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HEALTH NEED ASSESSMENT, THE STARTING POINT FOR EFFECTIVE HEALTH POLICIES AND INTERVENTIONS

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Assessing the health needs of population is an essential step in proper strategic and operational planning of health services, interventions and programmes of preventive, curative and rehabilitation type. The model set for needs analysis should take into consideration both the main reference frames given by the literature, and experience in adapting and applying an assessment model to current requirements formulated within the specific context. A realistic, documented, comprehensive and professional health needs assessment would enhance informed decision making process, a basis for effective health services planning. In order to implement the National Health Strategy 2014-2020 and to adequately plan the health services at the level of its eight development regions, Romania has achieved such an expert, complex health needs assessment, in 2016.

***Keywords**: health needs, health services, health needs assessment, health strategy, Romania*

INTRODUCTION

Health services *planning* is, according to Thomas, a complex process of overall health needs assessment in a certain population from a region, also indicating the manner of covering the needs identified in the most effective ways by properly allocate the existing and future resources. [1]

Health strategies are to be developed starting from the more comprehensive, professional assessment of population health needs. Healthcare plans, both strategic and annual ones, should be based on outcomes of needs assessment.

Conceptualization developed by Pinault and Devaluy in the field of health and healthcare needs assessment of a population could be considered a reference, by differentiating with respect to perceived needs, expressed needs (demand), normative needs, and comparative needs in health. [2]

- *Perceived need* refers to those services, interventions and products (medicines, prosthesis etc.) subjectively considered by the individuals necessary for them and wishing to be received, although sometimes it is wrong or induced. Despite deficiencies (subjectivity, informational asymmetry), studying perceptions on health needs is necessary in order to find out the importance people give to their own health problems, differences between perceptions and objective healthcare needs, and also understanding healthcare consumer behaviors, - all useful elements for substantiating and adjusting health interventions to population profile.
- *Expressed needs*, or demand for health services, denote the requested and provided health services as differentiated on type of care the level of care, quantified as numbers of medical consultations, investigations and treatments delivered by general medical practice, ambulatory care specialized offices, emergency units, hospitals home and palliative care organizations. Expressed need is actually considered a *derivate demand* from the need for health of individuals, while its determinants include healthcare price, level of education and information, income level of person/family, age and biomedical factors, medical services supply, as well as socio-cultural factors.
- *Normative need* means an objective analysis, achieved by professional experts on basis of all relevant data, evidences, analyses and studies, by taking into account features and context of the given population studied, towards an optimum level aimed to be attained.
- Comparative needs are concluded by professionals starting from the level of needs for health and health services observed in similar, comparable populations.

This conceptual framework also indicates the importance periodical health needs assessment for general population and special groups.

The Healthcare Management Dictionary defines *health needs* assessment as a detailed description of the health needs profile, together with a documented synthesis of recommendations in terms of objectives, aims, measures and interventions recommended towards the current stage of services provided. Consequently, from macro level - of healthcare system, to micro level - of health care organizations, regardless of their size or market share (for providers), all stakeholders should understand the profile of needs for the population served, in order to reevaluate their own activity and prioritize the services. Methods suggested for analysis here include defining measurable outcomes, collecting secondary and primary data and evidences, evaluating effectiveness of interventions, review and compare data, as well as considering non-biomedical determinants of health. [3]

NICE experts have defined health needs assessment as "a systematic method of reporting the health problems faced by a population, leading to agreed priorities and

allocation of resources to improve the health status and reduce inequalities." [4]

For Wright and collaborators, *needs assessment* consists in a systematic method to identify health and healthcare needs that are *not covered* in a population, as well as changes necessary to meet those needs. In order to set priorities, the analysis involves both an *epidemiological approach* – objective, quantitative, as well as a *qualitative one* from patient perspective, considering medical, economic, social, ethical and technological factors, in order to determine: what *should be* done, what *could be* done, and what *can afford* the authorities to carry on at the moment of assessment. This complex analysis will use all existing relevant data and evidences, avoiding duplicate efforts for data, and the success depends on practical understanding of the health system, resources and integration of assessment outcomes in services planning. Differences between needs, demand and supply for health services have to be acknowledged, particularly in order to identify the unexpressed and unmet needs, given the significant contribution of non-biomedical determinants of health.

