"Cooperation Programme, cross-border cooperation, European Union, Thessaloniki, Ardino, Harmanli

Target Audience

Leader	Description/Purpose	Audience
LB	Set the Methodological and Analytical framework for the Assessment of PHC Propose a PHC Assessment tool	Project stakeholders (Including the project sponsor, senior leadership and the project team) General Public

Project Partners

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Role	Partner name	Country
Lead Beneficiary	4th Health District of Macedonia Thrace	Greece
Partner Beneficiary 2	Aristotle University of Thessaloniki - Special Account for Research Fund (Department of Medicine)	Greece
Partner Beneficiary 3	Multi-profile Hospital for Active Treatment of Ardino	Bulgaria
Partner Beneficiary 4	Municipality of Harmanli	Bulgaria
Partner Beneficiary 5	National Emergency Aid Center	Greece

Short presentation of the programme

The Cooperation Programme "Greece-Bulgaria 2014-2020" was approved by the European Commission on 09/09/2015 by Decision C(2015) 6283. The total budget (ERDF and national contribution) for the European Territorial Programme "Greece-Bulgaria 2007-2013" is €129,695,572.00. The total financing consists of €110.241.234,00 (85%) ERDF funding and €19.434.338,00 (15%) national contribution. The eligible area of the Programme consists of the Region of Eastern Macedonia-Thrace (Regional Units of Evros, Kavala, Xanthi, Rodopi and Drama) and the Region of Central Macedonia (Regional Units of Thessaloniki and Serres) in Greece and the South-Central Planning Region and South-West Planning Region (Districts of Blagoevgrad, Smolyan, Kardjali and Haskovo) in Bulgaria. The Priority Axes are PA 1: A competitive and Innovative Cross-Border area, PA 2: A Sustainable and climate adaptable Cross-Border area PA, 3: A better interconnected Cross-Border area, PA 4: A socially inclusive Cross-Border area.

Abbreviations

CBA: Cross Border Area

EXPH: Expert Panel on Effective ways of Investing in Health

GP: General Practitioners

PHC: Primary HealthCare

WHO: World Health Organization

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Executive Summary

The current deliverable highlights and summarizes some aspects of PHC performance evaluation, focusing on two methodological frameworks and tools that are relevant to the European setting and developments. In particular, the WHO PHC Evaluation Tool and the Donabedian framework, as was elaborated from De Maeseneer and EXPH are briefly presented. Both of these frameworks take into consideration the recent developments in Europe and propose comprehensive toolkits in order to assess the overall quality of PHC. The focus is then turned on the initiatives to assess PHC in Greece, and the provisions of the law regulating the field. Moreover, the report presents the available primary data on PHC, which are collected through the system for monitoring and evaluation of the Greek Health System of the Greek Ministry of Health. Ensuing, two tools for the assessment of PHC services by the citizens/patients are presented. Both of the tools have been specially designed for Europe and have been validated and standardized in Greece and Bulgaria. The last section concludes by highlighting the importance of integrated PHC assessment and briefly discusses the applicability of the relevant frameworks and tools within the SMiLE project framework.

1   Introduction

The current deliverable is recommending a Methodological and Analytical Framework for the Assessment of Primary Healthcare and its core objective is to propose a questionnaire for the assessment of PHC services by the citizens/patients.

In particular, the scope of the deliverable is to:

- Develop a proposal about the methodological framework of the analysis and evaluation of PHC services from the citizens/patients perspective, and
- Develop an assessment questionnaire.

The scope of the assessment questionnaire is to include aspects about the structure, processes and output of the PHC services and in particular:

- the available infrastructure and equipment (hygiene, safety, accessibility etc.)
- the process of PHC services provision
- the outputs of PHC provision (e.g. in symptoms and functional indicators)
- the level of satisfaction from the services provided
- the interconnectedness of the social, psychological and biological factors concerning the health situation of the population with regards to their quality of life.

All of the above, are undertaken from a person-based perspective in accordance with the latest developments in the field and the underlying guidelines of the regulatory PHC framework in Greece as it is enacted in Law 4486/2017.

Both the methodological and analytical framework and the questionnaire take into account the latest developments and the relevant international literature about performance assessment of Health Care System and build upon previous work on the field.

The second part of the deliverable presents the toolkits and frameworks for PHC focusing in the toolkit of the World Health Organization and the assessment guidelines for PHC in Europe, as they are expressed by the EXPH. The third part shortly presents PHC assessment initiatives in a national level. The fourth part presents the proposed framework and questionnaire for the assessment of PHC services by the consumer-client in the Cross-Border Area. Finally, the fifth part concludes by highlighting the importance of PHC evaluation and discusses the proposed tools and frameworks with regard to the SMiLe project.

