

*Developing a Reliable and Sustainable Strategy for Measuring and Monitoring the  
Probability of Dying from CVDs in Ghana*

Prepared by

Ghana Statistical Service

## **Developing a reliable and sustainable strategy for measuring and monitoring the probability of dying from CVDs in Ghana**

**Background:** The global burden of cardiovascular disease (CVD) has been increasing overtime. At the beginning of the 20<sup>th</sup> century, CVD accounted for less than 10 percent of all deaths worldwide. The increasing burden of (Cardiovascular Disease) CVD in Ghana has long been recognized, and led to a passionate plea by de-Graft Aikins in the 2007 Ghana Medical Journal. According to the WHO, CVD is one of the top two causes of death in Ghana, after diarrhoeal diseases (WHO, 2010). In Accra, CVD rose from being the seventh and tenth cause of death in 1953 and 1966 respectively to the number one cause of death in 1991 and 2001, a trend which has continued till date, and is now the major cause of mortality in the country (Agyemang et al, 2012).

**Brief Facts:** In a study of the pattern of cardiovascular disease (CVD) mortality among the autopsy cases recorded by the Department of Pathology of the Korle Bu Teaching Hospital (KBTH) in Accra over a 5-year period (2006-2010), it was revealed that among the 19,289 complete autopsy cases identified, deaths due to CVD accounted for about one-fifth (22.5%). The results of study further show that the proportionate mortality ratio (PMR) for CVD increased with age, rising steeply in mid-life to a peak at very old ages, accounting for almost 50% of deaths examined by age 85 years. Although the data are not population-based, the age pattern of CVD mortality shown in the study may provide a fair idea of the burden of CVD in Accra.

**Indicator:** Recent estimate of the probability of dying from cardiovascular disease, cancer, diabetes, or chronic respiratory disease between ages 30 and 70 stands at **27 percent** (WHO, 2013).

Despite this disturbing trend, not much has been done to address the national burden of Non-Communicable Diseases (NCDs), including CVD (Agyeman et al, 2012). One key reason given for the lack of progress is the longstanding misconception that NCDs do not pose a significant public health challenge in comparison with infectious diseases, resulting in governments and non-governmental organizations focusing their attention on communicable diseases.

**Way Forward:** Ghana currently lacks a nationally representative population-based data on deaths and causes of deaths. Even though the Registration of Births and Deaths Act of 1965 (Act 301) provides for the registration of births, foetal deaths and deaths and makes it compulsory to register births and deaths in Ghana, with each death having a medically certified cause of death, only 65 percent of births and 25 percent of deaths are currently registered, with slight improvements observed over time.

To assist in health planning and efficient delivery of services, the Ministry of Health and the Ghana Health Service has established Demographic Surveillance Systems in three districts in the southern, central and northern parts of the country and these are managed by the Dodowa, Kintampo and Navrongo Health Research Centres. Apart from generating data for the continuous monitoring of births, migration and deaths in the three districts, verbal autopsies are collected on all reported deaths and coded by assigned medical officers in these health research centres. These verbal autopsies provide good statistics on the causes of death in the three districts which have had significant impact on health policies in the country.

The Demographic Surveillance System would have proven to be a good source of cause of death data in Ghana if all districts were able to implement such a system. Unfortunately, surveillance systems are expensive to develop and maintain, especially considering that Ghana currently has 216 districts, the lowest administrative units in the country. Hence, despite the efforts made by some districts (e.g., Nkwanta and Abura-Asebu-Kwamankese districts) to replicate the surveillance system, lack of funding has thwarted their efforts. In the absence of such a resource, special studies have been conducted by researchers who are desirous of answering specific research questions. Others have exploited the existing Demographic Surveillance Systems to address their research questions.

In order to obtain fairly useful national-level estimates on CVD mortality, it may be prudent for Ghana to start, in the interim, with the compilation and collation of administrative data (i.e., autopsy cases recorded in the logbooks of the Pathology Departments in all the major hospitals across the country). However, this requires good estimation of the size of the population by age group and sex to serve as the denominator for the proposed indicators as well as good coordination of the hospitals involved. The strategy will also not provide a complete picture of the health situation in the country since less than 70 percent of the population seek care from health practitioners when ill.

In the long term, however, an alternative but effective and sustainable system is required to generate nationally representative estimates of the causes of death. It is clear that improvement in the existing vital registration of births, deaths and causes of death in Ghana at the national, regional and district levels, facilitated by the continuous recording of events at the community level will result in a comprehensive, reliable and accurate system that will ensure a continuous, permanent and sustainable way of monitoring and measuring fertility, mortality and cause of death mortality in the country disaggregated by the basic characteristics of the affected individuals.

In response to the call by African Ministers of Civil Registration and Vital Statistics on African Governments to improve to improve their CRVS systems, Ghana carried out a comprehensive

assessment of its existing Civil Registration and Vital Statistics (CRVS) system between October and November, 2014 under the supervision of a high-level inter-agency coordination committee, made up of 11 stakeholder institutions (namely Births and Deaths Registry, Ministry of Health, Ghana Health Service, National Identification Authority, Electoral Commission, Ghana Statistical Service, Judicial Service Ministry of Local Government and Rural Development, Law Reform Commission, Regional Institute for Population Studies, and the National Development Planning Commission). For the assessment, eight task teams of four each were constituted to work in the following thematic areas considered to be of relevance to CVRS in Ghana: Policy and Legal Framework, Operation and Practices in Birth Registration, Recording and Processing of Deaths and Causes of Death, Operations and Practices in Marriage, Operations and Practices in Vital Statistics Production, Demand and Use of Civil Registration Products, Operations and Practices in Divorce, and Operations of Demographic and Health Surveillance Research Centres).

Based on the assessment report, which is currently being prepared, a Strategic Plan for improving the CRVS system in Ghana will be prepared and presented to Cabinet for approval, followed by advocacy, fund-raising and implementation of outlined activities in the Plan. The successful implementation of the strategy will require the cooperation of key stakeholders, particularly the Ghana Health Service and the Ministry of Health, as well as strengthened technical capacities in the coding of causes of death using the most current International Classification of Diseases (ICD) codes and the analysis of the data generated by the Civil Registration and Vital Statistics system. The benefits of an improved CRVS system on statistics production, governance and the individual's legal identity cannot be over emphasized.

## References

Agyemang C, Attah-Adjepong G, Owusu-Dabo E, de-Graft Aikins A, Addo J, Edusei AK, Nkum BC, Ogedegbe O. Stroke in Ashanti Region of Ghana. *Ghana medical Journal*, 2012;46:12-17.

de-Graft Aikins A. Ghana's neglected chronic disease epidemic: a developmental challenge. *Ghana Med J* 2007;14:154-159.

World Health Organization. The World Health Report on Global Health and Causes of Deaths 2010. Geneva: World Health Organization 2010.

Olutobi A. Sanuade (MPhil), John K. Anarfi (PhD), Ama de-Graft Aikins (PhD), Kwadwo A. Koram (MD, PhD) Patterns of Cardiovascular Disease Mortality in Ghana: A 5-year Review of Autopsy cases at Korle-Bu Teaching Hospital. *Ghana Med Journal*