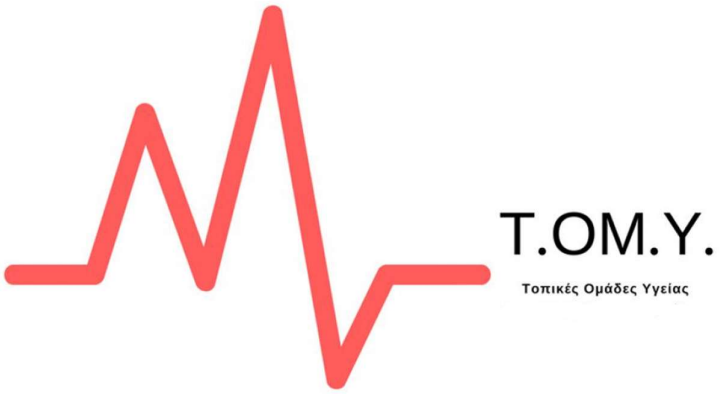
NRSF EXECUTIVE AGENCY - MINISTRY OF HEALTH

«Evaluation of the Operation of the Local Health Care Teams (TOMY)»



Executive Summary of Conclusions and Recommendations

CONDUCTED BY

CMT Prooptiki
CONSULTING MANAGEMENT TRAINING

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1. Introduction

This project of the "Evaluation of Local Health Care Teams Care - TOMY" is carried out within the framework of the co-financed by the European Structural and Investment Funds project "Operation of the Local Health Care Teams (TOMY)". The NSRF Executive Structure of the Ministry of Health (EDEYPY)) is required to and is implementing the subproject of the "Evaluation of the Local Health Care Teams" OPS code 5008040, in accordance with the special condition for the co-funding of the pilot.

The establishment and operational framework of the Local Health Care Teams (TOMYs) is institutionalized by the 4461/2017 law in the logic of implementing the role of the Family Doctor who functions as a main member of the team. The purpose of the Team as well as the duties of its members are specified by law 4486/2017 and the Γ1α/Γ.Π.οικ.87406 Ministerial Decision. The TOMYs provide PHC services within the National Health System and are administratively subject to the relevant Regional Health Authority (YPE), through their Reference Health Centres (RHCs). The mission of the TOMYs, according to the Γ1α/Γ.Π.οικ.87406HR, is to *provide free, universal, appropriate, effective, efficient, quality and anthropocentric primary health care to the registered population, with an emphasis on Community actions in the general population including vulnerable population groups.* According to Article 106 of Law 4461/17, their work concerns the provision of health promotion, prevention, diagnosis and treatment services to the population of their area of responsibility, which corresponds to 10,000-12,000 inhabitants.

The development of TOMYs began in December 2017. They were initially funded through 5 NSRF "Public Sector Reform" (PSR) Operational Programme (OP) acts, co-financed by the EU under the general title "Operation of Local Health Care Teams for the Restructuring of Primary Health Care" that aimed at the development of 239 TOMYS across the country. During this stage, the pilot operation of the TOMYs was co-financed for a period of up to 11 months. Since November 2018, the co-financing of their operation was gradually transitioning to the OPs of the thirteen (13) Regional Authorities (RA's). Co-financing of the operation of the TOMYs continues in the OPs of the Regional Authorities for 36 or up to 48 months, approximately until 2023.

The composition of TOMYs was designed in the logic of a modern multidisciplinary health team, consisting of: (a) General Practitioners, Internists and Paediatricians as the medical specialties most relevant in supporting the role of the Family Doctor for the adult and minor population respectively, (b) Nurses, (c) Social Workers, (d) Health Visitors, (f) Administrative staff.

The TOMYS, according to **Γ1α/Γ.Π.οικ.87406 MD,** "operate as family medicine teams, with a registered population of responsibility and are intended to provide health care. The tasks of the TOMYs are defined, primarily, on the basis of (a) promoting the health of the population they cover, with an emphasis on disease prevention and health education; (b) the development of interventions and actions to promote health in the family, workplaces, school units and in general across the community in cooperation with social care and community bodies, etc., (c) prevention, risk assessment and management of transmitted or non-transmitted diseases in population groups in cooperation with public health services, (d) the systematic monitoring of the health of their population of responsibility, in the TOMY premises and at home.

In this strategic context, these newly created structures, while establishing the family doctor, they aim to provide free access to primary health services for all citizens. In other words, they follow the Beveridge model, which concerns universal population coverage, including both the uninsured and the insured population of the country. This new scheme aims to transfer the PHC services, to structures or health professionals who provide outpatient services. The achievement of the above transfer of services has a dual role, namely the provision of health care to meet primary health needs in the local community and the restructuring of the health care system, with a view to its optimal functioning and the decongestion of hospitals.

An additional important element, originally introduced by Law 4238/2014, was the institutionalization of the Multi-Dynamic Health Centre (HC), as well as the Individual Electronic Health Record (IEHR) of the citizen. In this Law, the Family Doctor and the Health Team were again mentioned. In this context, the above conditions attempt to reshape Law 4486/2017, which allows the integration of Regional Clinics, multi-purpose Regional Clinics, Special Regional Clinics and Local Clinics into a structure that of the Local Health Units that will act as decentralized units of the Health Centre. Also, the clear definition of the responsibilities of the Family Doctor, the establishment of the operation of the IEHR and the implementation of clinical directives and protocols appear to operate in a direction of reshaping the operating framework of the NHS and the health system as a whole, where the services are organized and operate, in accordance with the principles of free universal health coverage of the population, equal access to health services, special care for vulnerable and vulnerable social groups, among other things.

This project focuses on the evaluation of the operation of the TOMYS, but the relationship and interaction of its implementation with the other pillars of the PCH are also explored.

2. Objectives of the evaluation

In the context of the public sector reform of the period 2016-17 for the provision of PHC services, the purpose of this project is to assess the progress of the implementation of the intervention "Operation of Local Health Care Teams (TOMYs)" and its effectiveness in relation to its priorities and expected operation in the context of the PHC.

In particular, the evaluation assesses the extent of the contribution of the design and implementation of the intervention to the Health System and the degree of achievement of targets in accordance with the funding. The study assesses the key evaluation parameters related to the implementation of the TOMYs project, effectiveness, relevance, synergy, contribution to the Ministry of Health's PHC policy and its complementarity with other actions and sectoral policies and planning.

According to the declaration and the subsequent contract, the evaluation is based on two strands: Part A: Interim Evaluation of the project "Operation of the TOMYs" and the logic of the implementation of the institutional framework and the achievement of the thematic objectives of the NSRF, and Strand B: Evaluation of the project in the environment of the PHC policy at national and international level, the adequacy of the institutional framework , convergence with national policies and updated objectives.

3. Evaluation Methodology

For the evaluation of TOMYs, the evaluation methodology used was based on logical models that explain the theory of a developmental intervention or a set of interventions (theory-based evaluation).

The development of the theoretical logical model was mainly based on the institutional framework for the development of the TOMYs, in the context of the PHC reform with main sources the Laws 4461.2017, 4486/2017, **Γ1α/Γ.Π.οικ.87406 ΥΑ** and their updates/specializations, as well as in the guidelines of the World Health Organization (WHO) and the European Commission (EC) for the organisation and development of Primary Health Care and in international and Greek literature. To develop criteria and indicators for answering the evaluation questions and conduct the evaluation, guidelines and proposals for the development and evaluation of PHC systems by the World Health Organisation and the European Commission were taken into account.

This project follows a modular system of individual methodologies aimed at answering the Evaluative Questions, according to the available data of the recent operation of the TOMYS under the defined institutional framework. In particular, information and evidence was utilized from : a) desk research, b) the gap analysis of the institutional framework, c) health policy relevance matrix, d) analysis of secondary data from the information systems and databases (Ministry of Health BI, EOPYY, EDEYPY, IDIKA), e) primary data from quantitative and qualitative surveys, which were analysed and categorized, taking into account the limitations that arose due to the nature of the data.

Specific evaluative questions have been identified at the project's procurement stage. The evaluative questions raised by the Contracting Authority are intended to assess the progress of the reform, based on the initial design of the Ministry of Health. At the same time, they aim at assessing the model in terms of its suitability, synergy and in relation to the needs of health care services in the wider context of the public health system.

According to the methodological approach, the evaluative questions have been specialized in relevant criteria and indicators. The synthesis of secondary data and the results of primary surveys and qualitative research data, with bibliographical references, contributes to the responses to the Evaluative Questions.

4. Key findings of the Evaluative Questions

The table below presents the key findings resulting from primary qualitative and quantitative surveys, as well as from the analysis of secondary data. In the annex to the Final Evaluation Report, a more comprehensive table of the project's findings per evaluative question is presented.