2   Methodological and Analytical Frameworks for the PHC

Strengthening Primary Health Care is a priority for many countries in Europe and the world, either as a mean to tackle the issue of rising healthcare costs, or the issue of a changing demographic and epidemiological basis. Evaluation and monitoring of healthcare systems performance play an important part in the contemporary decision-making process, as evidence-based decision making is taking the centre stage with regards to reforms. Within this environment, PHC assessment systems are indispensable and not surprisingly have been the focus of the World Health Organization, the European Commission, and other leading institutions in the field.

The following sections describe the framework utilized in the Primary Care Evaluation Tool (PCET) of WHO, as well as the Opinions on Tools and Methodologies for Assessing the Performance of Primary Care of the Expert Panel on effective ways of investing in Health of the European Commission. The above were selected to be presented in the current deliverable as they are considered to be the most relevant within the SMiLe project framework that needs to take into account:

- the cross border character of the are
- the differences in the Health Care Systems
- the European advancements
- the challenges that both the EU-member states and the CBA are facing.

2.1   The World Health Organization Toolkit

According to the WHO Europe Primary Health Care Evaluation Tool (WHO Europe, 2017) Health systems aim to achieve three fundamental objectives as presented below.

1. improved health (for instance, better health status and reduced health inequalities)
2. enhanced responsiveness to the expectations of the population, encompassing: respect for the individual (including dignity, confidentiality and autonomy), and client orientation (including prompt attention, access to services, quality of basic amenities and choice of provider);
3. guaranteed financial fairness (including households paying a fair share of the national health bill; and protection from financial risks resulting from healthcare) (p.2).

The above definition shows that Health Care Systems have a multifaceted role that is much wider than just the provision of Health Care Services. Moreover, it incorporates the national aspects such as resources availability, and therefore performance assessment is assessed based both on the goal attainment and the available resources and processes.

The WHO Europe toolkit suggests that there are four key functions that determine Health System Performance.

1) Stewardship: Is an overall function that is broader than just regulating the field. It includes three basic aspects

a) setting implementing and monitoring the rules

b) assuring that all patients, providers are treated fairly from the rules

c) defines strategic directions for the health system

2) Resource generation: Refers to providing the necessary resources for the system to function properly, as well as expanding and developing them in order to sustain a certain level of performance. It includes both physical aspects and human resources and knowledge. It also includes the actual state of the workforce size, distribution, skills, development etc.

3) Financing: Refers to the process by which funds are collected by primary (patients, firms) or secondary (government, donors) sources, how these are pooled together and are broken down to finance the activities of the health systems.

4) Service delivery: Service delivery refers to the health services (either preventive, curative, rehabilitative) to patients, as well as services for the general public (e.g. healthy lifestyle promotion, occupational health education etc) through all institutions involved.

The key function interact between them in the following way.
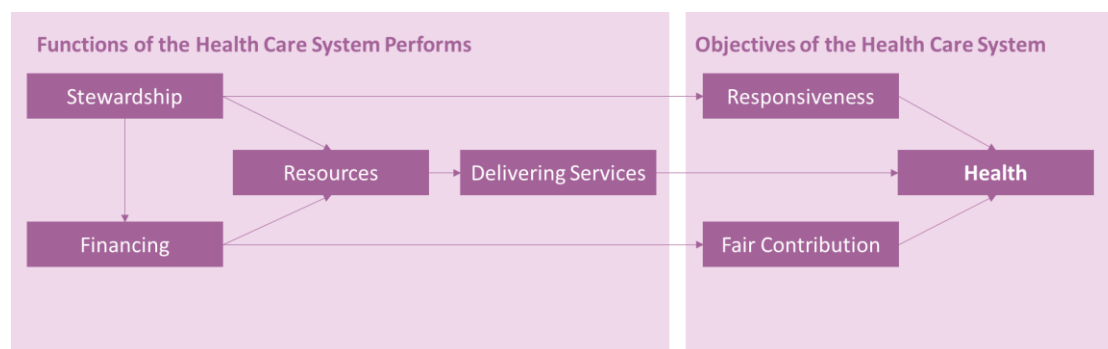
Figure 1: WHO health system functions and objectives

Concerning PHC, the above functions can be further broken in Sub-functions, Dimensions and in the final level as items or proxies that can be used to assess the performance of the PHC system. The following table summarizes the decomposition of Functions to specific items/proxies in order for the later to be used to develop a detailed set of indicators, for monitoring and assessing the PHC system.

