Update article

Essential Public Health Functions

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Public health is the science and art of promoting health, preventing disease and prolonging life through the organized efforts of society (1).

Public health is, therefore concerned with carrying out activities that address the determinants of health, protect a population's health and reduce burden of diseases of public health importance with the aim of improving the health and quality of life of populations and achieving a reduction of health inequalities. This wide scope of public health indicates that a population-wide perspective, stewardship of the health sector, a multidisciplinary workforce and a multi-sectoral approach should be the core features of public health.

Essential Public Health Functions (EPHF) are a set of actions or interventions that should be carried out specifically to achieve the central objective of protecting and improving the health of populations. Essential in this context is to denote fundamental, indispensable requirements to meet public health goals. It also indicates that it is the responsibility of the government of a country to ensure that these interventions are implemented.

EPHF were initially described by Yach (2) as a set of fundamental activities that address the determinants of health, protect a population's health, and treat disease. He described these public health functions as representing public goods and that the governments would need to ensure the provision of these essential functions, but would not necessarily have to implement and finance them. It is a social obligation for which the government through its national health authorities has an important role to play.

In many countries, especially in our region, public health systems are either not functioning optimally or are in a state of decline due to lack of resources, political commitment and leadership. Public health professionals are inadequately trained and are lacking in motivation and status within the system. There is a lack of strong national policies supportive of public health with an increasing share of the health budget going to clinical services.

With the need to improve public health services, defining EPHF was considered important as a means of focusing on public health services. It was noted that EPHF could also act as a framework for measuring the performance of nations, health departments and public health personnel in effectively delivering those functions with a view to improving the public health performance. Furthermore, defining such EPHF provide guidance in developing a framework for capacity building of public health personnel at all levels.

In recent years, several studies have focused their attention on defining EPHF. These include a study by the Pan American Health Organization (PAHO) (3), a study conducted by Centre for Disease Control (CDC), Atlanta (4), the WHO Delphi Study (5), a three country study in the WHO - Western Pacific Region (WPR) (6) and the most recent, the three country study in the South East Asia Region (SEAR) (7) which included Sri Lanka.

All these studies have focused on defining essential public health functions. However, there have been differences in the conceptual models that have been adopted by different groups.

The conceptual model adopted in the EPHF study in the Western Pacific Region, has been considered as a subset of interventions based on homogeneity of tasks required to be done (6). Each function includes several tasks and each task, several practices. Furthermore, each practice will produce certain outputs that take the form of programmes or services. In this context a function is defined as the mode of activity by which a thing fulfils its purpose. A practice is a repeated exercise in an activity requiring the development of skill while a service is the act of helping or doing work for another or a community. Each programme or service will produce outcomes that can be measured using appropriate indicators. The analysis of tasks and practices in a particular setting could indicate the competencies needed by the public health workforce.

The study conducted in three of the countries of the WHO, South East Asia Region adopted the above conceptual model by the study in the Western Pacific Region. Sri Lanka, Thailand and

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in Bangladesh were the countries included (7).
The Rapid Assessment Technique was used to gather information. Literature review on existing situation, key informant interviews among key public health personnel, survey among public health workforce, a community based survey, assessment of public health facilities and a SWOT analysis were the components that were included in the Rapid Assessment method that was adopted.

Given below are the EPHF that were identified along with the expected outcome in the latest study in SEAR. The tasks identified for each of the functions are also described.

Health status monitoring and analysis
Outcomes of this function are the measurement, monitoring and analysis of changes in health status, including quality of life and health inequalities and the acute and chronic disease burden. This function results in confidence that safeguards exist for the protection of the public's health and provides early warning of emerging problems.
The tasks identified for this function were assessing health status for the relevant geographical areas and specific high risk groups, analysing trends in health, analysing barriers in access to services, identifying threats to health and managing health information.

Epidemiological surveillance and disease prevention and control
The outcomes of this function contributes to improving health status and the quality of life, reducing health inequalities, safeguarding the public's health and reducing the burden of disease.
Conducting disease and outbreak surveillance of both communicable and non-communicable disease and associated risk factors, conducting surveillance of environmental hazards, investigating and controlling disease outbreaks , undertaking case finding, diagnosis and treatment of diseases of notifiable diseases, responding rapidly to control outbreaks and emerging health problems or risks and implementing mechanisms to improve surveillance systems and disease prevention and control were the tasks identified under this function.