Key findings of primary research and analysis of secondary data
Efficacy of TOMYS • Of the 239 TOMYS envisaged, 127 (53.1% of the original target) have been set up and are operational. • Target of population covered by TOMY (TOMY PSR index) was 1,613,250 citizens out of 239 TOMY, the development of 127 TOMY implies a covered population of 857,250 citizens (53.1% of the original target) • Capacity to provide Family Medicine services by TOMY based on 31/12/2019 staffing: 650,250 citizens (7.9% of the urban population)   ○ 48,8% of the capacity based on full staffing of 127 TOMY (1,333,500) • Population of responsibility: 1,270,000 - 1,524,000 • 411. 213 Registered citizens in TOMY benefiting from services from the Local Health Team
Coverage of population needs by FDs • In total in the country there are 1063 FDs within TOMYs and contracted by EOPYY, of which 746 (70%) are contracted with EOPYY and 317 (30%) working in the TOMYSs • About 21% of the population is covered by FD services, 15% by EOPYY-contracted and 6% by TOMYs (TOMYs target urban population). • TOMY FDs cover 8% of the urban population
Coverage of posts (up to 31/12/2019 in terms of positions advertised for 239 TOMYS) and degree of satisfaction of TOMY staff • 26.5% of TOMY vacancies covered • 1/3 of Health and Social Workers' Visitor Positions • Satisfaction of workers with working conditions and wages, less satisfied regarding the possibilities for professional development
Services and activity provided in the community • 83.6% of activities in the community were health prevention and promotion related • 69.9% of community-based activities related to adult vaccinations • 58.9% of community-based activities chronic disease management • Services more frequently provided by TOMYS: (a) Promotion of Population Health, (b) Planned adult and child health care, (c) Elderly health care, multi-morbidity monitoring, (d) Development of interventions and actions to promote health in the community • Services in need of further development: (a) Home-based healthcare, (b) Post-hospital care and rehabilitation
Operation of TOMYs • Main reasons citizens visit TOMY (according to the opinion of their staff): Scheduled visit (68.7%), Prevention and screening (64.4%), Vaccination (63.7%), Prescription of time treatments & referrals (58%) • Prescriptions (according to IDIKA): **542,552** in **2018** and **1,321,312** in **2019** • Referrals for Clinical Tests: **155,337** in **2018** and **342,960** in **2019**

Adoption and implementation of modern health policies and tools of the NHS

- 89% FDs and Coordinators report using the 13 General Medicine Guidelines/13 PHC Protocols
- 77% of those registered in a TOMY FD have a IEHR activated
- 54% of G. Doctors say they always use IEHR during a first visit.
- "Handbook for the Operation of Local Health Groups" prepared by the Planning & Coordination Committee for Primary Health Care was distributed to TOMYs by the RHAs

TOMY integration with the Local Health Network according their members' reports

•Frequent interconnection: 77% with Reference HC, 75% with other community bodies, 66% with other TOMYs, 64% with the Regional Health Authority (RHA)

•Less frequent interconnection: 30% with Primary Health Care Sector (ToPFY) coordinators, 28% Dependency treatment structures, 22% EOPYY Physicians, 20% Rehabilitation Structures

5. General conclusions

The "Operation of Local Health Groups (TOMY)" is a project co-financed by the European Social Fund, through the NSRF, implemented within the framework of the 2016-2020 NSRF Reform, in accordance with the strategic planning of the Ministry of Health, as reflected in the National Health Strategy and Actions of the Health Sector in the NSRF 2014-2020.

The institutional framework for the operation of TOMYs is mainly covered by Law 4461/17 (Article 106 Local Health Care Teams) and Law 4486/17 (Reform of Primary Health Care). Central pillars of the Reform are (a) the Primary Health Care Sectors (ToPFY), (b) the institution of the Family Doctor, (c) the Local Health Units (which do not identify with the Local Health Care Teams) and Local Health Care Teams, and (d) the Individual Electronic Health Record (IEHR).

This evaluation therefore focuses on the operation and the progress of the implementation of the Local Health Care Teams within this PHC framework. As their operation is part of the Reform, the progression of their implementation is interlinked to a degree with the development of the other central pillars. In this logic, the extent of their development is also investigated, without extending the project to the overall evaluation of the PHC system.

According to the available data collected in accordance with the Consultants' methodological approach, detailed in the relevant chapter, the following conclusions are drawn:

5.1. The service model

5.1.1. Operation/Model of multidisciplinary Teams and recording of the health needs of the population

Innovation of the 2016/17 PCH Reform is the strengthening of the Health Group[1] in the context of holistic care following WHO guidelines[2]. The duties and responsibilities of the team members, namely, the family doctors for adult and children's population, the nurse, the health visitor, the social worker and the administrative staff are defined. It is also stated that to ensure the continuous improvement of the services provided and to satisfy the health service recipients, an assessment of the quality of the services provided by the Health Group is carried out at regular intervals. At the same time, the importance of obstetric care (Art.12) and the role of the health visitor in promoting health (Art.13) in the Local Society are being upgraded.

The operation of the multidisciplinary Health Care Teams of the TOMYs in accordance with the National Health Strategy and the legislative framework that defines them, aims at the universal and equal access of citizens to health services. Emphasis is also placed on health education, prevention and comprehensive care, in accordance with WHO principles.

According to the employee's assessment, TOMYs address the majority of the health issues of the citizens served without referral to a qualified physician or other health level following the WHO's requirements to reduce the use of specialized health services in the Outpatient and Emergency Clinics of Hospitals.

[1] The health team is created by Law 4461/17) Article 106
[2] Following the philosophy of holistic care, Law 4486/17 provides for the establishment and operation of Central Diagnostic Laboratories (CCPs), Special Care Centres (CEP) (note that there is no provision of physical therapies at home) and Dental Group (Art.8-10) which ultimately did not work.

According to the Astana Declaration (2018) the development of health services takes place within an integrated and person-centred system of coordinated services between levels of health provision and in cooperation with social welfare services and community bodies. The model of the interdisciplinary family medicine teams of the TOMYs is moving in this direction in accordance with the legislative framework that defines it. In addition, by recording the needs of the local population and mobilizing community stakeholders, TOMYs are expected to develop targeted health promotion and prevention actions in the community.

As emerging from quantitative and qualitative research and in particular from the focus group, shortcomings in the development of the framework for the organisation of health and social welfare services at the level of networks and sectors of PHC, in accordance with the integrated model promoted by the WHO, create obstacles to the development of cooperative action between the TOMYs and the other officers and structures of the PHC at local level, as analyzed in following chapters. The interdisciplinary teams of TOMYs appear to attempt to compensate for these shortcomings by taking initiatives at the level of individual care and developing actions in the community. To achieve this they seem to exploit the dynamics of the group, the culture of extroversion and holistic approach promoted by the model and the degree of autonomy to meet the needs of their population of responsibility, which according to the workers themselves also results from the absence of a strictly standardized framework. At the same time, weaknesses and gaps in the methodology of recording and monitoring the needs of the local population through the exploitation of digital systems and tools, as well as the absence of such targeting, do not enhance the full utilization of the capacity of intervention to holistically meet the needs for prevention and continuous and coordinated care of the citizen and the development of more targeted actions in the community.

Quality data (interviews & focus group) demonstrate that the introduction of TOMYs into the local network of services was implemented rapidly and in a wide range of territory without the necessary preparation and participation of the structures of the existing system. A climate of competition is evident between TOMYs and the Reference Health Centres. Through qualitative research analyses this is mainly attributed to issues of unequal (according to the opinion of HC representatives) distribution of human resources and work culture between the two services. Opposite views are also expressed regarding the possibility of co-location of TOMYs with the HCs. Mainly on the part of TOMY employees (and DYPE representatives) concern is expressed about the possible loss of the relative autonomy and potential for more creative extroversion for TOMYs. In contrast, a large proportion of HC Scientific Leads argue that this would lead to a more efficient functioning of the Teams, with some views supporting the need to integrate them into the HC workforce.

The operation of multidisciplinary teams also contributes to the promotion of a culture of health promotion mainly through the provision of health education activities in the community. More moderate but positive is the relative view of the representatives of the DYPEs (Regional Health Authority Management). In contrast, a large proportion of Health Centre Scientific Leads, although they agree with the positive role of TOMYs in the development of family medicine services, they seem concerned about achieving a reorientation towards prevention. This concern also emerges from evidence from qualitative and quantitative studies. To an extent, the challenge is based on the lack of established strategic objectives to improve population health and broadly acceptable indicators of measuring and monitoring actions to prevent and improve the health of citizens.

The model of the multidisciplinary family medicine team of TOMYs that provides PHC services and outreach activities according to qualitative research, but also from staff reports, appears to be recognized and utilized more and more effectively by local citizens as the penetration of TOMYs in the local community increases. From the citizens' perspective, however, this model is still not fully understood according to qualitative research data. Particularly those directly involved in its implementation are enthusiastic about the innovation of this approach, but there is still confusion around the role of the family doctor and the team.

In this context, it is evident that Local Health Care Teams add value to the possibility of developing initiatives, based on the capacities of their members and mainly because of their different multidisciplinary internal coordination model. The organisational and institutional integration of their operating framework can contribute to the achievement of the provision of all the envisaged services[3] in a person-centred approach. The definition of a procedural model of cooperation with the Local PHC Network also enhances the continuity of care for the citizens and at a wider level the possibility of more targeted promotion and prevention actions in the community.

5.2. Organization and operation of the TOMYs within the framework of the PHC in accordance with the institutional framework

Institutional framework

The institutional framework for the operation of the TOMYs was envisaged to be completed through a central set of articles, which refer to the central law, but also on the basis of a series of additional regulatory acts, in the form of Ministerial and Joint Ministerial Decisions (YA & KYA). The adoption of these YA and KYA would have provided important elements and parameters for the completion of the institutional intervention of the PHC, but some of them were not completed and were therefore not adopted, preventing the necessary institutional integration. As a result, many organisational and operational features of the new institution cannot be sufficiently completed in practice and at implementation level to enable this new project as a whole to be based on the logic of an integrated institutional framework.

The objective of Law 4486/17 according to the explanatory memorandum is: (a) ensuring access to health services for the entire population without discrimination, (b) the economic protection of the population against the risk of out-of-pocket health expenditure; (c) the social control and accountability of PCH service providers and (d) ensuring the protection of the rights of health service recipients. This aim is in line with the principles of Alma Ata and the European Union on free and equal access to health services. On the contrary, there is a lack of specialisation in the General Definition of the PHC for services operating outside the structures/premises of health services. This degrades the overall objective of promoting the health of the population.