Function	Subfunction	Dimension	Items/Proxies
STEWARDSHIP		Policy Development	PC policy priorities
		Professional development	(Re)accreditation system for PC
			Quality assurance mechanisms
			Laws and Regulation
		Conditions for the care process	Human Resources Planning
			Involvement of Professionals and Patients in the policy planning
		Conditions of Responsiveness	Patients' rights, complaints procedures

Function	Subfunction	Dimension	Items/Proxies
RESOURCE GENERATION		Workforce volume	Numbers and Density
			Role and organization of professionals
			Education in PC
		Professional Development	Scientific development and quality of care
		Professional Morale	Job Satisfaction
		Facilities and Equipment	Medical Equipment
			Other Equipment
FINANCING and INCENTIVES		Healthcare/PC financing	PC funding
		Healthcare expenditures	
		Incentives for professionals	Expenditures on PC
			Entrepreneurship
		Financial access for patients	Mode of remuneration
			Cost sharing/co-payment for PC
DELIVERY OF CARE	ACCESS TO SERVICES	Geographical access	Distance to PC practice
			Distribution of PC physicians
			List size
		Organizational access	PC provider workload
			PC outside office hours
			Home visits in PC
			Electronic access
			Planning of non-acute consultations
			Timeliness of care
		Responsiveness	Service aspects
			Clinics for specific patient groups
	CONTINUITY	Informational continuity	Computerization of the practice
			Medical records
		Longitudinal continuity	Patient lists
			Patient habits with first contact visits/referrals
		Interpersonal continuity	Endurance of patient–provider relationship
			Patient-provider relationship
	COORDINATION	Cohesion within	PC practice management
			Collaboration among general practitioners/family doctors
			Collaboration of PC physician with other primary care workers
		Coordination with other care levels	Referral system/gate-keeping
			Shared care arrangements
	COMPREHENSIVENESS	Practice conditions	Premises, equipment
		Service delivery	Medical procedures
			Preventive, rehabilitative, educational activities
			Disease management
		Community orientation	Practice policy
			Monitoring and evaluation
			Community links
			Professional skills Technical skills

It is apparent from the above that to assess any PHC system, taking into account all its complexity, information should cover different levels, as well as include both providers and users of the PHC.

2.2   Primary Care performance Assessment in Europe

The European Commission taking into account the need for modern, responsive and sustainable health systems, set up multidisciplinary expert panels to provide insights and advice on effective ways to invest in health. Acknowledging the importance of PHC in the overall Health Care System, one of the Expert Panels focused on Tools and Methodologies for Assessing the Performance of Primary HealthCare (EXPH, 2017). The report comprehensively presents recent advancements in the field and proposes a set of guidelines to the European Commission.

In particular, the report builds on the Donabedian (Donabedian, 1988) framework for HC systems' performance assessment, which allows multiple dimensions to be addressed. According to this framework, there is a causal relationship between Structure, Processes and Outputs. Structure refers to the human and material resources, including their organizational structure. Processes denote the actions in the real world for receiving and giving care, such as the patients seeking care and the health professionals diagnosing and recommending a treatment. Lastly, outcomes refer to the effects of the HC system in the health status of the population, including knowledge, patient satisfaction and changes in patient behaviour.

De Maeseneer and colleagues (De Maeseneer *et al.*, 2003) further developed the Donabedian framework anchoring the structure onto the overall substrate. According to De Maeseneer and colleagues, the structure includes the health system, but also societal factors (morbidity, socioeconomic structure etc), and individual factors (biophysical statues, knowledge, skills, attitudes etc.). Similarly, their framework goes into more detail concerning the processes and includes adequate communication, medical decision making, and management of care. Finally, following the developments in the field, outcomes shift form problem-oriented to goal-oriented, i.e. associated with quality of life and not changes in symptoms per se, or results of medical tests.

Following the above rationale, De Maeseneer and colleagues and EXPH, propose a system that would collect and take into account a. medical/professional evidence (evidence-based practice, though also including co-morbidity) b. contextual evidence (how to treat a patient in a specific setting), and c. policy evidence (to shift perspective from isolated clinical cases to the population perspective).

It should be noted that the De Maeseneer et al. framework has been utilized by some very prominent Primary Care Assessment endeavours, such as the PCAT by Johns Hopkins University (Leiyu, Starfield and Xu, 2001) as well as the PHAMEU (Kringos *et al.*, 2010) and QUALICOPC projects (Schäfer *et al.*, 2011).

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Based on the above EPXH suggests the following dimensions and comparative indicators for the assessment of PHC.