Development of policies and planning in public health
The outcomes of this function are the development of policies and planning for the improvement of health status and quality of life, reducing health inequalities, safeguarding the public's health and reducing the burden of disease.
Developing policy and legislation for public health, developing plans to promote and protect public health, reviewing and updating regulatory frameworks and policy, advocacy for public health perspectives in health services planning, developing and tracking targets and evaluating policy were identified as tasks to be performed to ensure development of policies and planning in public health.

Strategic management of health systems and services for population health gain
The outcomes of this function contributes to implementation of strategies to improve health status and quality of life, reducing health inequalities, safeguarding the public's health and reducing the burden of disease.
The tasks identified for this function were promoting and evaluating access by all citizens to the health services they need, promoting multi-sectoral collaboration for interagency working , facilitating services to vulnerable groups e.g., disabled, youth, mentally diseased, advocacy on priorities of publicly funded health services using evidence to assess the health technology and interventions, managing public health services to address public health problems and preparing for disaster and emergency response by the health system.

Regulation and enforcement to protect public health
The outcomes of this function contribute to the development and compliance with regulation that improves health status and quality of life, reduces health inequalities, safeguards the public's health and reduces the burden of disease.
Implementing laws and regulations in public health, enforcing regulations, promoting compliance, reviewing, developing and updating regulations in public health were the tasks identified under this function.

Human resource development in public health
The outcomes of this function provide the workforce to improve health status and the quality of life, reduce health inequalities, safeguard the public's health and reduce the burden of disease.
The tasks identified for this function were maintaining an inventory of the human resource base including the professional skills and distribution, projecting workforce requirements in terms of quantity and quality, ensuring an adequate human resource base for public health activities, ensuring workers are adequately educated and trained with demonstrable certification and re-certification, coordinating between stakeholders in the design and delivery of training programmes, promoting continuing professional education, monitoring and evaluating

teaching programmes for public health personnel.

Health promotion, social participation and empowerment

The outcomes of this function make communities healthier by advocating for health and empowering citizens through access to relevant, high quality and effective information.

Creating supportive environments to promote healthy choices, advocating for health by building coalitions, working inter-sectorally in health promotion programmes. empowering communities and citizens to change lifestyles and playing an active role in changing community behaviour change, facilitating and convening partnerships among groups to promote health, communicating through social marketing and media communications, providing accessible health information resources at community levels were the tasks identified under this function.

Ensuring quality of public health services

The outcomes of this function ensure the quality of public health services to improve health status and quality of life, reduce health inequalities, safeguard the public's health and reduce the burden of disease.

Developing appropriate standards for quality and monitoring and designing improvements in quality were the tasks identified for this function.

Public health and health systems research

The outcomes of this function contribute to innovative ways to improve health status and quality of life, reduce health inequalities, safeguard the public's health and reduce the burden of disease.

Tasks that were included in this functions were developing a research agenda, identifying funding, ensuring appropriate ethical safeguards, encouraging participation between public health agencies, workers and organizations in the research agenda and programmes and developing research programmes to solve the identified problem.

Disaster and emergency preparedness and response

The outcomes of this function contribute to effective management of disaster to improve health status and quality of life, reduce health inequalities, safeguard the public's health and reduce the burden of disease.

Preparing disaster management plan, identifying priority threats and situations for the country, trying responses to priorities in plan, planning activities to address (resource and skill) gaps in plan, ensuring adequate support facilities for response e.g., quarantine facilities, ensuring supplies for prevention of the spread of disease e.g., drug prophylaxis supplies, ensuring effective disease and outbreak surveillance and investigation and ensuring effective communication infrastructure and pathways were the tasks that included in the function of disaster and emergency preparedness and response

It is expected that this study and follow-up would result in much-needed sensitisation to public health among policy-makers and the workforce. It would also enable the identification of gaps and shortcomings in the workforce and services provided and assist in developing institutional capacities and designing necessary interventions. The identified tasks for each of these EPHF in a particular setting indicates the competencies needed by the public health workforce. Therefore, competency assessment based on EPHF is expected to act as the basis for capacity-building in both pre-service and in-service settings. Furthermore it will be useful in highlighting the importance of EPHF and the urgent need for support both from governments and funding agencies. Effectiveness of this approach in improving public health services needs to be evaluated.

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