Needs assessment is structured, in fact, in three main components:

- Analysis of *health needs*, using geographic and demographic data, major health determinants, health status and behaviors, groups with special needs, individuals / groups at risk;
- Analysis *needs health services*, using date geography, health workforce, services available (distribution, consumption, accessibility, responsiveness, competence, acceptability, quality), market analysis, efficiency and effectiveness of health services and programs, coordination and integration of services, opportunities for improvement);
- Setting *priorities and options*, based on assessment and resources available, within the context of political vision and objectives.[5, 6]

International context. The World Health Organization underlines the importance of health needs assessment at *community level*, since professionals, healthcare providers, decision makers, authorities and policy makers have to ensure that adequate resources are made available in community for improving the health of individuals and families, including vulnerable groups, in the context of inequalities, diversity and globalization defining our societies today.

These theoretical considerations also run into basis for the health strategies and programmes currently developed at the level of European Region, and European Union.

European context. "Health 2020: A European policy framework and strategy for the 21st century" has been developed by the WHO for the European Region and approved by the 53 countries, in order to measurable influences health and wellbeing of population from this region, considering diversity. The strategic objectives agreed are: reducing premature mortality by 2020; increasing longevity; reducing health inequalities; consolidate well-being; universal coverage and the right to benefit from highest health standard achievable for citizens; setting appropriate national health goals, objectives and targets. And targets derive from prioritizing problems and objectives set on basis of needs assessments performed by experts. [7]

As health account for a major concern and a strategic resource for the European citizens, the European Union aims to *support and complement* the national health policies and interventions, as well as collaboration between the member states for improving public health, with the purpose of preventing disease, limit health threats and ensuring a high protection of health for individuals and communities, in accordance with the article no. 168 of the Treaty on the Functioning of the EU, without interfering with health services organization, provision, administration or resources allocation - of member states. Therefore, EU support the efforts of nations by: promoting healthy life style; promoting equality of chances for a good health status and quality healthcare for all; approaching cross-border serious threats for physical and mental health; aid in fighting against major problems (ex. pandemics, chronic diseases); develop EU legislation and standards for medical services and products; tools for identifying and using the best practices; support the effective new health technologies; financing joint health projects. Support and collaboration fields have been definite according to the needs and priorities set at Union level, in accordance with WHO recommendations with the purpose of improving health and, implicitly, well-being of the European citizens. [8]

EU Strategy „Together for health" came in support of Europe 2020 Strategy, that aims to build the proper environment for "smart, durable and inclusive growth for all". And this desideratum would be possible only if the European citizens attain and preserve a good health status. [9, 10]

The third EU Public Health Program (2014-2020), whereby the European Commission implements EU health strategy, is provided with a total financing of EUR 449.4 million, aiming to:

1.promote health persons and communities, prevent diseases and encourage development of environments favorable to healthy life-**styles**, acting on the principle "health in all policies";

2.protect EU citizens against cross-border serious health threats**;**

3.contribute to the development of innovative, efficient and sustainable **health systems**;

4.facilitate the access to a better and safer **medical assistance** for Europeans. (EU, Health Programme 2014-2020) [11]

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National context. The National Health Strategy 2014-2020, entitled „Health for prosperity" and the Action Plan for implementation have been elaborated and adopted in Romania as a framework document also considering the European provisions. The Strategy indicates seven general objectives structured on three strategic areas of intervention:

1. Public health
- improving the health status and nutrition of mother and child;
- decreasing morbidity and mortality by communicable diseases, and reducing their impact on Romanian citizens and society;
- slowing down the growth of morbidity and mortality by non-communicable diseases and reducing the burden of disease through preventive health programs at national, regional and local levels;

2. Health services
- ensuring all citizens, especially vulnerable groups, with an equitable access to quality and cost-effective health services;

3. Priority cross-measures for a sustainable and predictable health system
- Achieving an inclusive, sustainable and predictable health system by implementing priority cross- policies and programs;
- efficient health system through e-health solutions;
- developing adequate health infrastructure at national, regional and local level, in order to reduce inequities in accessing health services. [12]

The National Health Strategy 2014-2020 and the Action Plan have been adopted by the Government Decision no. 1028/2014, while the MoH Order no. 649/2016 with further amendments came to complement with the Frame Plan for Strategy monitoring and evaluation. [13]