Domains	Primary Care Dimensions	Comparative Key Indicators
Universal and accessible	• Population covered by PC services • Affordability of PC services • Geographic availability of PC services • First-contact accessibility; accommodation • Timeliness and responsiveness of PC services (e.g. PC consultations)	• % of the population fully covered or insured for PC costs and medicines prescribed in PC • Total expenditure on PC as % of total expenditure on health • Amount patients have to pay for a GP/PC consultation and amount reimbursed • % of patients who rate GP/PC Team care as not very or not at all affordable • Difference between region, province or state with highest and with lowest • GP/nurse/social worker/… density • Average number of days waiting to see a GP/PC provider when confronted with a health problem • Access to pharmacy services 24/7 (number of pharmacies providing on-call or night duties) • Are there home visits by community pharmacists available?
Integrated	• Integration of public health services and approach in PC: e.g. community-oriented primary care • Integration of pharmaceutical care in PC • Integration of mental health in PC • Integration between PC and social care	• Extent to which GPs/PC teams carry out health promotion and prevention activities such as: promoting healthy diet, physical activity, reduced alcohol intake and smoking cessation; testing for sexually transmitted diseases; Screening for HIV/AIDS; Influenza vaccination for high-risk groups; cervical cancer screening; breast cancer screening; cardiovascular risk assessment. • Extent to which mental health is addressed as part of routine consultations including; improved detection and treatment of common mental health problems and appropriate referral for specialist therapy and treatment • Is there a structured cooperation between PHC and social care? • Does the pharmaceutical care integrate the contribution by GP/community pharmacist/nurse e.g. through an integrated pharmaceutical record? • Pharmacists documented contact with the prescriber concerning identified drug-related problems in an individual patient/1000 drug-related problems identified • Read and write access to shared electronic patient records by community pharmacists

Domains	Primary Care Dimensions	Comparative Key Indicators
		• To what extent are disciplines like occupational therapy, physiotherapy, speech therapy, integrated in PC Teams? • Do PC professionals share aims and objectives with professionals from other settings of care? • Is there an inter-professional integrated electronic patient record in place?
Person-centred	• Person-centred care, shared decision-making, focusing on the • "life goals" of the patient • Patient-provider respect and trust; cultural sensitivity; family centred care • Consider patients/people as key partners in the process of care • Maintain a holistic eco-bio-psycho-social view of individual care	• Duration of regular visit (minutes) of different types of providers • % of patients who rate that they i) trusted the GP/nurse/social worker/...; ii) were involved in shared decision making; iii) were satisfied with PC visit • Patient-related experience measures (PREMs) and Patient-related outcome measures (PROMs) collected through a continuous survey of patients • Do patients have access to their electronic health records?
Comprehensive and community oriented	• Comprehensiveness of services provided (e.g. health promotion, disease prevention, acute care, reproductive, mother and child health care, childhood illness, Infectious illness, chronic care (NCDs...), mental health, palliative care) • PC takes into account population and community characteristics • PC is an integral part of the local community	• Extent to which patients visit a GP for first-contact care for specific health conditions; people with a first convulsion; suicidal inclinations; alcohol addiction problems. • Is FP/GP the only medical discipline in PHC? • Are there activities related to Community Oriented Primary Care? • Is there palliative care at home organised?
Addressing personal health needs (provide high-quality PC)	• Quality of diagnosis and treatment in PC for acute and chronic conditions • Quality of chronic care, maternal and child health care • Composition of the inter-professional team • Health promotion; primary and secondary prevention • Patient safety • Advocacy	• % of infants vaccinated within PC against e.g. diphtheria; tetanus; pertussis; measles; hepatitis B; mumps; rubella; % population aged 60+ vaccinated against flu; HPV vaccinations • The range of scopes covered by medication reviews carried out by community pharmacists on specific patient groups (e.g. elderly patients >65 years, using >5 medications for chronic medical conditions, high-risk medicines) • The defined daily doses of antibiotics use in ambulatory care per 1000 inhabitants • Percentage of individuals with COPD or asthma who have had a lung function measurement during the last year

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Domains	Primary Care Dimensions	Comparative Key Indicators
		• Percentage of diabetic population with blood pressure above 140/90 mmHg observed in the last 12 months • Percentage of patients stating that the treatment contributed to the achievement of their life-goals
Sustained partnership with patients and informal caregivers	• Policies for coordination between professionals and informal caregivers • Policies to support informal caregivers • Strategies for patient engagement in care planning over time • Participation of informal caregivers/citizens in the development of PC services • Participatory power of patients/informal caregivers/citizens	• % of informal caregivers who receive support from primary care • % of patients reporting help from informal caregivers • Presence of organisations of informal caregivers in a community • Mechanisms for patient engagement in health care planning and decision making
Coordination of people's care	• Coordination between primary and secondary care: appropriateness of referrals, gatekeeping, integrated patient records, protocols for patients with chronic conditions • Coordination between primary and social care • Policies for respite care	• Is there a gate-keeping system (access to specialists through referral)? • Do patients need a referral to access the paramedical and nursing disciplines, to access social care? • Is it common for GPs to have regular (electronic) face-to-face meetings (e.g. at least once per month) with the following professionals: other GP(s); practice nurse(s); nurse practitioner(s); home care nurse(s); midwife/birth assistant(s); PC physiotherapist(s); community pharmacist(s); social worker(s); community mental health workers; medical specialists • Is the GP informed about patients' admission to hospital care?
Continuity of people's care	• Continuity of care (longitudinal, informational and relational) • The provision of care throughout the life cycle • Care that continues uninterrupted until resolution of an episode of disease • Role of PC in continuity and interaction with Emergency Departments	• Do GP-practices have a patient list system? Or another form of defined population? • % of patients reporting visiting their usual PC provider for their common health problems • % of GPs/PC Teams routinely keeping electronic clinical records for all patient contacts. • % of patients who are satisfied with their relationship with their GP/PC provider

