EDITORIAL

Utilization of surveillance systems for guiding health interventions

Yemane Berhane[1]

The need for a better surveillance system in public health has become increasingly obvious in recent years (1). A lot of progresses have been achieved in utilizing surveillance systems to provide guidance for appropriate public health actions in the developed world. In the contrary, surveillance systems in many developing countries are in their infancy at best. Thus, public health actions are not properly guided and monitored by context related evidences.

Surveillance systems are many in kind and can be developed to suit specific goals. There are creative but unusual types of surveillance systems that can be useful in a particular context. The paper by Reniers et al demonstrates the usefulness of burial surveillance in monitoring the HIV/AIDS epidemic in areas where death registration is non-existent (2). In Ethiopia where almost all deaths are occurring at home and there is no official death registration system the burial surveillance can provide useful information in monitoring mortality trends from a recognized cause or in identifying sudden changes in age-sex specific mortality trends there by improving detection of unusual patterns. Burial surveillance can also provide substantial evidence about the effectiveness of interventions. For example, a decline in the number of burial after the introduction anti-retroviral therapy (ART) indicates the scale and effectiveness of the care and treatment program in a specific locality.

Community based demographic and health surveillance systems have also been providing critical evidences in support of advancing disease prevention and control efforts. In Ethiopia two demographic surveillance sites have been operational for many years. The Butajira Rural Health Program (3) in south-central Ethiopia that was established in 1986, and Dabat Rural Health Project (4) in the northern Ethiopia that was established in 1996 have been providing platforms for generating strategically useful health information and they have also played a significant role in strengthening public health human resource training programs.

The Butajira site recently utilized the mortality data in a more meaningful way by incorporating a verbal autopsy (VA) procedure in its surveillance system and by utilizing a new tool, InterVA, for making standardized interpretation. The InterVA model (5) provides cause-specific mortality information based on VA interviews conducted by trained lay data collectors. In countries where majority of the deaths are occurring at home and accurate medical diagnosis of deaths can not be obtained (6) the usefulness of the InterVA model in the effort to reduce untimely deaths is unquestionable. The InterVA model is much less labor intensive and also offers complete consistency of interpretation, compared with physicians. The later quality allows comparing mortality patterns between different populations.

The surveillance systems described above if properly understood and utilized can offer chances to improve health interventions and improve efficient utilization of meager resources in developing countries. Although health services coverage is increasing the routine disease surveillance system based on heath institutions can not be sufficient to provide mortality trends at population level.

In conclusion, efforts must be strengthened to support the development of surveillance systems in strategic locations in order to make health interventions evidence based from the outset and strengthen tracking of progress in order to properly document the impact of health interventions. Such efforts are particularly important in resource-poor countries where the disease burden is high and the demand for more resources is ever increasing. It is also absolutely

---

[1] Department of Community Health, Faculty of Medicine, Addis Ababa University P.O. Box 2077, Addis Ababa, Ethiopia

important to consider all available data sources and surveillance systems in planning and monitoring health interventions at all levels as such sources of data are limited. If surveillance systems are not utilized timely there will be little incentive to improve and maintain them. Utilization of those data encourages continuous quality improvement and expansion of data sources to meet the demands of the expanding health programs and to track progress of national and international targets.

Reference

1. Stansfield S. Structuring information and incentives to improve health. Bull World Health Organ. 2005;83(8):562.
2. Reniers G, Araya T, Sanders E. Life table estimates of adult HIV/AIDS mortality in Addis Ababa. Ethiop. J. Health Dev. 2006;20(1):3-9.
3. Berhane Y, Wall S, Kebede D, et al. Establishing an epidemiological field laboratory in rural areas- potentials for public health research and intervention. Ethiop. J. Health Dev. 1999;13(Special Issue):1-47.
4. Fantahun M, Kumbi S, Degu G et al. Dabat Rural Health Project, North West Ethiopia. Report of the baseline survey. Dabat.. Ethiop. J. Health Dev. 2001;15(Special Issue):1-27.
5. Fantahun M, Fottrell E, Berhane Y, Wall S, Högberg U, Byass P. Assessing a new approach to verbal autopsy interpretation in a rural Ethiopian community: the InterVA model. Bulletin of the World Health Organization 2006;84:204-210.
6. Lulu K, Berhane Y. The Use of Simplified Verbal Autopsy in Identifying Causes of Adult Death in Predominantly Rural Population in Ethiopia. BMC Public Health 2005;5:58