According to Article 3 of the Law 4486/17, PCH services are provided on two levels: (a) by local health **Units** (ToMY) or Local Health Care **Teams** (TOMY)[4], consisting of health professionals of PCH service providers, as well as contracted with EOPYY Doctors, (b) by the Health Centres [5] ambulatory care services (outpatient and specialized health care).

[3] see Section of Procedures and Human Resources
[4] See. Article 5 of Law 4486/17: they are new decentralised structures, regional of the Health Centres
[5] At least one Local Health Centre and each municipal unit are assigned at least one Local Health Unit.

The Local Health Units were not established, but the establishment of Local Health Care Teams proceeded, in accordance with the definitions of N 4461/2017, N 4486/2017 and Γ1α/Γ.Π.οικ.87406 MD as co-financed by the European Community Fund programmes. The introduction of TOMYs was an important attempt to operate the first point of contact of the citizen with the health system on the basis of a multidisciplinary approach.

The processing of the qualitative research data shows that despite the legislator's ambition and the incorporation of many WHO principles into the philosophy of the law, it is still incomplete in several respects: (a) changing the system's orientation towards prevention, health promotion and education, (b) strengthening the role of the FD and (c) making full use of TOMYs as multidisciplinary family medicine groups providing outreach activities. According to the findings, the Local Health Care Teams add value to the possibility of developing initiatives based on the capacities of their members and mainly because of their different internal coordination model. However, there is no complete demarcation of a Local PHC Network and the procedural model of cooperation with it, which enhances continuity in the care of the citizen as well as the possibility of carrying out targeted promotion and prevention actions in the community. Their pilot operation for a limited period, in conjunction with the announcement of jobs under fixed-term private law contracts, gave intervention a temporary character, according to quality survey analyses.

Administration

Organisation and coordination at Central Level

At central administration level, the responsibilities for the operational management of the project of TOMYs are shared between the Ministry of Health, the Directorate of PHC and the NSRF Executive Structure of the Ministry of Health, while the Regional Health Authorities are responsible for its implementation. Quality research reveals weaknesses in the coordination between these services, and the predominance of NSRF bureaucratic procedures over the implementation of the project.

In addition, the Committee for the Planning and Coordination of PHC, while initially showing considerable momentum, was gradually limited and contributed in part to the coordinated development of guidelines for the organisation of the PHC system and the integration of the TOMYs into it.

There is an evident gap that could be filled by a central coordinating body to monitor and strengthen the functioning of the TOMYs at a single level which systematically exploits both the experience of the teams and their members who have now gained the experience to indicate the strengths and weaknesses of the project in practice.

Organization and coordination at the level of the PHC Sectors

The legislation redefines the term Primary Health Care Sector (ToPHY) which is intended to include all PHC service providers. However, the full definition of these sectors, on the basis of their capacity for service provision, the geographical coverage area, the population coverage, the synergy procedures of the parties involved and the way in which their structures and functions collaborate, has not been completed.

The basic principles of coordination of services within the Sector are attributed to a multiparametric level (coordinating committees, Regional ToPHY Coordinators, TOMY Coordinators, Dentist

Coordinator, Midwife Coordinator, etc.), but the mechanisms and means of achieving coordination are lacking.

Research shows that the development of coordinating bodies and roles at ToPHY level is inconsistent. As a result, the appropriate collaborative relationships of an integrated PHY Network are not fully developed. According to DYPE representatives, Regional ToPHY Coordinators have been appointed to two of the seven RHAs, while half of TOMYs, according to the Coordinators, are subject to a ToPY committee with which they meet in the majority twice a year. Also an important issue is the performance of coordinating roles to PFY executives, who are invited to support it, on the basis of parallel tasks and without corresponding incentive in terms of pay. There are therefore shortcomings in the implementation of the organisational coordination system for local PSOs.

The institutional framework defining the fundamental elements of the definition and coordination of the PHC Sectors has been under-functioning. As a consequence, appropriate collaborative roles are not created at the level of the PHC Network. The absence of defined criteria for the formulation of the PHC Sectors and the Networks and the way for delivering integrated actions and strengthening the continuity of care of the population also plays an important role. According to the legislative framework, Primary Health Care services within the ToPFY are coordinated through a Management Committee and a Regional Coordinator. According to DYPE representatives, Regional ToPFY Coordinators have been appointed in two of the seven RHAs. Half of the TOMYs, according to their Coordinators, are subject to a ToPFY committee, with which they meet twice a year. An important issue is the appointment of PHC executives to coordinating roles in parallel with their regular responsibilities and without corresponding incentive in terms of pay. There are therefore shortcomings in the implementation of the organisational coordination system for local ToPHYs.

It also appears that the institutional framework defining the co-operation (functional and organisational interconnection) of the TOMYs with the reference HC has not been completed. As shown from quantitative and qualitative surveys, their organisational interconnection is limited to certain administrative parameters of the operation of the ToMY. However, it does not extend to coordinating the services provided and providing guidelines to meet the needs of the population.

In combination with the absence of means of measurement, monitoring and targeting, a framework is being developed that does not actively enhance the development and integration of TOMY and new services into a local PHC Network, with consequences for the citizen/patient within journey in the health system.

Objectives and Targets

The project's targets, according to the views of a large proportion of the survey participants, is very limited. It does not include ex ante measurable and commonly accepted objectives. The indicators for monitoring the project's activity are limited to the NSRF indicators and are not linked to broader strategic aims and objectives of a national and regional health policy. Therefore, the evaluation and assessment of the contribution of TOMYs to PHC cannot be easily, directly, uniformly, and accurately captured through directly produced and editable data.

In the same direction, epidemiological data and evidence are not available through national digital applications (Electronic Prescribing System and IEHR) to facilitate the development of outreach actions and local health policies.

The main assessment of the needs of the population was based on the broader finding of "increased unmet needs, health poverty after several years of fiscal adjustment and the inability of citizens to have equal access to health services". These factors may appear strong at country-wide level, but they do not appear sufficient in terms of geographical distinction and distribution of interventions for the universal strengthening of the PHC. In addition, there is no integrated methodology for epidemiological recording and utilisation of the health profile of the local population supported by the mapping and utilisation of its available (health)care provision resources in the reference sector.

The re-approach of targeting, in line with the views put forward in the focus group and the qualitative survey analyses, must take into account (a) the needs of the population, (b) existing resources in the community and (c) the scope of the project envisaged by the entire multidisciplinary team. In addition, the development of indicators should be supported by agreed methodologies and central systems of recording and monitoring.

Population coverage

According to the implementation decisions, the initial operation of the TOMY aspires to cover 20-25% of the population in the country (ADA: ΨΦΜ7465ΦΥΟ-Φ2Γ/09-01-2018) as the initial design of the Operational Programme aimed at the creation of 239 TOMYS throughout Greece. The objective of the operation of TOMYs could not be achieved. Today there are 127 TOMYS, i.e. 53.14% of the original target. The Regions of Thessaly and Epirus have the highest rates of achieving these objectives. In contrast, the lowest rates of achievement occur in the island Regions with the exception of the Region of Crete and more specifically in the Regions of South Aegean and North Aegean. The target for these areas was more limited from the outset, calculating the concentration of the urban and semi-urban population on the mainland.

The population of the country that has access to PHC services through the TOMYs is estimated at 1,270,000 – 1,524,000, (14-18%) according to the maximum population of responsibility of a TOMY (10-12,000 citizens) according to law 4461/2017. According to the target of the project of the operation of the TOMYS, the population covered by the services from the 127 operating teams amounts to 857250 citizens of urban and semi-urban areas based on an average population of responsibility. 53.1% of the initial 1613250 target is therefore achieved.

At the same time, however, the capacity for providing family medicine services from TOMYs is directly linked to its staffing levels in particular by FDs. Calculating the population responsibility of 127 TOMYs operating at the end of 2019 (according to their specialty), the capacity of 127 TOMYs to provide Family Medicine services on the basis of 31/12/2019 staffing is 650,250 citizens, 48.8% of the capacity based on 127 fully staffed with FDs TOMYs.

The number of registered citizens with TOMY FDs amounts to over 400,000 citizens at the end of 2019. According to the co-financing target, the target of people benefiting from TOMYs has been achieved by half (50%) and is steadily increasing, highlighting a positive response from citizens to the institution.

It is worth noting the non-systematic recording and evaluation of services within TOMYs and in the community by other members of the team other than doctors. To an extent this underestimates the added value of the interdisciplinary team towards covering the needs of the local population.

Political and Social Consensus on the Implementation of Reforms

The reform attempted failed to secure the necessary political consensus, the support of the social partners and health professionals, key players in the successful management of change. The political debate over the future of the TOMs, the confusion between groups and health units, accompanied by the temporary nature of the financing of the NSRF, have provided the TOMYs with a temporary character, effectively discouraging the attraction of professionals. While the ongoing uncertainty has intensified the staff turnover (mainly of doctors) to the private sector or to permanent jobs.

The strong reactions from the medical world were mainly based on low remunerative incentives for privately contracted physicians and the large population of responsibility in the logic of reaching the upper limit of earnings, according to views expressed by the focus group.

An important factor in the lack of consensus was the limited communication management of the effort which limited the dynamic support from the citizens themselves.

5.3. Processes and service integration

Who's (2018) objectives include "providing integrated services in an operational referral system between Primary and other levels of health care horizontally and vertically". The ultimate goal is to provide holistic and continuous care in an integrated health). The PHC in Greece faces over time multiple challenges and "pathogens" which according to the analyses of qualitative and quantitative research converge, inter alia, on the lack of coordination of PHC services, the operational interconnection between the structures and providers of public and private health services, but also the operation of a referral system.