Domains	Primary Care Dimensions	Comparative Key Indicators
		• Availability of 24/7 access to GPs, pharmacy services • Do PC practices receive information within 24 hours about contacts that patients have with out-of-hours services?
Primary Care Organisation	• Accountability: a formal link between a group of providers and a defined population (list-system, geographical area, ...) • Primary care payment and remuneration system (e.g. capitation, FFS, P4P) • The presence and strength of market forces in PC • Office and facility infrastructure (e.g. information systems and medical technology, Point-Of-Care testing) • Sufficient supply of GPS and other PC health professionals • Organizational components of coordination and integration: structure and dynamics (job descriptions and team functioning, management and practice governance, clinical information management, organizational adaptivity and culture (traditional command-and-control versus Complex Adaptive Systems Approach), team-based organisation • Volume and duration of PC provider consultations, home visits, and telephone consultations • Organisational aspects of referrals to medical specialists; referrals to specialised trajectories (e.g. in mental health, occupational health, etc.) • Quality of management • Primary care budget in relation to total healthcare budget	• PC payment system, revenues, and operating costs • Percentage of income of GPs through FFS, capitation, salary, P4P • Existence of indicators related to pathways of care that involve PC and other settings of care • Average income of 1FTE GP compared to average income of specialist; of a PC nurse compared to a hospital nurse • Quality control audits • Clear Vision and Mission statements of PC Teams • Existence of continuous quality improvement processes e.g. is there a structured periodic communication between local GPs and community pharmacists? • Is there an organisation at meso-level of the support structures for PC, e.g. in Primary Care Zones? • Is there an organisation at macro-level of PC e.g. a regional/national Institute for PC?
Human Resources	• Needs, supply, profile and planning of PC workforce • Status and responsibilities of PC disciplines; role of academic institutions and professional associations • Training and multidisciplinary skill mix	• Average number of working hours per week of GPs/nurses/pharmacists/social workers • Average age and geographical distribution of practising providers in PC • Total number of active GPs as a ratio to total no. of active physicians

Domains	Primary Care Dimensions	Comparative Key Indicators
	• Human resources management, including provider well-being, competence and motivation • Role of nurses and other primary care health professionals (task delegation and substitution, competency sharing) • Role of community pharmacists in PHC and pharmaceutical care • Role and function of managers • Income of PC workforce • Development of undergraduate and post-graduate specific • (inter-professional) training	• Total number of nurses active in PHC compared to the total number of nurses in PHC, secondary and tertiary care

Source : (EXPH, 2017)

3 PHC Assessment in Greece

3.1 A Comprehensive Literature Review

3.2 PHC Assessment in the Law 4486/2017

The Law 4486/2017 on the Reform of Primary Health Care is the main law regulating PHC in Greece (ΦΕΚ 115/2017, 2017). The law was enacted in 2017 and its provisions deal in particular with

- the Guidelines of PHC in Greece and the PHC Units,
- the Structure of the PHC system and the respective Human Resources, and
- the Administrative Organization and the e-governance of the PHC.

The law builds upon the general framework of the Greek National Health Care System, which in turn is based on the Alma Ata Declaration of 1978, and incorporates the dimension of person-centeredness in health care.

Within this framework, the law sets a number of provisions concerning the assessment and evaluation of PHC. In particular, the following sections are of importance:

In Article 7, the enacts the frequent and person-centred assessment of provided PHC services focusing on the

- human and physical resources of the health team (PHC professionals on a Local Level)
- processes of health services provision, focusing on transparency,
- assessment in qualitative and quantitative terms of the utilization of the provided services by the population
- effectiveness of the provided services.

The law also introduces the notion of social accountability of the PHC system that is operationalized through, public hearings, surveys, and other tools (article 20). In particular, the law stipulates Public Hearing Sessions of stakeholders and citizens, which take place every month and are attended by the Regional Coordinator of PHC, and a questionnaire available for all PHC receivers in order to express their level of satisfaction from the provided services. Moreover, it constitutes teams that are responsible for the analysis of these data and a development of a yearly report that analyses and summarizes the available data.

On a policy level, the law decrees a Committee for the Planning and Coordination of PHC. The Committee is responsible for coordinating and promoting measures, actions, and projects for PHC, as well as monitoring and evaluating them.

Last, but not least the law dictates the constitution of Academic PHC units that among other responsibilities, support the Ministry of Health and the Regional Health Districts on the PHC evaluation and assessment processes and schemes.

