Information system as an effective force against h1n1

Public health leaders and communities face extraordinary challenges when a novel influenza virus emerges. Timely data and information are needed in order to make containment decisions, prioritize antiviral and/or vaccine distribution, deploy personnel and communicate with industry experts and the public. Arguably, pandemics that occurred before the 2009 H1N1 outbreak were more devastating because we lacked the benefit of information technology to, swiftly and in real time, gather data from diverse locations and process them into information that would guide public health leaders to decisively confront the problem.

Application of the combination of business intelligence, information systems, the internet and the World Wide Web offers an opportunity to gather geographic- and location-related data, in real time, to better understand regional and local health trends. These systems have been applied in assessing risks, evaluating treats, maintaining situational awareness, documenting disparity, notifying communities and ensuring focused allocation of resources such as vaccines and antivirals.

According to Salinksy and Gursky, “ the most important building block for improving disease surveillance and timely outbreak response, and for optimizing efficiencies in public health’s traditional community-based programs and delivery of personal health care services, will be realized through electronic information systems. The gains in accuracy, effectiveness, resource tracking, and cost savings (to name a few) clearly justify sound and robust investments in the implementation of information technology (IT) solutions throughout the entirety of the public health sector.

However, while information technology has enhanced the tracking of outbreaks in real-time, it has also served as an efficient vehicle of rumors and misinformation through social virtual networks. An Influenza outbreak is transboundary and does not respect any territorial or geographical boarders. Unfortunately, there are surveillance gaps in many underdeveloped parts of the world. This is because information technology is underused due to affordability, adaptability and low level of awareness. Our global interconnectedness through trade and transportation, in spite of its numerous advantages, has not helped the matter.

It has allowed infectious diseases to spread greater distances, pass more easily between humans and animals and evolve into new and more virulent strains. The incubation periods of some infections are such that those infected go symptomless for days and the effect of information systems on an outbreak may only be as good as timely disclosure of symptoms to health officials. EMA’s business intelligence/information technology application could be the magic wand in the timely detection and containment of flu outbreaks if expanded, or made to support a much wider surveillance program.