In the case of TOMY and the upgrading of the services offered by the PHC, the issue of the absence of procedures and the performance of an organized environment for the management of care is strongly identified in a collaborative way and on the basis of the complementing of structures and professionals.

In addition to the absence of clear ToPHY mechanisms and PHC Networks, which is perhaps the primary starting point for the performance of integration procedures, the shortcomings in central and regional coordination exacerbate the problem.

Finally, the absence of a strong supportive digital environment for recording and monitoring care (such as integrated use of IEHR) also intensifies the problem of enforcement and application of procedures.

Services integration

Recognising the importance of a centralised referral system, an operational integration of the PHC structures was proposed in the context of the PHC Reform, through formal, standardised referral and communication procedures. The objective of a standardised referral system is the improvement of the system's efficiency, quality, and effectiveness in healthcare service provision, ensuring patients receive appropriate and well-coordinated care. Taking an additional step towards the provision of fully integrated and coordinated services to citizens, the institutional framework included collaboration with services beyond the responsibility of the Ministry of Health, such as social services are under the jurisdiction of the Ministry of Labour.

However, the institutional framework is not accompanied by an operational plan and specialisations beyond the patient referral. According to quantitative and qualitative findings from the study, standard referral procedures are not systematically applied, and no relevant digital functions have been activated. Consequently, the operational integration of the TOMYs with other structures in the PHC system and the wider NHS, Local Authorities and other community bodies varies. The analysis of the weaknesses of the organisation and coordination system is described in the section on the organisation and operation of the TOMYs.

The collaboration of TOMY members with bodies with which there is a robust institutionalised framework for cooperation is considered more satisfactory. The interconnection between TOMYs, Reference Health Centres and RHA appears to be more satisfactory, despite institutional ambiguities. The satisfaction of TOMY members by the interconnection with community services where there is no structured framework for cooperation (e.g. with rehabilitation services and dependency treatment structures) is limited. At the same time, quantitative research shows that there is no possibility of interconnection with family doctors contracted with EOPYY and to a lesser extent with other private sector service providers.

Also, the levels of interconnection between TOMYs and NHS hospitals are not satisfactory. TOMY members attribute this weakness to both organisational inadequacies and the lack of recognition of the coordinating role of the FD and the Team in the provision of health care in the community. In the absence of a comprehensive referral system, the connection of TOMY with the reference hospitals is characterized as one-sided[6]. Therefore, post-hospital care and required follow-up by the family physician do not have the envisaged continuity.

Regarding the actions in the community, as the TOMYs become more established, the number of community-based activities increases. The respective cooperation with the Health Centres and other local bodies (such as schools or the CAPIs) to implement these actions is also increasing. Cooperation with Health Centres is three times more frequent than with local government. Employees in TOMY recognize the support of the local community, despite expressing collaboration difficulties with infrastructure and premises. An indicative figure is that only 19% of TOMYs is located in a property provided by a Local Authority Organisation, while the inability to secure appropriate premises was one of the two most important reasons that led to failure in forming TOMYs, according to the study.

5.4. Human Resources

Doctors' Response to the role of the FD and staffing of the TOMYs

The main causes for not meeting the target for the number of TOMYS that operate and the population covered, according to quantitative and qualitative research, are (a) the limited response of General Physicians, Internists and Paediatricians to the vacancies for Family Doctor positions in TOMYs, and (b) the inability to find suitable buildings/premises to house the operating TOMYs.

Regarding the doctors' response to the vacancies in TOMYS, it is very limited, with about 1/5 posts having been filled at the end of 2019, according to the analysis of secondary data. Comparison with

[6] According to their responses, TOMY doctors do not receive the necessary information from hospitals on the outcome of referrals or the patient's discharge in the community and the pharmaceutical/therapeutic instructions provided. In their attempt to fulfill their role's obligations, TOMY family doctors report that they often resort to informal channels of communication and referring to monitor the patient's journey in the health system.

EOPYY FDs is not possible in the absence of available targets for the same period. Quantitative and qualitative survey results, according to doctors' opinion, indicate that the main causes why the positions remained vacant are the temporary nature of the institution of TOMYs (based on the financing of the project for up to 48 months) in combination with the exclusivity of the employment contract[7]. The lack of adequate incentives, both in terms of pay and in terms of professional development, play a key role in how *attractive* the available jobs are considered, as shown by both quantitative and qualitative research data on employees and the medical world. The lack of additional motivation for undertaking the TOMY Coordinator role was also highlighted by the satisfaction rates of the doctors in the role that related to their salary.

Staffing the other professional posts did present similar challenges, with the partial exception of social workers, who have the lowest satisfaction rates related to their working conditions within the TOMYs. TOMY coordinators reported that Social Worker appear to receive the lowest percentage of referrals/visits in comparison with the other member the team.

Complementarity of FDs in TOMY and EOPYY-contracted

EOPYY contracted FDs are double than those working in TOMYS, providing corresponding percentages of population coverage. Population coverage by TOMY and EOPYY FDs also differs in terms of target population groups, as one of the main objectives of the operation of TOMYS was to tackle poverty and the decongestion of hospitals through the strengthening of primary health care, in accordance with the institutional framework. In this context, the TOMYs were designed to provide population coverage in urban and semi-urban areas, while the EOPYY FDs are planned to provide complementary coverage at country level. With the availability of nearly 1,100 TOMY & EOPYY family doctors and many NHS and Health Centres understaffed and under-functioning, a clear deficit in the direction of universal population coverage is demonstrated.

Education and culture of the multidisciplinary team

The majority of TOMY employees, according to the survey responses, have consciously chosen to work in primary health care. The effectiveness of the team, also shown by the employee survey, is largely attributed to the dynamics of the relations between its members. Despite the members' intentions, for various reasons the development of team culture is obstructed. The function of the group of health professionals from different sectors is within the framework of the WHO guidelines on Primary Health Care and according to it (see ASTANA 2018) should be inspired by the spirit of equal cooperation, direct exchange of information, patient and citizens support and participation in common procedures and protocols.

According to representatives of the academic field, the current limitations of the education system are also identified in the unilateralism and isolationism of departments and schools that do not contribute to the creation of teams with the climate and orientation of cooperation. On the other hand, the dominance of an organisational medical model [8] excludes the other professionals within the Health Team from information (despite the explicit reference of the law to other health professionals) and participation in a joint provision of services. Antagonistic conditions also develop within the team, affecting the team's performance. Nevertheless, on a personal level the willingness

[7] The employees of TOMY work with a limited time and exclusive private employment relationship. This fact is a deterrent in attracting doctors and health professionals, according to the findings of quantitative and qualitative research.
[8] According to responses from the employee survey, it is important to add in the Local Health Team and health professionals such as psychologists, physiotherapists, midwives, or specialty doctors.

for communication is apparent. The teams with frequent inter-team communication, under the initiative of the doctor, the results are very positive.

Group members generally have a high level of education and have access to some targeted educational programmes, for example on the organisation of the PHC or on collaboration with dependency structures[9]. However, shortcomings in training occur around topics such as the use of digital tools or the person-centred approach.

5.5. Provided services

The analysis of primary surveys demonstrates that TOMYs appear to provide services to the local **population** that concern primarily **planned care** and secondly **prevention** and health promotion.

Prescribing treatments for long term conditions is the primary reason for citizens visiting TOMYs, at least according to available research findings. This tendency is understandable considering the lack of information in the population about the role of TOMY and FDs, as well as the absence of uniform procedures for citizens to access PHC services, as well as cooperation procedures between FDs and other specialty doctors. According to employees, as citizens better understand the role of the health team and the services available, they develop relationships based on trust and increasingly benefit from the scope of the multidisciplinary team. We should point out the significant increase in prescriptions (542,552 in 2018 and 1,321,312 in 2019) and outpatient referrals for clinical tests (155,337 in 2018 and 342,960 in 2019), a trend that should be studied over time (*note that 2018 was the year of inception and in 2019 the first year of full operation for most of the 127 TOMYs*).

Regarding interventions in the community, TOMYS appear to harness the enthusiasm of their human resources and their relative autonomy to promote health in the local community through outreach actions, as permitted by their staffing levels. All TOMYs provide to a certain extent community-based activity, manly focused on prevention and health promotion through health education or vaccinations. However, one in five is targeting vulnerable groups of the population (mainly people with cultural specificities, such as Roma, and people with disabilities). According to the employees, the absence of guidelines, beyond health education actions in schools, of a systematic method of capturing the health profile of their population of responsibility and of sufficient resources, seems to contribute to the limited development of more targeted programmes. Moreover, as depicted in the research, some circulars have been issued that provide relevant guidelines, concerning the organization of health education actions in schools[10] and the organization of pre-symptomatic medical examinations in the community[11], which, however, do not provide full coverage of the institutional framework and guidelines for implementation of actions in community. Therefore, the systematization of actions and the monitoring of their results is significantly reduced.

The TOMY employee survey also shows that all members of the team provide personalized advice on healthy lifestyles during their contact with citizens, which is also verified by the statements of the service recipients themselves. In addition, the FDs report that TOMYs frequently promote basic screenings, such as mammography, vaccinations, medication compliance and recommendations for

[9] The data related to the seminars of INEP, the program "Basic Principles of Organization and Operation of Primary Health Care" through EKDAA and a program for the processes of interdisciplinary team and networking with detoxification structures from KETHEA were taken into account.