It is apparent that the PHC system monitoring, evaluation and assessment is an important part of Law 4486/2017 and that the provisions are to a great extent in accordance with the

proposed EXPH framework and the dimensions that it sets. Moreover, the law in force sets specific criteria about the social accountability of PHC, as well as the tools and methods with which it should be achieved. The SMiLe project and the current deliverable addresses part of the aspects concerning the social accountability scheme and is aligned with the rationale of the PHC law.

3.3 PHC Monitoring Indicators in the Management and Operational Intelligence System of the National Healthcare System

The Ministry of Health has developed a system for the collection and monitoring of data concerning the overall Greek National Health System, called BI – Health. BI-Health has a central role on the efforts for organizational, operational and financial modernization of the National Healthcare System, by simplifying the administrative processes, allowing a more efficient management of resources and more enabling detailed monitoring of financial indicators.

The BI-Health ensures the collection and analysis of individual and collective data from Public Health Care units and enables the communication of the necessary information to the management structure in order to strengthen the quality of healthcare services.

On a PHC level, the system allows the monitoring of the following measures.

Category	Sub-category	Indicator
Patients Data	Patients' statistics	Scheduled appointments Emergencies Just for prescription Other
	Laboratory tests/medical examination	Per category (number)
	Vaccinations	Mantoux vaccinations Vaccinations of infants, children, and adolescents, Flu vaccinations Pneumococcal vaccinations Tetanus vaccinations Other adult vaccinations
	Medical Actions	Nursing Microsurgery Dental Home Visits
	Patients' breakdown per insurance category	NOPHS (National Organization for the Provision of Healthcare Services) Other public insurance Health voucher Private insurance, etc.
	Patient cases	Management of Chronic patients (scheduled visit, referral to specialist, referral to Hospital, Home Visits, and referral according to the MD for interconnection) Management of Emergencies (Short term treatment, Referral to Hospital ER, Ambulance

Category	Sub-category	Indicator
		transfer, Home visits, and referral according to the MD for interconnection)
	Financial Data	Revenues (Subsidy by Ministry, Patients fee, Lab tests fee)
		Expenditures (Wages, Medicinal products, reagents, other, fixed costs)
	Patients in first level units	Patients
		Home visits
		Prescriptions
Personnel data	Medical Personnel	Category
		Planned positions
		Filled positions, etc
	Nursing Personnel	Category
		Planned positions
		Filled positions, etc
	Administrative personnel	Category
		Planned positions
		Filled positions, etc
	Non-medical scientific personnel	Category
		Planned positions
		Filled positions, etc
	Technical personnel	Category
		Planned positions
		Filled positions, etc
	Paramedical personnel	Category
		Planned positions
		Filled positions, etc
	Other personnel	Category
		Planned positions
		Filled positions, etc
	Personnel categorization	GPs
		In rural service
		In long term rural service
		Nurses
		Midwifes
	Personnel by specialization	

It should be noted, that even though the specific system was the first electronic integrated system, there is still a long way to be covered in order to develop a comprehensive PHC assessment system that is up to the standards proposed by EXPH. Currently, the BI – Health system is mainly focusing on the economic aspects of PHC, not taking into consideration dimensions as the comprehensiveness, continuity, person-centeredness, etc. Moreover, the current system is operational only in public health care units, thus not taking into account private GPs and PHC units. Additionally, only the prescription part of the Electronic Health Record (EHR) system in operation at present, which hinders the integration of an overall comprehensive PHC assessment system

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4 PHC Assessment Questionnaire from a Citizen/Patient Perspective

Recent developments in the field of HC systems in general and PHC systems, in particular, have highlighted the importance of person-centred approaches in informing reforms for improving services' quality. Meeting the expectations of the population is a major dimension of PHC performance. Not surprisingly a number of studies showed that patient satisfaction goes part and parcel with reduced healthcare spending(cf. Schäfer *et al.*, 2011; EXPH, 2017).

A number of studies, projects and tools have been developed in order to assess PHC delivery from the client/patient perspective. The following section focuses on two:

- The European Task Force on Patient Evaluations of General Practice Care (EURO-PEP) questionnaire (Grol *et al.*, 2000) and
- The QUALICOPC (Quality and Costs of Primary Care in Europe) project funded by the FP7 Programme (Schäfer *et al.*, 2011)

The above assessment tools have been selected, since both:

- are person-centred
- take into account the European Setting
- allow for cross country and inter-regional comparisons
- are applicable within the framework of the specific project
- are standardized and validated for Greece and Bulgaria respectively.

