



## ABSTRACT

Plentiful of healthcare practice is based on a disease/treatment approach rather than a prevention one. That is, the predominant focus is on treating existing symptoms and conditions that bring the patient to healthcare setting. There is no doubt about the significance of this approach for acute conditions, but there is some question whether this is the most efficient and effective way of distributing healthcare for increasing number of diseases and limited resources.

The evidences from everywhere have showed the profound cost benefit of prevention in healthcare practice. Healthy community,

therefore, is the ultimate aim in any health services planning. The priority of care giver is shifted now to promote health and prevent disease in any stage (susceptible, subclinical, clinical and recovery/disability) before death, and in all situations, as health status cannot remain constant for an individual, family, community or country over a period of time.

**Corresponding Author:** Professor Family & Community Medicine Department

yousifkindi@yahoo.com  
Alkindy College of Medicine University of Baghdad

## INTRODUCTION

In recent years, although life expectancy has increased dramatically all over the world, millions of preventable deaths are yearly recorded <sup>(1)</sup>. In Iraq, a 2017 ministry of health report showed that more than half of all deaths were due to preventable circumstances. There were 142766 deaths which constituted 4.1 per 1000 of the total population. Chronic non-communicable diseases (cerebrovascular diseases, cardiovascular diseases, chronic respiratory diseases, malignant diseases, unintentional injuries, and diabetes), are the top causes <sup>(2)</sup>. They are all preventable as these diseases extremely shaped by the lifestyles and practices of people <sup>(3)</sup>. Preventive healthcare practice defined as that part of practiced medicine concerned with the maintenance and promotion of health and the reduction of risk factors that result in injury and disease <sup>(4,5)</sup>. Thus, preventive care services are extending along the spectrum of health beyond a single visit to a physician. Also, it can be delivered by different healthcare personnels e.g. health educators, and in a variety of places, e.g. schools, through public health programs. That why these services must be planned carefully and implemented comprehensively by all healthcare providers (team work) forward

with all medical specialties even when pure clinical intervention is needed <sup>(6)</sup>.

In the last fifty years, the spectrum of preventive activities has been classified into three main classes: primary, secondary, and tertiary. Primary prevention activities are practiced in advance to avoid the occurrence of a disease or adverse event. Most of these activities depend on healthy life style, and their outcomes are best recognized when applied on population level <sup>(7)</sup>. The first part of primary prevention is health promotion activities, which are daily, non-clinical life style dependent. These activates do not target a specific disease or condition but rather promote health and comfort on a public level, e.g., eating healthy food and practicing sport, that both prevent disease and generate a sense of overall welfare. Health care providers must focus to build healthy habits even when it's not convenient. The advice for the clients is to maintain a healthy lifestyle which can be achieved with few sacrifices in eating and doing. Avoiding damaging substances like tobacco, alcohol and excessive amounts of eating, especially fat, sugar and salt, are vital. Changing the sedentary practices, escaping from prolong sitting hours with mobile, TV, and computer, and getting enough sleeping hours each night. On the

other hand, the second part of primary prevention is specific protection. It targets a specific type of diseases. These include routine immunization programmes, prophylaxis medications... etc., all aiming to prevent the occurrence of specific disease or health event <sup>(8)</sup>.

Secondary prevention is the next level of preventive healthcare practice. It is focused on early detection of a disease or condition in an asymptomatic stage and endeavors to prevent the progression to symptomatic disease. So, identifying "early diagnosis" and managing "prompt treatment" of disease as soon as possible will preserve health as most of diseases when are diagnosed early can be cure without residual pathologies, and return to full health occurs rapidly <sup>(5)</sup>. Secondary prevention also aims to prevent the spread of disease to other individuals, and limit the expected disability to prevent potential future inactivity and dependence. These activities can be practiced at population level as in disease screening (cancer, hypertension, diabetic, etc.), or at individual level as in periodic health examination <sup>(3)</sup>. For example, early diagnosis and prompt treatment for a tuberculous patient would consist of a course of DOTS therapy to destroy the pathogen and prevent the damage to lung tissue and progression of disease as well as the spread of the disease to the contacts.

