The Global Fund

Information Note

Global Fund investments in mortality data systems, analysis and use

15 June 2017

A. Rationale

National programs should be supported to strengthen systems and tools that would generate quality data for tracking progress and impact of disease control efforts. Mortality is a key indicator of program **impact and service quality**. A decline in population-level mortality, in the absence of a strong alternative explanation, serves as a compelling evidence of impact of programmatic efforts. Likewise, a declining death in a treatment cohort (e.g., patients on ART, DOTS) shows an improvement in the quality of care. Mortality and causes of death data could be obtained through various means, such as census and household surveys, but the most preferred source is Civil Registration and Vital Statistics (CRVS) system.

Accurate vital statistics and the ability to monitor and respond to causes of death play a critical role in the control of major killer diseases such as HIV, TB and malaria. However, despite the well-documented benefits of CRVS, many countries do not have adequate systems in place. More than half of WHO Member States currently produce either no data on mortality and cause of death or data of poor quality that are of little value for public health policy and planning. Non-functional or weak CRVS systems in more than 100 developing countries means that up to 80%t of deaths that occur outside of health facilities and two-thirds of all deaths globally are not captured. The weakness of CRVS systems has been described as the 'scandal of invisibility"[1]

Notwithstanding these shortfalls, the current global momentum is encouraging. We have a global stagey with targets and timelines (Table 1)[2]. We have active and functional global health data collaborative (HDC) and a global CRVS group. Regional momentum and progress is strong, with good progress made in Latin America and significant ministerial commitments in Africa, Asia and the Pacific, and the Middle East. Regional strategies are developed and are being rolled out.[3,4] Some countries have seen remarkable improvements in CRVS systems in recent years.

[1] Setel et al 2007 'Who Counts? A Scandal of Invisibility: making everyone count by counting everyone', The Lancet, 370(9598):1569-1577.
[2] Global CRVS scaling up investment plan 2015-2024.
[3] For example, "Improving Mortality Statistics in Africa: Technical Strategy 2015-2020"
[4] Regional Initiatives: **a) Asia-Pacific**: Regional partnership coordinated by United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) & WHO, and supported by Asian Development Bank; **b) Africa**: Africa Programme on Accelerated Improvement of Civil Registration and Vital Statistics System (APAI-CRVS) - Coordinated by United Nations Economic Commission For Africa (ECA) and African Development Bank (ADB); **c) LAC:** Civil Registration and Identity Management funded by the Inter-American Development Bank (IDB)