4.1 The EURO-PEP tool

The European Task Force on Patient Evaluations of General Practice Care (EURO- PEP) has developed an instrument in the late 1990s to enable the comparison of general practice care in Europe, focusing on the outcomes of GP PHC practice. Its aim was to allow cross-country comparison and inform decisions makers about possible actions to improve primary care in European Countries. Additionally to the above, EURO-PEP wanted to be a useful feedback mechanism to the professionals in PHC, as well as patient and consumer organizations, in order to motivate practitioners to improve professional performance. EURO-PEP's innovation was that it has been the first internationally validated standardised instrument specially developed to assess patients' evaluations and thus enabling a comparison across different countries. Particularly, the instrument focuses on patients' evaluations of specific aspects of general practice care (Grol and Wensing, 2000).

The questionnaire was first administered in 10 European countries by recruiting 36 practices in each country and a total sample of 1080 patients per country, showing that patients experience was generally very positive across Europe, with many similarities among countries (Grol *et al.*, 2000).

4.1.1 Participants and Methods

The questionnaire is administered by recruiting practitioners. For the purposes of delivering, the practitioners participating in the study were selected using a three-stage random sampling, selecting a country's region, followed by GPs selection and finally patient selection. Once the GPs were selected, GPs handed out the envelopes to all eligible patients, in consecutive order, at the end of the patient's visit. Patients were asked to send the completed questionnaires to the investigator directly. A maximum of 40 adult patients per practice were consecutively included from those who had visited the practice for a consultation. Written informed consent was obtained from all participants after the explanation of the study protocol. To minimize the influence of physicians and bias when completing the questionnaire, the patients were instructed to complete the questionnaire at home and mail it to the research centre, using the prepaid envelope.

4.1.2 The questionnaire

The questionnaire is fairly simple and easy to deliver. It incorporates questions specifically about patients experience avoiding using a simplistic rational model which operationalizes performance as being equal to the expectations minus the experience of patients. It is comprised of 23 questions that cover a range of issues such as the relation and communication of the GP, the medical care, the information and support, and the continuity and co-cooperation.

Since then the instrument was standardized and validated in other countries, including Greece (Lionis *et al.*, 2004) and in Bulgaria (Dimova, Stoyanova and Keskinova, 2017).

4.1.3 Comments about the relevance and applicability within the SMiLe project

The EUROPEP tool is a questionnaire that was designed especially for the assessment of PHC provided by GPs and Family Doctors. Even though it was culturally adapted, validated and standardized within the Greek and Bulgarian framework, its primary objective is not to assess the PHC system in general, or the PHC unit in particular, but rather the GPs. Moreover, as a tool lacks the methodological and theoretical depth of the QUALICOPC framework and does not incorporates the more recent advancements in the PHC evaluation field.

Nevertheless, EURO-PEP is much more compact and thus, the expected response rate is much higher than that of QUALICOPC. Similarly, it is much simpler, less ambitious, and therefore equally simple to analyse.

It must be noted that for the use of the EURO-PEP tool the agreement of both the original developers and the validators in the Greek language should be obtained.

4.2 The QUALICOPC tool

The QUALICOPC (Quality and Costs of Primary Care in Europe) project aimed to analyse and compare how primary health care systems perform in terms of quality, costs and equity. The project was carried out by an international consortium of institutes and aspired to show that primary health care is associated with better outcomes.

A total of 34 countries participated with 26 of them being part of the European Union. The rest were Iceland, FYROM, Norway, Switzerland and Turkey in Europe and Australia, Canada, New Zealand globally.

The project's objective was to collect strong evidence on whether the strength of PHC systems affects the overall performance of Health Care Systems and to identify and disseminate good practices. In particular, it comprehensively incorporated aspects of quality, equity and costs in PHC to develop an operationalized definition of a strong PHC system. Towards this end, the study utilized data sources from the System of Health Accounts (developed by Eurostat and OECD); the Health Care Quality Indicators Project (by OECD) and the PHAMEU database (develop by the project that was funded by the EU). Moreover, the project developed a set of questionnaires for

- i. the GPs,
- ii. the patients' expectations and
- iii. the patients' values, and finally,
- iv. the practice.

Following the De Maeseneer framework the GP questionnaire mainly focused on the structural aspects (e.g. economic conditions) and care processes (e.g. comprehensiveness of services of primary care), while the patient experiences questionnaire focused on the care processes and outcomes. The questionnaire about patients' values added to the experience one and allowed weighting its answers. The practice questionnaire tackled indicators concerning communication, opening hours, equity in access, etc.

Though all of the above questionnaires are relevant within the SMiLe project, the ones with the greatest interest for the project are the patients' ones. The surveys gather data primarily on PHC outcomes and secondary on processes and consists of two questionnaires: one about patients' experiences and one about patients' values.