Tertiary prevention, the late level, is attempted to modify adverse consequences of already establishing clinical disease and rehabilitative activities to prevent the recurrence with full adaptation to current status. The aim is to improve quality of life by reducing disability, limiting or delaying complications, and restoring function by focusing on mental, physical, and social restoration and rehabilitating. For example, rehabilitation for tuberculous patients includes measures to prevent complete disability from the disease, such as implementing home and work-place adjustments or providing facilitating measures to restore normal daily functions to the greatest extent possible <sup>(9)</sup>.

In recent years, other two levels of prevention has been established as a separated activities. The first, primordial prevention, is based on early childhood

intervention to prevent the risk factors as early as possible in group of population e.g. physical activity program for primary schools to prevent obesity. The second, quaternary prevention, is based on the concept of protection of the patient from adverse effects of medical intervention and over medicalization <sup>(10, 11)</sup>.

Each of the above preventive approaches has a significant role to play in any attempt of disease prevention. However, it is logically approved that upstream approaches, e.g. primordial and primary prevention, generally tend to be cheaper and more efficient, and they end with lower morbidity, disability, and mortality rates <sup>(7)</sup>. But, an important question rises about the changes that are necessary in a number of places to facilitate the application of preventive healthcare as a main system and push forward to the practice of preventive medicine. Identification and break down of barriers is the main first step in this movement. Changes will be necessary to start form the top of the health care system down in the ladder to healthcare provider in a primary healthcare center.

But, as expected, many reasons will present and hindered the practice of preventive medicine. Resistance to change is first on the list of barriers to implementing change in any circumstances. In a medical practice, in which teamwork is essential, it is important to predict the sources of resistance and develop strategies to work around them. These include physician barriers, patient barriers, and health system barriers. More evidences are needed to identify the specific obstacles in each part that lead to malpracticing of the preventive approach. And, in a community where health literacy is still a common problem, this is not a minor issue.

## REFERENCES

- 1- WHO Documents, The top 10 causes of death may 2018. Available at <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>. Date of access 17/11/2019.
- 2- Mistry of health Iraq. Annual statistical report 2017. Available at <https://moh.gov.iq/>. Date of access 2/9/2019
- 3- Brotons C, Bulc M, Sammut MR, et al. Attitudes toward preventive services and

- lifestyle: the views of primary care patients in Europe. The EUROPREVIEW patient study. *Fam Pract.* 2012;29 (Suppl 1):i168–i176.
- 4- Chung S, Romanelli RJ, Stults CD, Luft HS. Preventive visit among older adults with Medicare's introduction of Annual Wellness Visit: Closing gaps in underutilization. *Prev Med.* 2018 Oct;115:110-118.
  - 5- Kottke TE, Solberg LI, Brekke ML, Cabrera A, Marquez MA. Delivery rates for preventive services in 44 midwestern clinics. *Mayo Clin. Proc.* 1997 Jun;72(6):515-23.
  - 6- Smith RA, Andrews KS, Brooks D, Fedewa SA, Manassaram-Baptiste D, Saslow D, Brawley OW, Wender RC. Cancer screening in the United States, 2017: A review of current American Cancer Society guidelines and current issues in cancer screening. *CA Cancer J Clin.* 2017 Mar;67(2):100-121.
  - 7- Martins C, Godycki-Cwirko M, Heleno B, Brodersen J. Quaternary prevention: 12- reviewing the concept. *Eur J Gen Pract.* 2018 Dec;24(1):106-111.
  - 8- Denise Y. S. Tam, corresponding author<sup>1</sup> Yvonne Y. C. Lo,<sup>2</sup> and Wendy Tsui<sup>1</sup> Knowledge, practices and expectations of preventive care: a qualitative study of patients attending government general outpatient clinics in Hong Kong *BMC Fam Pract.* 2018; 19: 58. doi: 10.1186/s12875-018-0740-7
  - 9- Gillman MW (2015). "Primordial Prevention of Cardiovascular Disease". *Circulation.* 131 (7): 599–601. doi:10.1161/circulationaha.115.014849. PMC 4349501. PMID 25605661.
  - 10- Chiolero A; et al. (2015). "The pseudo-high-risk prevention strategy". *Int J Epidemiol.* 44 (5): 1469–1473. doi:10.1093/ije/dyv102. PMID 26071137.
  - 11- Kuehle T, Sghedoni D, Visentin G, et al. Quaternary prevention: a task of the general practitioner. *Prim Care.* 2010;10:350–354.