On the other hand, health policies committed by the current political coalition in charge are presented in the health chapter of the Governance Program 2017-2020, framing a health system close to the citizen and their interests. Main deficiencies identified in this document refer to the health infrastructure, poor capacity for diagnostic and treatment, deficit of specialized personnel and low salaries, problematic access to medicines, insufficient funds for national health programs. Consequently, the document stipulates improvement measures as following: build nine 9 hospitals (8 regional and one republican hospital); modernize district hospitals, emergency units, specialty ambulatories and community integrated health centers; develop family medicine by equipment and professional training; replace the SMURD ambulances and also buy ambulances for villages; rehabilitate and equip school medical offices; develop telemedicine centers and e-health services; update the list of compensated drugs and national drug catalogue; ensure a free drug for all the patients registered in national programs, reimbursed according to clinical results; limit bureaucracy, develop and increase the financing of national health programs; significant increase of the salaries of medical personnel; develop an integrated information system for the public health. [14]

Health needs assessment in Romania

In Romania, in 2016, under the coordination of the Ministry of Health, the National School of Public Health, Management and Professional Development Bucharest (NSPHMPDB), in partnership with the National Institute of Public Health (NIPH), carried out a broad analysis of the needs of health services of the population. It aimed to assess the health problems at local, regional and national level, as well as highlighting the disparities in relation to the demographic structure and the specific morbidity data, in order to establish priorities for intervention and a way of allocating the resources that would allow reducing inequities and improving the health of Romanians.

Methodology. In the analysis, existing data and indicators for 2014 were used, usually collected by national, European and international institutions, bodies and organizations. These data were correlated with the results of the survey on the Health Status of the Population in Romania, conducted by the National Institute of Statistics in 2015. [15]

The data categories selected for the calculation of the indicators required for the evaluation [15] were relevant for:

• health status assessment;

• prevention, health protection and health promotion;

• the different healthcare segments (family medicine, outpatient clinic, outpatient recovery, pre-hospital emergency care, hospital, UPU / CPU Emergency Structures, home care and palliative care, community health care).

The methodology within the project "Planning and Regulation of the Health Care Services Delivery System", developed by Gesellschaft für Versicherungswissenschaft und Gestaltung E.V. (GVG), for Romania, funded by World Bank Project RO / 4568 - Reform of the Health Sector, in 2003-2004, was used in the assessment of service needs and the elaboration of regional plans. [15].

METHODOLOGICAL ALGORITHM AND RESULTS

Specifically, the following steps have been taken in the elaboration of the Regional Health Service Plans in accordance with the National Health Strategy 2014-2020 approved by the Government Decision - GD no.1028 / 2014 [15]:

1. *Identification and prioritization* of the intervention needs regarding the development of health services as a result of the analysis carried out at local and regional level.

The identification of intervention needs took into account the following:

The demographic and socio-economic profile of the population;

• Assessment of the health status and consumption of health services;

• Existing medical service providers (including human resources, organizations, infrastructure and endowments);

• Defining the necessary service providers, by type (necessary capacity, institutional arrangements, the role of the public and private sector) and focusing on the provider of the strategic national hospital network;

• Formulate the objectives, activities, outputs and resources needed for investment, and the costs needed to improve the delivery of health services by 2020;

• Formulate recommendations to improve the regulatory framework and planning data provided by health information systems, based on the objectives, actions and outcomes expected in the Action Plans.

Prioritization of intervention needs has taken into account:

• Technical capacity (infrastructure, equipment and personnel) and financial capacity for intervention;

• Type (areas) and degree of deficit at local and regional level, in relation to the proposed model of organization and functioning of health services;

• The priorities set by the Health Strategy 2014-2020.

2. *Identification of the resources* needed for the implementation of the interventions, at local and regional level.

The categories of resources targeted for the interventions were the following:

• human resources - specialists (doctors, nurses, community nurses, etc.), according to identified deficiencies (number, specialty, distribution in the territory);

• material resources:

  – infrastructure - necessary spaces and conditions, water supply, thermal and electrical energy supply;
  – endowment - equipment, installations, medical equipment, ambulances, etc .;

• financial resources:

  – Unused sources of funding;
  – The amount of funding needed to meet the identified needs and the proposed planning.

3. Inter-regional and inter-local harmonization (correlation) of the priorities established on the levels, areas, categories and timelines.

4. Elaboration of a unitary model of allocation of necessary resources (volume, deadline) for the implementation of interventions, at national level (national programs), regional and local level.

The proposed model, as a form of integrated organization and operation of health services, has taken into account established criteria and norms and achievement of at least 75% of the value of regional and national averages for selected indicators [15].