[10] "Development - implementation by the Ministry of Health of actions and interventions of awareness and information of the student population in the context of Health Education at National Level, for the school year 2019 - 2020" ΑΔΑ: (ΟΝ8Α465ΦΥΟ-9ΟΝ)

[11] "Defining a single process for the development and organization of programs, interventions and actions of preventive medical examinations at the level of Primary Health Care in the general or specific categories of the population". (ΑΔΑ: 783Ι4665ΦΥΟ-ΦΧ6)

smoking cessation, in accordance with the instructions provided by the TOMY operating manual. The percentage of screening tests (PAP and Mayers tests) as well as vaccinations (mainly for children) prescribed by the TOMYS, are very low compared to country-wide figures. The share of TOMYs is equivalent to the low percentage of population the TOMY FDs cover. The overall share of vaccinations prescribed through TOMYs is small in comparison with the total country figures but is more focused on the adult population.

WHO (2018) objectives include striving to "avoid fragmentation and ensure a functional referral system between primary and other levels of care". The ultimate goal is to provide holistic and continuous care in an integrated healthcare system. The PHC system in Greece faces over time multiple challenges and 'pathogens' which according to qualitative and quantitative research analysis converge on the lack of coordination of the PHC services, functional integration between public and private health services and providers, and the operation of a referral system.

Gaps and shortcomings

Research in TOMYs, Health Centres and the Regional Health Authorities shows a requirement for additional services and community-based activity to meet the needs of the local population. In addition to the services not provided due to the understaffing of the TOMYS, there indication that additional services from other professionals, such as midwives, psychologists, and physiotherapists, is also required. A second category of services that are absent or not provided systematically is also identified. This refers to service gaps due to institutional or organisational inadequacies or lack of relevant guidelines. This category of services includes: (a) the provision of homebased health care, (b) the provision of integrated and continuous care to patients with chronic diseases, (c) post-hospital care and rehabilitation, (d) the provision of more coordinated services to citizens facing complex psychosocial issues such as addictions and finally (e) targeted actions towards vulnerable groups in the community.

Home-based healthcare appears to be one of the most pronounced gaps in the axes of required services provided by the TOMYs. According to qualitative research results, the absence of an approved and well-organised institutional framework, functioning as a "*protective cover*", is the main reason why this service is not provided by the vast majority of TOMYs. The strengthening of home-based healthcare and the provision of family medicine services can also be achieved through horizontal integration with specialized PCH and social care units in the community.

Shortcomings in the care of patients with **chronic and complex diseases** and **post-hospital care** need further development within the framework of an integrated PHC system. According to the focus group, in this context need to be addressed both the deficiencies of the Team regarding the lack of specialist training and their acceptance and promotion as fundamental parts of the system. Also, the inconsistent provision of rehabilitation and substance misuse services relates to the inconsistent availability of corresponding specialist services in all the PHC regional systems.

Capacity Development and the role of the Family Doctor

The Law emphasizes on the institution of the Family Doctor (see Art.6, 4486/2017) which provides comprehensive and continuous care to the individual, within the family and the community, with the

aim of preventing diseases and promoting health[12] . The legislator introduces the compulsory registration to the Family Doctor through the Electronic Individual Health Record (IEHR) establishing a referral system (see article 19) that faced significant obstacles to its implementation.

Regarding the development of the institution of the FD, there is no evidence of strategic planning for its geographical development. In cooperation with the Ministry of Health, according to qualitative data but not an official plan, Municipalities with increased socio-economic needs were selected for the pilot operation of TOMY. Similarly, the call for expressions of interest for the role of FD by EOPYY concerns the entire country. Therefore, the geographical development of the FD is a consequence of the response of doctors to the vacancies.

According to the available data of the information systems, the number of FDs working in TOMY or having an active contract with EOPYY at the end of 2019 amounts to almost 1100 doctors. 70% are EOPYY FDs and overall provide coverage to 21% of the country's population. TOMY's FDs covers 8% of the urban population (target population of the TOMY project intervention), that also has access to the services of the other staff that make up the health team.

A relative degree of complementarity appears as TOMY FDs appear higher concentration outside the main urban centres (and especially in the Regions of Epirus and Crete), while the EOPYY FDs are concentrated around the major urban centres of Attica, Thessaloniki and Thessaly.

For the universal coverage of the population, for example, in Attica, with the largest population concentration of 3,828,434 inhabitants, more than 1,500 adult family doctors and more than 200 [13] paediatricians would be required. Across the country according to ELSTAT's estimate the population over 14 years is about 9,766,447 and therefore the target would be over 4,000 adult Family Doctors (of General and Family Medicine or Internists) and over 600 Pediatricians[14].

The institution of the Family Doctor managed to gain ground despite the restrictive factors and weaknesses of the reform regarding the organisation and the provision of continuity of care for citizens. The importance of the role of the FD enjoys the general acceptance of those involved in the operation and the organisation of the PHC according to supporting evidence from the qualitative research. At the same time, it is consistent with the WHO guidelines. However, the parameter of the role of FD as a 'gatekeeper', as well as the compulsory registration to access to PHC services has not been systematically implemented, as also confirmed by the percentage of registered citizens with an FD. Gatekeeping is a dimension of the institution of the FD that appears, according to qualitative data, to be strongly conflicting with the pre-established structure of the Greek PHC system which allows free access to specialized services, and the corresponding culture of citizens. This is a possible obstacle to the potential of full establishment of the institution of the Family Doctor in the country.

Person-centred approach

The person-centred approach was introduced as one of the central objectives of the PHC Reform of in accordance with WHO principles, also reflected in the principles of the operation of TOMYs. There are

12 Family Doctor under the current framework may be either an NHS doctor serving in the public PHC units, or providing services through the of the Local Health Care Teams according to Article 106 of Law 4461/2017.), or a private doctor contracted with EOPYY and with a registered population of responsibility. Family Doctors can be General Doctors, Internist or Pediatrician.
13 See: GREEK STATISTICAL AUTHORITIES WITH NUMBERS January - March 2019:
http://Www.statistics.Gr/documents/20181/1515741/GreeceInFigures_2019Q1_Gr.Pdf/7e252b36-1092-4a77-80Ab-603afeb8c4Df
14 See: GREEK STATISTICAL AUTHORITIES OF GREECE WITH NUMBERS January - March 2019:
http://www. statistics. gr/documents/20181/1515741/GreeceInFigures_2019Q1_GR. pdf/7e252b36-1092-4a77-80ab-603afeb8c4df

ambiguous views on the degree the person-centred approach is promoted through the TOMYS. At an organisational level, a systematic methodological approach of recording the health profile and the needs of the population at local level has not been established. At the same time, a system of citizen participation in the organisation and development of services is not universally applied, according to qualitative and quantitative data. In addition, at the level of contact with the citizen, the members of the TOMYs report taking into account the opinion of the patient, but as they themselves confirm in a relevant survey, patients do not systematically participate in decisions regarding their treatment. The person-centred approach requires strengthening at the level of educating the health professionals. Nevertheless, the majority of TOMYs employees report that they are aware of its principles, any training they have received is not in the context of their current role.

Accessibility and reduction of additional health costs

According to the WHO principles, 24-hour operation is one of the conditions for the proper functioning of PHC. Although this objective has not been achieved, the operation of half the TOMYs with extended opening hours, i.e. until 10pm, their proximity to the citizens' place of residence and the ease of securing appointments, also improve the citizens' accessibility to free PHC services. However, the limited number of TOMYs that are operational, significantly reduces the impact on the population.

Also, the low weighted average cost of citizens' own contribution for prescribed medication (without comparing the health profile of patients in the respective PHC structures) outline a model of PHC services that potentially protects citizens against additional health costs (out of pocket payments).

Protocols and guidelines

TOMY doctors are familiar with modern health policies and available guidelines, such as the 13 General Medicine Guidelines, which are used consistently, according to the quantitative survey. The focus groups highlighted the need for systematic monitoring of the application of therapeutic protocols within a system of monitoring the quality of care. It also highlighted the need for expanding them and updating them with new methods of treatment.

5.6. Utilisation of digital services and tools

The role of digital technology is crucial in the operation of a modern, integrated, and well-coordinated primary health care system in accordance with WHO's Alma Ata Declaration (1978). Modern developments provide tools that enhance continuity in patient/citizen care, the recording of services provided, as well as the monitoring of access and transition between health and social care services.

The national health system and the PCH Reform are defined in the requirement to use many digital tools with the predominant purpose of monitoring and controlling the demand for health services, the relative budgetary costs and the recording of citizens' contacts with the PCH system.

These tools are:

- Integrated Information System for the Support of PHC (in the new model of the operation of TOMYs) by IDIKA. S.A,
- Electronic Appointment Service by IDIKA S.A.,
- Electronic Prescribing System by IDIKA S.A.,
- PPC and TOMY User Registry Service by IDIKA S.A.,
- EOPYY's Electronic Prescription System,

- Services of Chronic Disease Registries by IDIKA SA and EOPYY,
- Therapeutic Prescription Protocols Services by IDIKA S.A.,
- Service for the submission of monthly operational data of the PHC (and the TOMYs) BI-Forms by the Ministry of Health and finally,
- Citizen's Electronic Individual Health Record Service by IDIKA S.A.

A prerequisite for the success of the requested interconnection between primary, secondary, or tertiary health care structures in terms of recording and monitoring citizens' contacts with the system has been the enhanced use of the IEHR service. However, this was not possible because of the initial approach of the Ministry of Health for the exclusive use of the IEHR by the TOMYs and later by the EOPYY contracted FDs. An inhibitory factor was also the non-adoption of the necessary Ministerial Decision regulating on the determination of the levels of use and the specified content of information of the IEHR. This requirement was correctly established by Law 4600/2019 (Article 84), which fully covered the concepts of compliance of the service with the General Personal Data Regulation (GDPR), the definition of the legal basis in the context of the provision of health services, the designation of the data controller responsible for data protection (Ministry of Health) and the determination of the processor (IDIKA SA). The law defined the restrictive provisions for the use of the IEHR similar to other processes, and the administrative or civil penalties in such cases. This law extended the possibility of activation and use of IEHR by all specialist Doctors of General Medicine, Internists and Paediatricians, overcoming the problem of limited activation only by the FDs.

