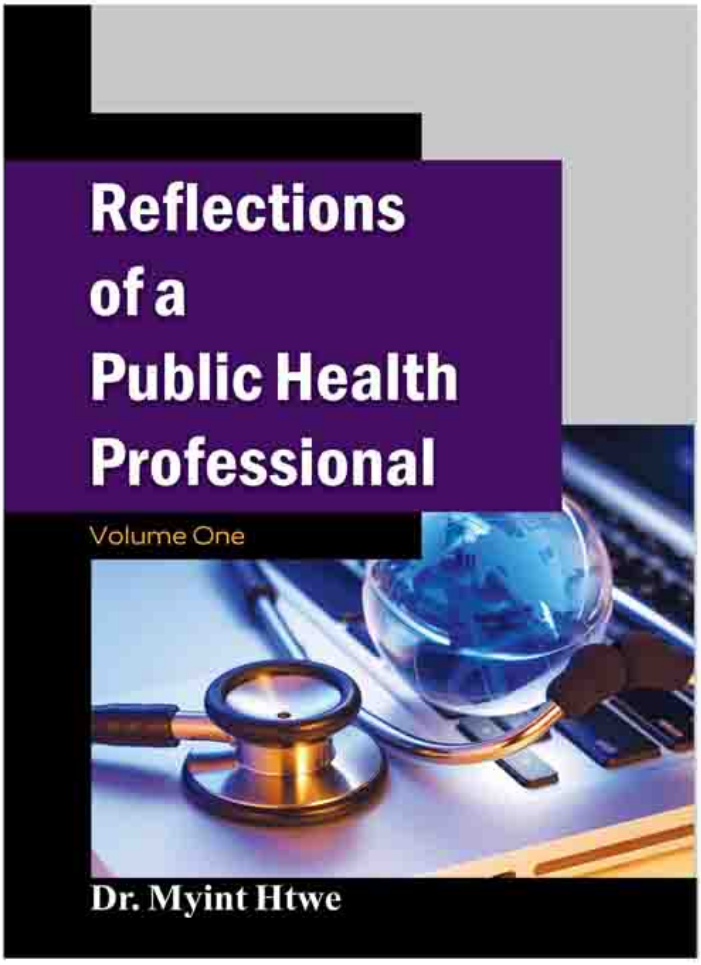
Public Health Approaches and Epidemiologic Thinking



Dr Myint Htwe

10. Public health approaches and epidemiologic thinking

Public health approaches and epidemiologic thinking always go hand in hand. Practicing public health approaches without applying epidemiologic thinking is doomed to fail, programme costing will be high, the impact will be less and sustainability of the programme is questionable.

Public health approach connotes “considering the whole community or area or region or the whole country, involving all collaborating partners and stakeholders, working collectively with various disciplines and sectors, mindful of culture, customs and habits of people, and working systematically along set objectives and strategies, taking into account of epidemiologic triad *(external agent, susceptible host, environment including vector)* in the context of time, place and person”.

It is a comprehensive approach to tackling public health issues or problems or conditions. It is different from the clinical approach where the main objective is to treat sick people, cure the disease and rehabilitate them. Public health approaches are generally implemented in a *step-wise and phase-wise manner* based on a rational plan with clear-cut objectives and goal.

Improving the overall health status of the population can only be achieved if we apply public health approaches or interventions. Building more hospitals is only one of the supporting avenues to supplement public health approaches. If the country has a strong public health domain by way of practicing good public health approaches, it is bound to achieve the objective of improving the health status of its population.

One additional point that is worth mentioning is, "*If public health approaches are practiced within the gamut of principles of public health ethics, it would become the best public health approaches ever practiced”.*

Epidemiologic thinking is more than an analytical thinking where a particular issue is considered from the perspective of getting results or inference by doing analysis on the available data or information. In fact, analytical thinking is a very simplified and straightforward form of epidemiologic thinking.

Epidemiologic thinking is a basic reasoning pattern of every seasoned public health professional or epidemiologist. Epidemiologic thinking perceives a scenario from different perspectives or angles or planes, and comparing it with different or similar scenarios, observing various controlling or determining factors leading to the scenario at hand. It also includes noting trend pattern of the scenario at hand, identifying the most important controlling or determining or interacting or facilitating factor, and its impact on the surrounding environment.

Epidemiologic thinking is commonly applied in management and control of disease outbreak or epidemic, in-depth scenario review, programme development and management, formulation of health policy and strategy, etc. The domain of epidemiologic thinking is wider than systems analysis. Epidemiologic thinking is essentially dynamic and reasoning pattern in epidemiologic thinking should also be in line with the changing epidemiological scenario.

Upcoming epidemiologists and public health professionals need to inculcate and nurture epidemiologic thinking through one-to-one intensive discussion, all-inclusive group discussion, brainstorming, debating, triangulation, in-depth focus group discussion, etc. Epidemiologic thinking is one form of skill, which all public health professionals and epidemiologists have to strive for acquiring it over the years. There is *always a room for improvement.* A reputable epidemiologist or seasoned public health professional possesses sound epidemiologic thinking skill. We all should try to improve our epidemiologic thinking skill as we go along in improving the domain of public health.

(NB. This is the updated version of the article, which appeared in the Bulletin of Preventive and Social Medicine Society, Volume 1, Number 1, September 2014.)