Research Implementation Plan Turkey

What is the ideal proportion of the total healthcare budget that guarantees the development of quality primary healthcare in Turkey?

Background and significance

Turkey has launched a reform package called Health Transformation Program in 2003. Since then, Turkey's healthcare system has been undergoing a significant transformation. Turkey's success at improving healthcare coverage and system performance has been impressive with significant improvements across indicators, such as maternal and infant mortality.[1,2] The primary care (PC) sector must now adopt quality as the focus of on-going reform. Now, Turkey's maturing healthcare system must anticipate the inevitable shifting of the national disease burden toward chronic morbidities associated with increasing age.[3] In the literature, the strength of Turkish PC is presented as weak to medium in comparison with other European countries.[4] Major areas needing improvement are integration of primary and secondary/tertiary care, coordination role of PC doctors, comprehensiveness and continuity of PC services, and strengthening PC teams.[5,6]

Primary health care (PHC) services are mainly financed through the general budget in Turkey; however, health expenditure statistics provided by government institutions do not include an expenditure item that could be attributed solely to PHC. According to the Organisation for Economic Co-operation and Development (OECD) Health Statistics 2017, with 53% Turkey has the highest hospital expenditure among the OECD countries. Only 13% of health expenditure of Turkey is attributed to ambulatory care. Turkey's health expenditure as a proportion of gross domestic product (GDP) is around 5.4% and has a steady state during recent years.[7] The latter figure is in compliance with World Health Organization (WHO) suggestion of 5% GDP for health, but there is no recommendation for the ideal proportion of the total healthcare budget that guarantees high quality PHC services for upper and middle-income countries.[8] In addition, the very recent challenge for Turkey is to guarantee high quality PHC services in the times of economic crisis. Turkey is facing global disadvantages of emerging markets nowadays, but also devaluation of Turkish currency of about 49% between June 2017 and June 2018 compels cost effective measures for quality improvement in PHC.[9]

Several factors play role on determining the right amount of spending on health care services, such as epidemiological conditions, social aspirations, the technical and allocated efficacy of health inputs and existing prices.[10,11] There are several approaches for calculating the costs of interventions at country level, such as peer pressure approach, the political economy approach, production function approach and the budget approach. According to WHO, the most complete approach, taking all factors mentioned above into consideration, is to identify the desired health status changes and determine what needs to be purchased in terms of health services or health service inputs in order to achieve those goals.[8]

The aim of this project is to determine the ideal proportion of the total health care budget that guarantees the development of quality primary health care in Turkey. In order to reach this aim, it is needed to set goals within the epidemiological context, estimate input requirements, survey prices and wages, and make arguments for health spending relative to other demands on the healthcare system on the basis of quality measures. Taking Turkey as an example, this task has to be achieved in times of economic crisis.

Specific Aims
The project will aim to answer the following specific questions:
1. How are the expenditure items, trend of expenses attributed to PHC and financial policies of Turkish health care budget differing from other countries having same GDP (upper middle-income countries)?
2. How is the quality of care provided in PHC in Turkey and what are financial barriers disabling, and also rational priorities that has potential to enable high quality PHC service provision?

Study Design
Targeted geographic region(s) and rationale for selection
There are 12 NUTS 1 (Nomenclature d'Unités Territoriales Statistiques) in Turkey and at least one province will be selected from each NUTS 1 in order to increase representativeness and also detect regional discrepancies.

Targeted population
PHC professionals, patients, academicians, policy makers and health directors.

Methodology
This research will be a mixed method research in five steps.
STEP 1: Analysis of current situation
The first step is an extensive document review to ascertain existing policy frameworks, strategic documents, meeting/workshop reports, medical news, statistical reports and research papers including grey literature. The researchers will choose these texts to encompass a variety of documents providing information about the financial policies and the health budget of Turkish healthcare system as well as other countries having the same GDP. Researchers will also aim to compare these documents to identify major themes, which exist in this area. National policy documents, strategies, action plans and also legislations will be analysed.

STEP 2: Cross-sectional survey
Quality of care will be assessed by questionnaires addressing PC patients and doctors. For the quality assessment the PHAMEU framework will be used as guide and questionnaires will be based on the surveys used in the QUALICOPC study.[12-15] By this way, we will be able to see the trends after implementation of Family Medicine Scheme throughout Turkey in 2010. QUALICOPC distinguishes three levels of care.[14] The first level is the system level of PC, encompassing features such as financing, governance and resources. The second level is the provision level, characterised as the delivery of care process at GP practice level. GPs can be seen as the core providers of PC. The third level are the users of PC services.

A minimum of 360 PC doctors and 3600 patients will be enrolled. Data collection will take place in 12 NUTS1 regions, each including one province, selected according to geographical distribution developmental status of the given provinces. At least 10% of the sample will be selected from family physicians with vocational training and their patients.

STEP 3: Participatory Action Research
This step will involve observations in several clinic settings. At least four to five PHC facilities will be selected for observations. A researcher will be present for a month in each facility to make active observations. This researcher will take notes of his/her observations and these notes will be analysed. The active observation process will focus on clinical practice, management of the unit and attitudes of health care professionals. The action will be

the actual experience in daily life in a PC centre. Financial barriers against provision of quality PC in real life situations will be identified. The results of the observations will be reported.