Regarding the Electronic Appointment service, the initial planning of the Ministry provided for its inclusion in the services of the PHC Integrated Information System. This requirement was combined with the adoption of appropriate decisions and circulars for the determination of the referral mechanism from the FD to other specialties, allowing the provision of specialised PHC services. This was not possible, despite the adoption of the decision, because of the absence of universal coverage of the population by FDs.

Regarding the other services, the Electronic Prescribing and the use of Therapeutic Protocols as well as the prescribing services for healthcare providers are widely used by the medical community the TOMY FDs.

In relation to the use of modern medical equipment, the design provided for the coverage of the needs of the medical and nursing staff of the TOMYS by the relevant RHAs. However, the analysis identified an absence of a clearly demarcated and uniform set of medical devices, that could be provided for all TOMYs (also on the basis of defined minimum and maximum services) and supported without any differentiation by the RHAs. Similarly, the same issue is found in relation to the necessary digital infrastructures of TOMYs in relation to the needs of network wired and wireless equipment, desktops and laptops, mobile devices, call centres, printing devices, etc.

From the analyses carried out in this project the following findings emerged in relation to the digital services and tools the members of the TOMYs are expected to use. Within the TOMYs and according to the staff surveys, it is found that there is no universal systematic use of the available digital tools of the NHS, in particular the Electronic Appointment service and the IEHR. In relation to the non-widespread use of E-Rendezvous (electronic Appointment) services, TOMY employees report that citizens prefer personal contact over digital services to book their appointments and this is one of the reasons why they choose not to use the service systematically.

Also, TOMY members correctly emphasize the inability to book citizens' appointments for services other than contact with the FD. They also pose as a limiting factor in the use of the service the complexity of its use. According to the TOMY Coordinators, several TOMYs appear to use their own digital tools to support the procedures for managing citizens' appointments. The result of this practice is the inability to monitor all citizens' contacts with TOMYs (bookings, cancellations, executions) at national level and measure the efficiency of TOMYs.

Similarly in the case of the IEHR, the TOMY FDs raise the issue of the complexity of its use and the fragmentation of information management since the service is not used by the other public and private sector physicians in PHC and Hospitals. Therefore, the recording of citizens' contacts with the system is limited (absence of diagnoses from doctors of another specialty, admissions, discharges and reasons for hospitalization, medication in the hospital environment, etc.). Accordingly, the TOMY FDs state that they are obliged to waste considerable working time in updating the IEHR. There is also the issue of using the IEHR on the principle of proportionality and by other professionals within the TOMYs and the controlled access to information that could assist them in their work. This additional access would allow further information to be entered in the citizens' electronic files by the other members of the multidisciplinary team.

Regarding the new reporting service for TOMYs in the BI-Forms system, the non-regular submission of data by the TOMYs was identified, since this procedure has apparently not been systematically communicated by the RHAs (source BI-Forms Ministry of Health).

In relation to all available digital services, TOMY employees express a need for continuous training in existing and new digital functions, as a prerequisite for their use.

In addition, TOMY members find that these digital services do not cover their need for open access statistical records and data that would allow them to identify vulnerable and special populations to develop more targeted actions in the community.

In general, the need to strengthen the use of digital services and their development in terms of developing the appropriate functions to enhance the work of the TOMYs and the PHC.

5.7. Financing

The budget for the pilot operation of TOMY in the PSR OP is EUR 67,044,237.46. This is public expenditure from European and national resources (ADA: ΨΦΜ7465ΦΥΟ-Φ2Γ/09-01-2018, pp.9,22). Following the pilot period of the project and funding from the NSRF, the Teams are financed from resources of the Regional NSRF/P.E.P. with a total public expenditure of EUR **192,058,524.34** for funding up to 48 months. It is worth noting that the percentage of co-funding at the P.E.P. is considerably lower than at the PSR (35,7% against 80%). Absorption rates of available resources are low in the PSR OP and the PEP to this point. This is due to the fact that only 127 from the 239 budgeted TOMYs are operational and most of them are understaffed. The funding mainly covers the cost of the payroll of TOMY staff. Part of the operational costs is also covered. TOMY employees expressed their concerns regarding the lack of available resources for delivering activities in the community, materials, and technological infrastructures, while sufficient resources from a funding perspective were identified. More sufficient utilization of the available resources could be achieved through more organized management and better and more comprehensive relevant briefing.

The efficiency of TOMY varies at high levels (0.61) in both PSR OP and PEP, however it turns out that the cost of operation of TOMY is proportional to their level of staffing, especially by medical staff.

The way the operating costs will be absorbed by the state budget has not been finalised and a significant gap may occur in the path of sustainable integration of TOMYs into the PHC system. The provision does not exist in Law 4486/2017, while Article 106 of Law 4461/2017 states that the operating expenses and payroll of the TOMY are covered by European resources from the co-financed four-year programme by the European Social Fund (law 4461/2017-Government Gazette 38/A/28-03-2017). However, in Law 4486/2017 there is no mention of the transfer of the cost of financing the TOMYs.

5.8. SWOT Analysis of the development framework of TOMYs in the context of PHC

The SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis draws on the conclusions from the analysis of primary surveys (quantitative and qualitative), secondary data (from information systems of EDEYPY, HIDIKA, MoH BI), bibliographical research and the gap analysis of the institutional framework. More specifically, the risks and threats related to the future development of TOMY within the framework of the PHC are correlated with the weaknesses and strengths of the current situation, aiming at a holistic and concise presentation of the possibilities within the Law. The following is the combined evaluation of factors, reflected in a summative table.

Evaluation of Factors – SWOT Analysis

Strengths	Weaknesses
• Universal Citizens' Access to PHC through the TOMY • Compatibility with the principles of Alma Ata, Astana • Adequacy to a large extent of the legislative framework • High levels of satisfaction of service recipients • High levels of satisfaction and enthusiasm of TOMY staff • Increasing registration with Family Doctors & Health Care Teams • Institutional orientation towards prevention and a person-centered approach • Intent on a cross-sector approach • Innovative application of the multidisciplinary team • Outreach activity by TOMY • Establishment of the Electronic Individual Health Record (IEHR) • Digital prescribing • Family Medicine Guidelines	• Moderate policy-making capacity at Local Level • Multi-fragmentation of PHC services • Limited and fragmented population coverage by TOMY • Staff shortages, particularly medical staff • Incomplete implementation of the administrative procedures for the definition and coordination of ToPFY • Non-administrative and financial autonomy of the PHC entities • Non-application of home-based healthcare • Limited cooperation with LAs to ensure adequate premises for TOMYs • Incomplete targeting & monitoring system • Incomplete monitoring of population needs and health profiles at local level • Lack of interoperability, limited interconnectivity, the IEHR does not automatically communicate with other operating systems • Non-implementation of a centralized electronic referral and interconnection system, vertically with hospitals and horizontally within LAs and with social care services
Opportunities	**Threats**
• The organisation of Primary Health Care in the agenda of the political debate • The TOMY among the commitments to the EU for the development of PHC • Seeking to control the flow of patients (gatekeeping) to hospitals • Possibilities to improve access - time - cost of health services • Full free primary health coverage of the country population • Development of digital governance services, e-health, interoperability possibilities, full interconnectivity • Institutional possibilities for decentralization responsibilities • Possibilities of developing academic education units in family medicine with the involvement of TOMY Involvement and KOMY (mobile teams) function for the management of COVID-19	• Doctors' reactions • Central coordination of agencies and bodies involved • Competitive climate with Health Centers – functional deficiencies of Health Centers • Disagreements over the evolution of the institution of TOMY • There is a need to support family doctors with training in digital tools, clinical guidelines, and protocols • Questions on financial continuity

6. Proposals for the further development, integration and consolidation of the Reform and the integrated approach to the PHC in line with the current policies of the WHO, the EU.

The following proposals are based on the analyses, the distinct conclusions on the basis of the applied analysis indicators and the evaluative questions and are guided by the central themes that have been both a topic of discussion in the focus group concerned and in the individual interviews with Ministry of Health staff, medical association executives and political leaders of the reform. These proposals are developed in the logic of further institutionally shielding the development of the PHC in accordance with the following lines of intervention. Proposals relating to the further development of TOMY are also incorporated into the individual axes in the perspective of their implementation, on the basis of an integrated system of PHC services.

A) **Development of an integrated PHC system.** It concerns the organisation and interconnection of health and social care services towards an integrated and efficient service provision system. The aim of modern PHC systems is to meet health needs on the prevention of disease, its treatment and the improvement of the quality of life at individual and collective level. For this reason, the system's resources are channeled in such a way that the developed processes facilitate the functioning of the system and empower citizens. For this reason, the system's resources are channelled in a way that the developed processes facilitate the functioning of the system and empower citizens. This means that citizens participate in the decision-making process in a climate of mutual trust between provider and user, respecting their specificities and needs, by forming a human-centred system. At the level of recognition of health as a human right, the system aims to improve and protect the health and well-being of citizens, with the main priority being the provision of quality services leading to better health outcomes and the general well-being of the local population.