Figure 1. Current State of Mortality Data

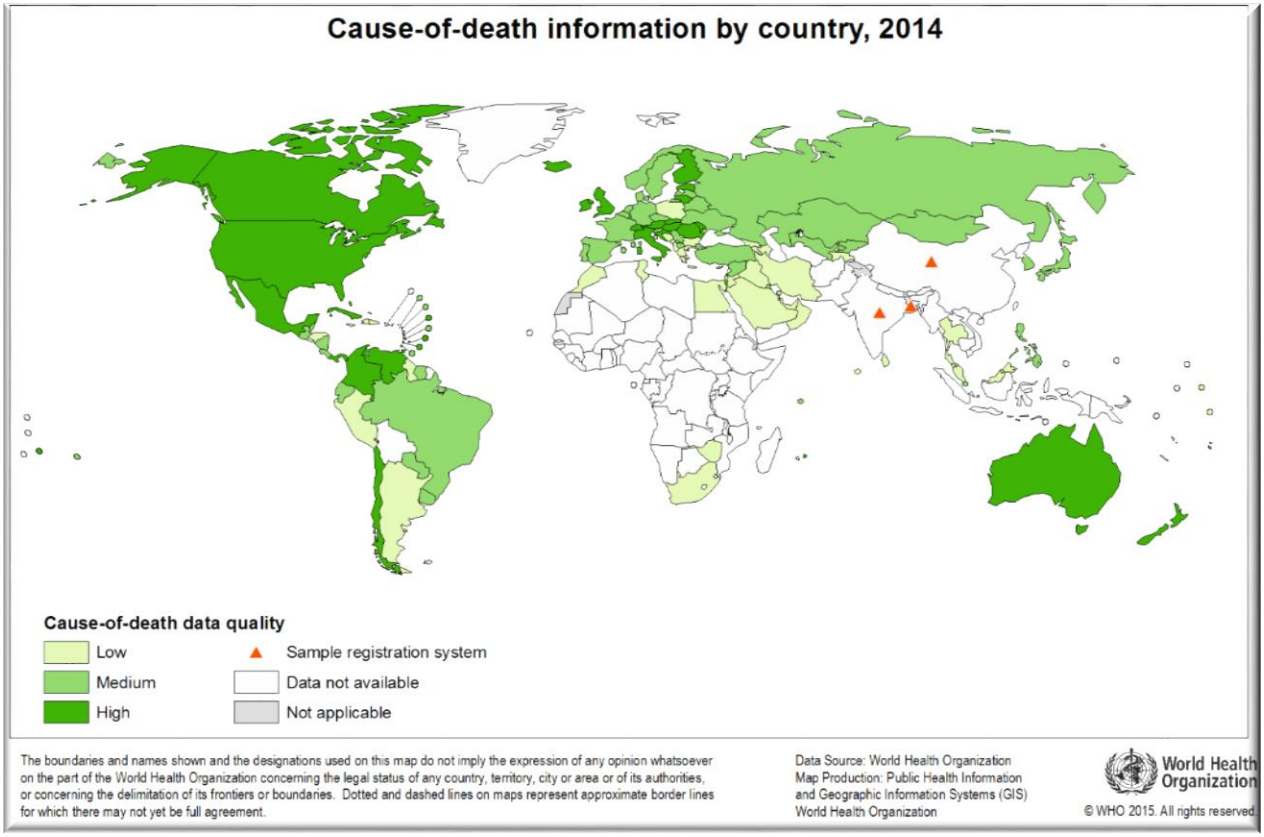


Table 1: Global CRVS scaling up plan

	2020	2025	2030
Births in given year are registered	80%	90%	100%
Children whose births are registered have been issued certificates	70%	85%	90%
Deaths in given year reported, registered, and certified with key characteristics	60%	70%	80%
Maternal and newborn deaths reported, registered, and investigated	80%	90%	100%
Deaths in children under 5 reported, disaggregated by age and sex	60%	70%	80%
Cause of deaths in hospitals reliably determined and officially certified	80%	90%	100%
Countries have community assessments of probable cause of death determined by verbal autopsies using international standards	50%	65%	80%

Source: World Bank-WHO 2014. Global Scaling up CRVS Plan

B. Investments to strengthen mortality and cause of death statistics

The World Health Organization promotes three **key investment areas** to improve mortality data collection and statistics:

i. Register all deaths by age, sex and location

ii. Record and register all hospital deaths with causes of death

iii. Identify and report deaths and their probable causes at community level

Following are the key principles for investing for better mortality data:

- *Design and plan for improvements in mortality collection***.** Reporting available data, even if incomplete, will help with planning better system design.
- *Invest in a system* –investment should be based on the best benefit to the system as a whole.
- *Invest for sustained acceleration* - that the investments should accelerate and sustain improvements for the recording, compilation and analysis of mortality & causes of death.
- *Monitor data and results* – monitor the progress of outcomes needed for the best country (and global) data – the recording of all deaths, and all causes of death