STEP 4: Qualitative research, Delphi panel and Discrete Choice Experiment
This step will involve in-depth interviews with key informants (experts including policy makers, economists, academics and health directors) to study their thoughts about financial policies for PHC. In total at least 15-18 key informants (policy makers from ministries, health directors and academics) will be selected in Turkey. Pre-prepared questions based on previous research data (Steps 2 and 3) will be posed to each interviewee and their answers will be audiotaped, analysed and reported. These questions will be related to quality assessment of PHC services and financial barriers disabling, and priorities enabling high quality PHC provision. Especially opinions on either redistribution of health budget or increasing PHC share will be explored during interviews.

A Delphi panel will be applied for reaching consensus about the priority areas that will guarantee high quality PHC services. Options for Delphi panel will be derived from both qualitative and quantitative data collected. The financial attributes and their levels for discrete choice experiment (DCE) will be determined by using information from the panel and qualitative research. DCE will enable us to analyse the simultaneous use of several criterion such as cost-effectiveness, equity (coverage of services), efficiency, burden of disease (Disability adjusted life years) during decision-making. The choices will include different options for primary healthcare care budget and participants will be able to trade on the choices. Academics, policy makers, health directors and clinicians working in the field of PHC will be enrolled. This method will give information about the importance of the attributes of participants during decision-making and how different options are traded off in the different circumstances. As a result, a framework for using evidence for rational priority setting will be provided (multi-criterion decision analysis - MCDA). Finally, relative importance of decision-making criterions will be estimated by using regression models. These data will help us select actions with the highest priorities, which can enable high quality PHC service provision in local settings.

STEP 5: Analysis for the estimation of percentage of the primary healthcare budget
In order to set the targets that will guarantee development of quality primary healthcare (scaling-up and/or reorganising health services where necessary and determining the resources needed), we will use the information gathered in Steps 1-4 (document review, cross-sectional survey, qualitative data and Delphi panels and DCE). These targets will be in compliance with national and international policy documents such as Millennium Development Goals, National Non-Communicable Disease Control Action Plan. Finally, an overall analysis will be performed to estimate the relative change in budget for achieving the targets defined and the ideal proportion of the total healthcare budget that guarantees the development of quality primary healthcare in Turkey.

Potential research team and partners
Research Team:
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- Kaan Sözmen, Msc (health economics). Assoc. Professor of Public Health, Katip Çelebi University School of Medicine, İzmir, Turkey, Discrete Choice Experiment and final analysis of overall data.
- Tino Marti, Msc (health economics). European Forum for Primary Care (EFPC) Executive board member

Coordinator institution:
TAHEV (Türkiye Aile Hekimliği Vakfı - Turkish Family Medicine Foundation)
Partners: MAR-AHEK-UYAM, NIVEL, PCU, EFPC, Universities.

Overview work plan

Yr	Qtr*	Work Package	Outcome
1	1	Analysis of existing data/policies (statistics, reports, policy documents, legislations, articles)	Report on current finance and quality of PC in Turkey and similar middle-income countries
	2	Preparation* for cross-sectional surveys Preparation* for PAR	Field Surveys (doctor and patient experiences and values) Meeting schedule and observation
	3	Data collection: Cross-sectional surveys Implementation of PAR -Part I	Field data Initial observatory data
	4	Data analysis: cross-sectional surveys Implementation of PAR -Part II	Report/article/scientific presentation on cross-sectional data
2	1	Data analysis: PAR Preparations** for Qualitative R	Qualitative data
	2	Data analysis: PAR Dissemination of research results Data collection: Qualitative R***	Report/article/scientific presentation on PAR data

	3	Data analysis: Qualitative R	Report/article/scientific presentation on Qualitative data and Delphi panel
	4	Delphi Panel	
3	1	DCE	DCE data
	2	DCE analysis	Report/article/scientific presentation on DCE data
	3	Final overall data analysis Reporting: ideal proportion of PHC in total health budget	Final report
	4	Dissemination of results	Report/articles on whole project Meetings and documentation Media eg social media, handouts

*3 months each**preparing research documents, ethical approvals, team allocation and sample selection***Research

Barriers to implementation

Barriers	Strategy to overcome
Possible unwillingness of the potential participants	Budget allocation for incentives to promote participation
Reluctance of local /central health authorities about supporting the implementation of research	Having strategic partners who has experience in health research at national and international level and involvement of Ministry of Health in the research team at local and/or central level.

Dissemination of results

Publishing research results Articles, reports, highlights as hand-outs/posters, social media and health magazines.

Meetings with stakeholders to share study results

- Scientific meetings: Workshops, poster/oral presentations, symposium/conferences
- Ministry of Health: written documentation and/or face-to face meetings
- PC organisations: Family medicine associations and federation, family medicine specialists' association etc.
- Patient and volunteer organisations: eg patient rights association.

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