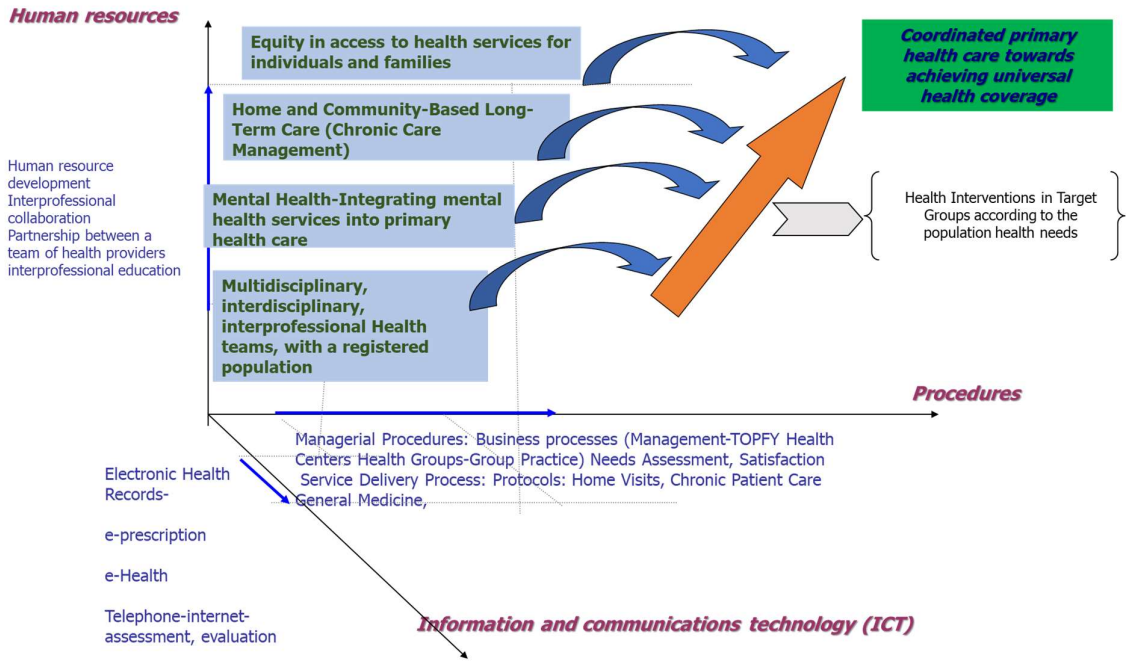
The development and effective operation of an integrated Primary Health Care network also enhances the possibility of an immediate and effective response of the National Health System to the treatment of emergencies such as in the case of the COVID-19 pandemic, utilising the PHC services as the first point of contact for citizens and the management of care in the community.

To achieve quality, it is necessary to have a reliable system of quality indicators which will form the basis for assessing the performance of the system. For this reason, the mechanisms for recording and exploiting information and static results processing should be further supported in order to measure the efficiency of the individual sections.

B) Investing in human resources. Investment in human resources governed by the culture of modern PHC plays a central role. The same framework includes the development of multidisciplinary healthcare mechanisms from scientific disciplines related to the PHC that can constitute collaborative groups to provide integrated care. The functioning of these groups must be dynamically adaptable to the changing situation of patients over time in order to address their gradually evolving clinical and psychosocial needs. These groups should maintain dynamic and secure links of cooperation with the mechanisms and professionals in secondary and tertiary care and, respectively, with public or mental health support services, as well as with local developed social services. It is also important to provide incentives to upgrade the PHC and strengthen the work of its workforce.

C) **Definition and implementation of modern procedures**. The need to define streamlined and transparent procedures for both the beneficiary citizen and the PHC workforce is important. The aim is to standardize care, based on the systematic use of clinical guidelines and protocols of care, management, and treatment, to relieve patients of the difficulty of contact with the health care system. Strengthening the evaluation mechanisms of the professionals and their teams and the quality of their work provided to the local population is also an important objective. This requires the development of mechanisms and tools for methodological assessment of the needs of the population.

D) **Enhancing the use of modern digital tools and services.** A key development condition is also the integration of modern digital tools and services as well as their consistent use. These tools should be used in the collection and utilization of medical information as well as in the decision-making process. They can also facilitate the communication between health professionals by strengthening the communication and contact mechanism of TOMYs with the rest of the system. At the same time, digital tools can contribute to the effort to simplify citizens' contact, with doctors and other health professionals being informed immediately and contributing to the development of outreach policies and actions of teams at local level. In combination with quality systems they can contribute to faster processing of indicators and the creation of maps of local health needs according to population groups by facilitating service allocation policies.



E) Financing. Investing in Primary Health Care leads to a reduction in the overall cost of the population's health care on the basis of maintaining their health at good levels. In the short term, however, the financing of both the investments and the operational needs of a modern PHC network creates significant financing needs which will have to be met by distinct national and European sources of funding. The reference to the existing resources of the NSRF is temporary and inadequate, since it can mainly cover TOMY/KOMY needs and some interventions in the HCs, but a strategically evolving development of the PHC entirely.

We list indicative cost categories that any intervention will have to face:

- Improvement and modernisation of building infrastructure and equipment of TOMY structures and in particular of the HCs (urban and rural).
- Meeting interdisciplinary staff needs
- Actions/investments in process organisation, modernisation and quality improvement.
- Digital media and tools as well as digital and information infrastructures.
- Strengthen group training and strengthen research and further development actions.
- Development of modern mechanisms for project evaluation and quality assurance of the services provided

Regarding the coverage of the operating costs of the services provided, it is necessary to review the current model of fragmented approach. Resources from the State budget, health insurance contributions (EOPYY) need to be treated as a whole and then allocated according to specific epidemiological criteria at the level of health region and local unit. The international experience and the Greek scientific community have presented studies and models that can be used in this direction.

6.1. Development of Health Care Teams

In the light of the positive conclusions from the evaluation of the functioning of the Local Health Care Teams, it is proposed to continue the development and strengthening of the model of interdisciplinary family medicine groups in the context of the spread of the institution of FD to cover the entire population and the development of actions in the community. The interdisciplinary Health Care Teams are developed within the network of the PHC with a focus on the reference HC. Experience to date shows **two alternative approaches to** further development of the Teams:

- The evolution of Local Health Care **Teams** into Local Health **Units** that will be very similar to existing regional dispensaries (or small KY) with an expanded role of family medicine. In such a case it is necessary to review the staffing, accommodation assurance procedures, as well as the levels of uniform coverage of logistical, medical and digital equipment.
- The organic and functional integration of the **Interdisciplinary Health Care Teams** within their **Reference Health Centres, while** ensuring the distinction of the services provided as well as their operational flexibility in order to function refreshingly by strengthening the work of the HCs.

At the same time, the role and involvement of EOPYY's contracted FD and other physicians should be clarified in both cases towards the creation of a cooperative and complementary prevention-oriented care network.

The development of existing and additional Health Groups can be carried out in the logic of exploiting the already developed financial opportunity which extends in time until 2023

6.2. Proposed interventions for the organisation of an integrated PHC system

The following proposed interventions arise taking into account, on the one hand, the findings of the Gap Analysis of the institutional framework and the synergy matrix with international and European policies and trends for the development and organisation of PHC Systems, and on the other hand the obstacles to the development and organisation of the PHC services and, by extension, the TOMYs, which emerged through quality research, as well as the proposals that emerged during the focus group and interviews with staff. Quantitative research highlights the limited levels of cooperation between

TOMY and local health and social care structures and services. The focus group highlighted over time issues related to the organization of the system of PHC Services as a whole and the multiple PHC services reform efforts n recent decades, as well as the difficulties of their implementation in the Greek reality. The relevant conclusions and issues of central organisation and competences, resulting from the analysis of the institutional framework and qualitative research, have led us to draw up a series of proposals concerning the organisation of an integrated PHC system, in which coordinated interventions such as those of TOMYs are developed, both at central and local/sectoral level.

- Configuration of PHC Networks and related PHC Sectors on the basis of a modern performance mechanism. These networks and their areas of responsibility are created on the basis of maximum capacity utilisation of existing public and EOPYY-contracted providers and doctors, and social care structures (such as home assistance structures, KAPI, KIFI, etc.) within the framework of contractually defined cooperation.
- Exploration of the dynamics, framework and incentives necessary for the development of collaborative (and interdisciplinary) schemes by freelancers contracted with the EOPYY.
- Completion of the institutional framework and development of networks and sectors on the basis of the utilization of the range of scientific capacity to meet the needs of the population. Strengthening the ability to develop partnerships in the logic of contracts with private health service providers, doctors and other professionals, e.g. through RHAs or EOPYY.
- Completion of the institutional framework for the development of Networks and Sectors and the performance of appropriate mechanisms for organising the process of interconnecting, communicating and co-managing the care and promotion of the health of the local population.

Proposed projects or actions

- Definition of the requirements for the provision of PHC services and thus the ability of existing providers to meet them or the requirement to invest in new structures or services.
- The assessment of the capacity or ability of a network to meet the needs of the local population will also allow for the assessment of the required public financial resources or the assessment of payroll and operational costs (for public structures).
- Systematic assessment of the needs of the population of responsibility and the assessment of the required financial resources.
- Establishment of a governance mechanism within the Central State with responsibility for the formulation and implementation of the determined policy for the development of the PHC.
- Establishment of an appropriate monitoring and coordination working group for the promoted PHC reforms in the country at central level. Indicatively, the group may consist of executives from the PHC Directorate of the Ministry of Health, the NRSF Executive Agency, the Directorate of Digital Governance, the Directorate of Strategic Planning and the Ministry of Health.
- Ensure the necessary political and social consensus for the development of the PHC and to support commonly pursued long-term objectives.