4.2.1 Participants and Methods

Similarly to the EURO-PEP, the QUALICOPC project relied on GPs to distribute the questionnaire. For the project, the selection of GPs was made through random sampling procedure where possible or a multistage sampling procedure where not. The patient survey included patients above the age of 18, visiting a GP who was recruited for the study purposes and filled in the respective GP and practice questionnaire. Hence, in the study, there was a focus on patients who actually visited a practice and were provided with PHC services. This means that the outcomes of the survey represent the views of users of PC, rather than the

general population. 220 physicians were asked if a field worker could visit the practice to distribute questionnaires to patients who have consulted them. In practice, on a set date, the fieldworker visited the practice and asked patients to fill in the questionnaire in the waiting room, until a response of 10 patients has been reached. In each practice the fieldworker asked the first 9 patients, who are willing to participate, to fill in the experiences questionnaire and the 10th patient to fill in the values questionnaire. For countries around a million inhabitants, 120 questionnaires were, gathered, while for less populated countries 80 questionnaires were gathered(Schäfer *et al.*, 2011).

4.2.2 The questionnaire

The QUALICOPC survey scheme is much more complicated and elaborated than the one from EURO-PEP. The patient's experience questionnaire has 55 main questions. The questionnaire assesses the patient's background, the continuity, the quality, and the accessibility of care, the equity in access and treatment, the coordination, the comprehensiveness of services, and finally, two questions are related to avoidable hospitalization. The patients' values questionnaire has 28 main questions and addresses the patients' background, the importance of certain aspects of care, and the communication between the GPs and the patients. The dimensions assessed are consistent with the EPXH framework of primary health assessment and therefore QUALICOPC is a tool aligned with the developments of PHC assessment in the European Commission Level.

As in the EURO-PEP case, the QUALICOPC questionnaire was validated and standardized for Greece and Bulgaria and therefore it can be operationalized in both countries (Georgieva *et al.*, 2017; Lionis *et al.*, 2017).

4.2.3 Comments about the relevance and applicability within the SMiLe project

The QUALICOPC tools are part of an integrated system for the overall assessment of PHC. In this respect, the QUALICOPC could provide valuable insights into the PHC system in the CBA, both from the aspect of the health professionals and from the aspect of the patients. As a framework and operationalized tool it is much more sophisticated, elaborated and up-to-date with regard to the EURO-PEP tool. Moreover, it fits very well with the existing legal framework and the aspirations of the SMiLe evaluation platform, since it takes into consideration the multiple aspects and players within the PHC system. Therefore as a performance evaluation scheme, QUALICOPC can be a valuable tool in the hands of decision makers.

On the opposite side, QUALICOPC is a long questionnaire that needs much more time for its completion, both for the case of patients' experiences and the case of values. The questionnaire is also more detailed concerning the background of the patient which also might lead to lower response rates.

It must be noted that for the use of the QUALICOPC tool the agreement of both the original developers and the validators in the Greek language should to be obtained.

Summary of Key Points of the two patients based PHC assessment tools

	EURO – PEP	QUALICOPC
Cross Country	Yes	Yes
Standardized in	Bulgaria and Greece	Bulgaria and Greece
No of questions	23	55 and 28
Development	1990s	2010s
Integration with EU commission guidelines	No	Yes
Multilevel PHC Assessment	No	Yes

5   Conclusion

PHC systems reform is one of the priorities concerning the investment priorities in a European level. Consequently the methodologies and tools for the evaluation of PHC systems strength, effectiveness, and effect are in the centre stage in the field of health policies.

Nevertheless, PHC performance evaluation is a laborious and complicated endeavour. Any methodology for the assessment of PHC needs to take into account its multiple dimensions and develop a toolkit that addresses it in its entirety. In this respect, PHC evaluation should not just consider the process of delivering care, but also structural characteristics of the PHC system (e.g. the organization of the PHC system, the competences of Health-care providers, the societal background aspects etc.), and recent developments on output indicators that focus on the quality of life/functional aspects. Similarly, survey data should include both sides of the healthcare system i.e. healthcare providers and patients.

Within this framework the scope of the current deliverable is to:

- propose a methodological framework of the analysis and evaluation of PHC services from the citizens/patients and
- develop a relevant and applicable questionnaire for the assessment of PHC by the receiving population.

This endeavour is in line with the provisions of Law 4486/2017 that regulates the public site of PHC provision in Greece and could prototype a scheme for the application of such a system in the whole country.

Taking into consideration the above, and based on the literature review, two frameworks for the assessment of PHC systems were presented. These frameworks take into account the special characteristics of PHC in Europe, as well as the differences between countries. While both frameworks may be elaborated and/or adjusted for the CBA, they constitute a solid basis for a person-centred PHC evaluation scheme.

Additionally, two questionnaires are proposed in order to asses PHC provision. Similarly, the proposed questionnaires take into consideration all the special characteristics of the CBA, the legal framework, and the developments in the field. Each questionnaire has its specific

strengths and weakness since they vary in their applicability and relevance. Nevertheless, they could both function as a jumping stone for a more comprehensive system for monitoring, evaluating and assessing PHC provisions on both sides of the CBA.

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