The norms used to estimate the deficits in the existing health services took into account staff (primary care, community assistance, ambulatory and palliative care), medical equipment (eg CT, PMN / inhabitants in the outpatient) and beds (palliative services) [16].

As regards hospital care, the following were proposed in the model [15]:

• Organization of hospital services in an integrated system at regional level, with the development of regional hospitals, based on a model of their functioning that will take into account the location, size, endowment and the necessary human resources;

• Construction of the first three regional hospitals (out of the eight) in Iasi, Cluj and Craiova;

• Decrease by approx. 30% of the number of cases of continuous hospitalization – acute cases, in the sense of: taking over the cases of chronic illnesses and recovering from the hospitals for acute in the appropriate structures for their care, orientation towards day and outpatient hospitalization, as well as reducing the unnecessary hospitalization;

• Reducing the number of continuous hospitalization beds - up to 4.5 beds / 1,000 inhabitants in 2020, with priority being given to basic specialties (internal medicine, pediatrics, obstetrics-gynecology, general surgery).

The methodological pillars for the elaboration of the eight regional plans on health services, as well as the synthesis of the actual analyzes and the resulting recommendations, are presented in detail and can be found in the Order of the Minister of Health no. 1376 of 6 December 2016 for the approval of Regional Health Service Plans [16].

In result, detailed demographic and health profile have been developed for each of the 8 regions comparative with national averages, analyzing: population structure by age groups, life expectancy at birth, population dynamics (birth rate, infant mortality, general mortality), morbidity per main categories of diseases in terms of incidence and prevalence, major social and behavioral determinants of health. A transversal analysis of secondary data registered in 2014 have then been performed on the following:

- population coverage with health / medical personnel (family doctors, specialist physicians working in clinic and paraclinic ambulatory, specialist physicians working in hospital), identifying deficit of medical doctors at the district and region level, in relation to normative criteria, population coverage with personnel for community medical assistance (community nurses and health mediators), deficit of health and medical personnel at the district and region level especially in rural areas marginalized in regard to normative criteria, deficit of medical / surgical specialists in hospitals, as well as villages without a medical doctor and the average number of inhabitants per doctor;

- situation of infrastructure and organizational resources, public and private providers (covering the population with general medical / family practice, medical and surgical specialty practices, clinics, medical laboratories, hospitals and hospital beds for acute care, chronic care, rehabilitation and palliative care, organizations of home care and palliative care), analyzing each medical specialty type of healthcare unit and identifying areas in deficit;
- utilization of health services on each level of medical care, analyzing district and regional averages in comparison with national averages: total number and average per inhabitant of medical consultations at family doctor and specialized ambulatory, number of day hospitalizations and continuous hospitalizations (per acute and chronic), type of hospital admissions and discharges, hospital bed occupancy rates, analysis of the length of stay, hospitalized morbidity, surgical coefficients for surgical specialties / hospital/ district/ region, intra-hospital mortality in 48 hours and 72 hours / hospital/ district/ region, mortality in 48 and 72 hours since admission per each specialty / unit from different hospital categories, situation of avoidable hospital admissions per specialties, pre-hospital and hospital emergency services, palliative care provided in comparison with specific needs, migration of patients between districts and regions, patient preferences for hospitals, differences between the use of services and normative needs, identifying services, specialties and areas in deficit.

CONCLUSIONS. In conclusion, the process of health policy making, building health strategies and planning health services in an informed, documented, adequate, effective and efficient, manner, require to perform periodically and use comprehensive health needs assessment of population. This assessment should consider major theoretical references and dedicated models provided by the literature and practical experience. Strategic and operational planning at all decision making levels should be based on health and healthcare needs analysis, despite the efforts involved.

Analyzing the methodology used in Romania for the health needs assessment performed in order to elaborate the Regional Plans of Health Services in 2016, to support implementation of the National Health Strategy 2014-2020, it becomes clear that the model built and applied is concordant with the principles and characteristics of a health needs assessment as described by the experts in literature, it is also very complex and comprehensive, requires a considerable effort of multiple data collection, check, clean, integration, processing and interpretation and will possibly encounter difficulties in implementation and coordination of the proposals / recommendations.

It is also remarkable the fact that decision makers have undertaken the outcomes of the assessment, and consequently proposals and recommendations formulated by experts, by approving and publishing them in a MoH Order published in the Official Monitory, the principal official publication of the Romanian state.

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