6.3. Proposed interventions to strengthen human resources

The proposals in this section are the result of the analysis of the findings of primary quantitative and qualitative surveys and analyses of secondary data relating to the staffing of TOMYs, the assessment of jobs and work culture within TOMYs, as well as the need to further strengthen the human resources of the PHC in order to promote its principles in accordance with the national framework and the WHO. Gap Analysis of Gap Analysis the institutional framework was also taken into account, as well as the findings and proposals that emerged during the focus group and interviews with staff focused on the staffing of TOMYs and human resources. At the same time, proposals are presented for the additional development of collaborations with academia, for the strengthening of the PHC human resources in the country.

- Increase the population covered by PHC services by increasing the number of FDs within the Health Care Teams and contracted doctors with EOPYY and ensuring universal access to primary care services with a view to improving the quality of life of citizens in accordance with WHO guidelines.
- Investigation with the cooperation of the scientific community of the correctness and possible conditions of a possible expansion of medical specialties that can assume the role of FD, in the logic of wider population coverage and choice by citizens.
- Further development and strengthening of the culture of the employees of the Health Care Teams and the other PHC structures and EOPYY-contracted physicians oriented towards the values of PHC, such as prevention, interdisciplinary and cross-sector cooperation, as well as the person-centred approach.
- Connecting Health Care Teams, through the PHC networks, with Universities and Research Centres and the PHC University Units, with the aim human resource development in PHC and continuously improving the clinical efficacy and safety of patients. This promotes interdisciplinary research, creates conditions for linking technology research with practice, and enhances the potential for professional and scientific development of the workforce. Patients are actively involved in shaping the research environment and are supported in socially deprived and remote areas.

Proposed projects or actions

- Assessment of educational needs, by formulating alternative training and continuing training scenarios, both in the long term and in the medium term and in the short term, according to educational needs and the number of people. Training programmes will not replace specialisation programmes, but will aim at developing the health system and modernising existing knowledge, focusing on innovation, maximum use of digital technology, etc.
- Review of the salary earnings or the compensation framework of the FDs within the Health Care Teams and the contracts with the EOPYY, as a motivating measure to strengthen their response to the support of the institution (e.g. with geographical criteria of aid, population epidemiological criteria of aid, etc.). Exploration of a mechanism for monitoring and assessing renumeration, on the basis of the achievement of projected objectives in conjunction with a basic compensation framework for joining the institution, taking into account renewed strategic priorities and the need to implement the national health budgetary programme.
- Establishment of training programmes in the workplace, consistent with the specific medical, clinical-laboratory and administrative-management requirements in health services.

- Development of a system for monitoring the organisational culture and satisfaction of employees in the Health Care Teams of the PHC covering of organisational, operational and administrative issues.
- Strengthening the specific management and coordination positions with remunerative incentives and professional development incentives.

6.4. Proposed interventions for the development of integrated procedures

For the development of the following proposed interventions, the conclusions of the primary research (including on-site visits) and the analysis of the secondary operating data of the TOMYs have been taken into account, with emphasis on the investigation of the implementation of the functions and the provision of the services specified by the institutional framework for the operation of the TOMY. The findings and suggestions that emerged during the focus group and interviews with executives are also included, focusing on the procedures for the functional interconnection of TOMY with the PHC network. At the same time, the utilization of the available institutional and operational tools has been explored, as well as their theoretical approach, in synergy with the directions of the WHO.

- Establish standard procedures for the interconnection of structures within the PHC Networks that will operate and meet the needs of the local population. It is necessary to actively involve local social actors in strengthening the work of networks and sectors.
- The HCs are the reference point of each local Network and are reinforced in terms of coordination and interconnection with the network's main PHC services and with the secondary care services of the Reference Hospital. Their workforce receives guidance and empowerment to integrate the multidisciplinary family medicine teams while maintaining their distinct roles.
- Strengthening of Health Care Teams in terms of staffing and operational interconnection in order to act as a strong pole of horizontal cross-sectoral cooperation with specialized doctors and social care services, with the aim of holistically meeting the needs of citizens at the level of PHC.
- Strengthening and promotion of the role of the FD as the first point of contact and the navigator in the health system, in cooperation with the multidisciplinary teams of the reference network or sector. Gatekeeping is promoted through the definition of interconnection and referral procedures and the expansion of the use of digital tools and media and the coverage of the population with family medicine services[15].
- Strengthening the person-centred approach through the empowerment of citizens, the development of dynamic advocacy (e.g. regarding laws or regulations related to health or disadvantaged groups) and establishing a framework for their participation in the design of services and community-based activity, and decisions regarding their treatment.
- Continuous, coordinated and up-to-date communication of information to citizens through relevant actions on the services provided by the Health Care Teams, their aims and the role of the FD.

[15] It should be noted, however, that the strengthening of gatekeeping, especially in the logic of cost control, is expected to provoke a reaction from citizens as it limits the established possibility of free choice. At the same time, gaps in administrative and operational organization (eg lack of common protocols) may develop tendencies of competition between primary and secondary care physicians.

- Strengthening accountability boards, transparency mechanisms and development of mechanisms to facilitate them, within the framework of modern mechanisms for executive monitoring and intervention at different levels of the organisation of the PHC.
- Strengthening the clinical and organisational effectiveness of Health Care Teams through the standardization of care through the systematic use of clinical guidelines and protocols for transfers, referrals and discharge of patients.

Projects and actions

- Strengthening the staffing and infrastructure of the HCs in urban centres, in order to function as Centres for the provision of specialized PHC services, including additional services (e.g. with professionals such as Psychologists, Midwives, Physiotherapists, Dietitians, Nutritionists, etc.) and 24/7 operation.
- Strengthening existing HCs in rural areas towards the modernisation of their management and reorientation towards the provision of corresponding services.
- Health Groups are taking an active role in the process of mapping and mobilizing resources, recording the health profile of the local population, and actively participating in the development of the objectives in the local health plans and in setting targets.
- Development of a system to measure the performance and quality of care in accordance with defined roles and responsibilities of the provider and other PHC professionals.
- Definition of agreed health indicators at the level of Health Groups, RHA and country-wide and the criteria for formulating realistic, relevant and measurable objectives, and continuous assessment of their progress. Establishment of appropriate advisory and support mechanisms to address problems that lead to a serious deviation from the expected objectives.
- Development of a methodology for continuous assessment of citizens' satisfaction with the services offered, using modern tools. Development of a feedback system to improving service provision.

6.5. Proposed interventions to maximise the use of digital services and tools

The proposed interventions to maximize the utilization of digital services and tools, as listed below, are a product of the analyses carried out in the context of this project. They result from the analysis of the quantitative and qualitative data of the primary research, regarding the utilization and application of the digital systems and tools by the employees of TOMY and their triangulation with the data of the information systems of IDIKA, BI of YY and EOPYY, and also the analysis of the implementation of the institutional framework. At the same time, the testimonies and suggestions of the participants in the focus group and the interviews with executives in relation to the digital services and the means that the members of the TOMY Teams are invited to use, have been taken into account.

- Universal use of IEHR in its current form util it is redesigned on the basis of distributed performance (based on the Ministry of Health's strategy).
- Exploration of the method for functional extension of the IEHR in the logic of its use by the other members of the Health Care Teams and by all the professionals of the PHC.

- Universal roll out of the Electronic Appointment system to all the structures and services of the PHC, as well as the integration in the system of the available appointments of the members of the interdisciplinary Health Team and not only of the FDs.
- Development of an electronic referral mechanism, which will be able to be used by all PHC professionals to refer citizens to other levels of health services and to other PHC professionals.
- Configuration of the conditions of mandatory and single use of digital media and services.
- Strengthening the capacity for epidemiological surveillance of the population as well as the overall work of the health professional in Health Care Teams and PHC structures, through the development and monitoring of indicators through the IEHR system Electronic Prescribing, BI-Forms and the system of Electronic Appointments.
- Provide tools for digital organization and recording of actions in the community.

Proposed projects and actions

- Definition of a predefined set of digital infrastructures and equipment for health units as well as FDs.
- Development of tools for automated data collection and assessment of PHC services beneficiaries' satisfaction.
- Improvement of health professionals' skills to make full use of the available digital tools (within the framework of the proposed actions on human resources).
- Development of special open data rendering processing mechanisms and utilization of the "Health Atlas" service for the geographical performance of open data of PHC services.
- Cooperation with initiatives to improve citizens' digital skills.

6.6. Proposed interventions to ensure sustainable funding

The proposed interventions to ensure the sustainability of funding, arise, having taken into account the bureaucratic research on the current financial framework and the possibilities of sustainable funding, in the logic of the expansion and further development of Health Groups. At the same time, the data of the qualitative research have been utilized, as well as the know-how of the evaluator.

- Designing of the utilization of all the resources co-financed through the RDPs to strengthen the development actions of the Health Groups.
- Designing a financing plan for the Health Care Teams after the end of the co-financing of the project of operation of the TOMY by the ESF.
- Assessment of the total required amount of budget for the development and expansion of the Health Care Teams and the institution of the FD. The estimate is made based on a single and predetermined regular budget, as a percentage of the country's GDP. The assessment follows the standards applicable to the overall public health services budget. The estimated levels of reciprocity (ROI) of the operation of modern PHC services are also calculated based on reducing the use of other levels of care at the level of the public health system.
- Utilizing proposals for improving procedures to capture and monitor the effectiveness and efficiency of Health Care Teams and other service providers and the wider PHC Networks, taking

into account that the operation of the PHC is rewarding in the long run but in the short term requires increased investment.

Proposed projects and actions

- Preparation of a techno-economic report analyzing the real operating costs of public PHC services in our country (both in terms of salary and operations and in terms of services offered).
- Estimation of the cost of development and operation of the PCT system on the basis of integrated networks.