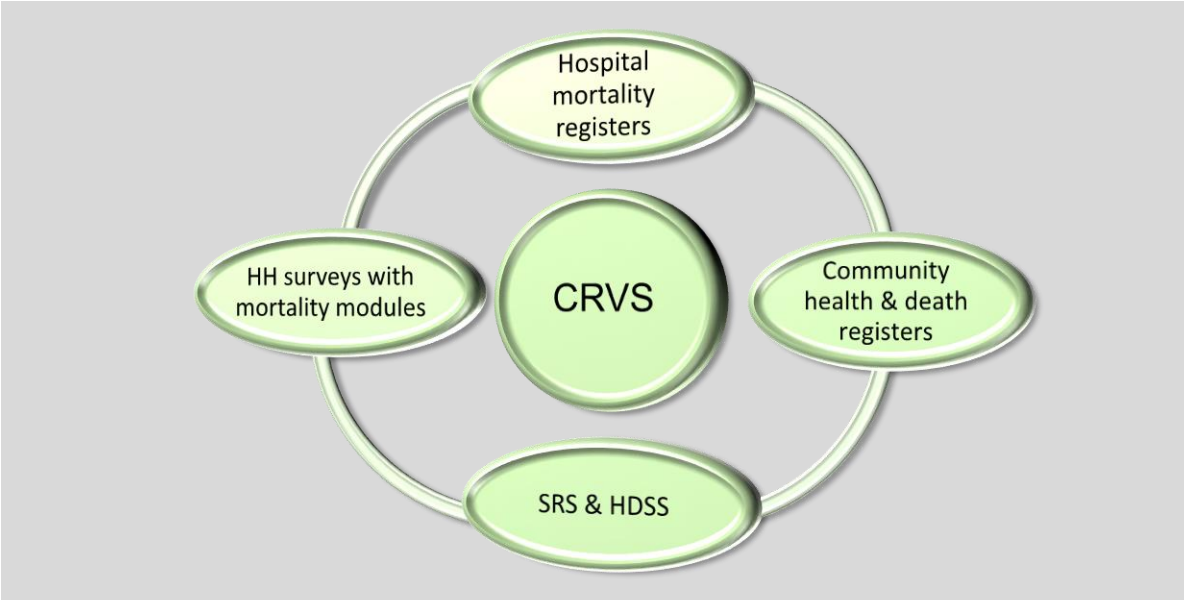
C. Global Fund investments in CRVS- Progress to date

With investing for impact as its core principle, the Global Fund has been in the forefront in supporting countries to determine the extent to which **investments in disease control programs have been translated into saving lives**. However, owing to inadequate investment in mortality data systems, limited reliable data and analytical capacity, assessment of mortality impact of program scale-up has mostly relied on indirect estimation and modelling exercises. Cognizant of this, and as part of the overall health system strengthening efforts, the Global Fund has since recently been proactively encouraging its priority grant recipient countries to invest in systems and tools that would enable **generation, analysis and use of mortality data for program planning as well as impact and service quality monitoring**. The ongoing mortality analysis work in 17 priority countries, supported through the Global Fund special initiatives in country data systems, is one such example.

In collaboration with many partners[5], the Global Fund has worked on developing country analytical capacity for mortality and causes of death reporting, including through two rounds of training workshops and ongoing follow-up and support for in-country analysis. Through special initiatives on country data systems, countries are being supported to carry out **mapping of all relevant in-country data sources and analysis of mortality and causes of death** data from health facilities, community vital registers, sample registration system, surveys and surveillance sources (Fig 2).

[5] WHO, KNCV, Gates Foundation (through LSTMH), Ifakara Health Institute, UNAIDS, United National Economic Commission for Africa (UNECA), African Symposium for Statistical Development (ASSD), World Bank and other partners

Figure 2: Mapping mortality data sources



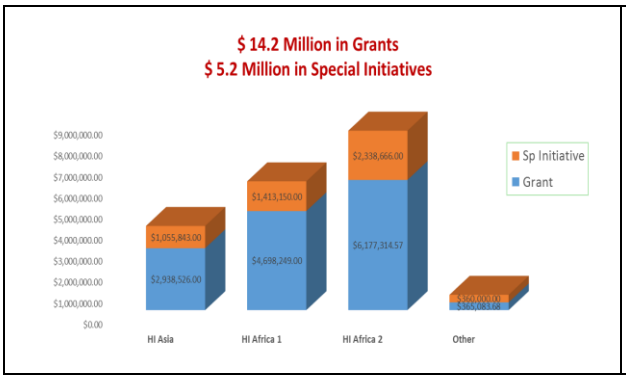
Most importantly, increasing number of high-impact and priority countries are being supported through grant resources to strengthen various CRVS-related activities, including:

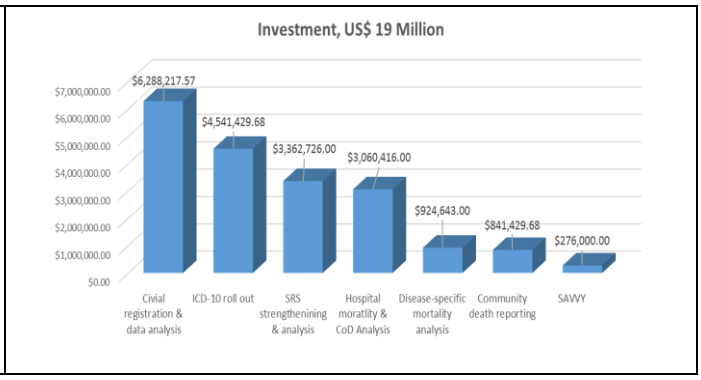
- Assessment of CRVS capacity, as one of the key components in the capacity assessment tool – in all high impact countries, but also in others as needed;
- ICD-10 implementation and roll-out of DHIS2 hospital modules that capture ICD-10 coded mortality and causes of death information (for e.g., in Ghana, Zambia, Zimbabwe, Tanzania, Kenya, Rwanda), with several countries now in the pipeline; and
- Sample registrations systems (SRS) and sample registration with verbal autopsy (SAVVY), for example, in Indonesia and Tanzania.

Overall, in addition to analytical support for mortality data, the efforts so far have resulted in some encouraging progress globally, including:

- Improved partnership with UN organizations, bilateral programs and academic institutions that directly or indirectly contribute to mortality data systems and CRVs at large;
- It created a platform for joint approach (with global, regional and country-level partners) in mapping of mortality data sources, analysis and use, as well as in strengthening the underlying mortality data systems. The Global CRVS working group linked to the HDC, is a good example.
- Supported some key milestones: a) development of regional strategy for mortality system strengthening in Africa; b) creation of technical expert pool for mortality analysis and system strengthening in Africa and Middle East; c) development of step by step guide on improvement of death registration and causes of death processes; d) integration of mortality reporting into DHIS2 happening in more than 10 countries; and e) south-to-south experience sharing and peer-support mechanisms between countries (e.g., South Africa-Zimbabwe, Egypt-Sudan).

Figure 3: Progress to date: Global Fund investments in the current grant cycle (2014-2017)





D. The way forward

Going forward the Global Fund should focus on building mortality data system as an **integral component of country health information system strengthening**. A guidance approved by the Global Fund Board recommends grant recipients to allocate up to 1% of grant resources to strengthen vital registration[6]. Particular focus should be on strengthening mortality and causes of death reporting in health facilities and to the extent possible, from community registers. These efforts should be linked with continuous support for analysis and use of mortality data to inform policy decisions and program implementation.

Table 2: Mortality data system strengthening & analysis: where the Global Fund support fits best

Item	Support?
1. Analysis and use of mortality data from surveys, surveillance, routine reports and vital registers	Yes
2. Integration of mortality reporting into HMIS/DHIS 2	Yes
3. Reporting and analysis of mortality data from community vital registers	Yes
4. Assessment of the health sector components of CRVS system	Yes
5. Assessment of death registration and reporting coverage in CRVS	Yes
6. Partnerships and TA facilitation for mortality analyses	Yes
7. Training pool of TA providers	Yes
8. ICD-10 implementation & cause of death reporting in clinical settings	Yes
9. Sample registration systems (SRS) and SAVVY	Partly
10. Establishment of vital registers in health facilities	Partly
11. Establishment of vital registers at community level	Maybe
12. Establishing national CRVS systems	No

[6] Strategy, Investment and Impact Committee: GF/SIIC05/05; Board Decision Point: DP GF/B31/DP06.

As shown in Figure 4 below, the main focus in the current allocation cycle (2017-2020) will be on: a) supporting the 17 countries currently undertaking analyses of mortality data to finalize the ongoing work and draw key lessons for future scale-up; b) support ICD-10 roll out as well as integration of mortality reporting into DHIS 2 in selected countries; c) Increase grant resources and technical support for mortality system design, and d) provide guidance and support to country applicants on the key areas for investment in mortality data systems, as listed on table 2 above and in the framework below.

Figure 4: Framework for building mortality data systems: Global Fund approach