Shanghai

The Challenge

Shanghai has an advanced system for birth and death registration. All births and approximately two-thirds of deaths occur in health facilities, and by law, all births and deaths must be registered. Physicians complete death certificates for both at-home and hospital deaths outside the medicolegal death system (MLDI). Data is then sent to the Shanghai Municipal Center for Disease Control and Prevention (CDC) for aggregating and analyzing vital statistics. Nonetheless, there remain some gaps in the quality of cause of death information in Shanghai.

The Approach

Under the Bloomberg Philanthropies Data for Health Initiative, technical assistance has been provided, in partnership with the University of Melbourne, to advance system performance by focusing on improvements in the quality of mortality statistics. In addition to capacity building for quality improvement and critical analysis of cause of death data, physicians have been trained in medical certification and ICD mortality coding, and in the use of verbal autopsy. Improving the quality of cause of death sets the stage for supporting the production of high-quality vital statistics.

Impact

Since 2015, Shanghai CDC, in partnership with the Data for Health initiative, has implemented several strategies to strengthen the CRVS system with a focus on quality of cause of death data. Given Shanghai has 100% birth and death registration completeness, Data for Health has supported Shanghai in implementing strategies to measure and improve ill-defined and unusable causes. Currently 9% of cause of death data is unusable. The strategies described below detail the comprehensive efforts to ensure sustainability in producing high quality cause of death data.

Better Facility Cause of Death Data: Shanghai CDC has trained in-service physicians on medical certification of cause of death (MCCD) in order to build physician competency. In total, 883 physicians were trained on MCCD, 40 were trained on certification quality control, and 155 were trained on advanced statistical methods. To reach greater numbers of physicians, a set of 15 eLearning modules across various specialties have been developed to provide training on MCCD.

Improving Data Quality: Building Shanghai CDC's staff capacity, skills and knowledge in CRVS has ensured high-quality registration of births and deaths, and has ensured that data are properly compiled, checked, analyzed and developed into vital statistics for policy and planning. Data for Health experts delivered training in estimation methods on the completeness of birth and death registration to allow Shanghai CDC to monitor CRVS system performance in birth and death registration for residents. The experts also trained staff to build their capacity to routinely monitor the quality of cause of death data, enabling them to identify inconsistencies and errors in their mortality datasets and develop interventions to improve the reliability of data for health policy and planning.

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Shanghai

Ongoing Work

Better Facility Cause of Death Data

The Data for Health Initiative is supporting Shanghai CDC to build a cadre of master trainers across different specialties in the major hospitals in Shanghai, and is also supporting trainings and quality assurance strategies for emergency centers, pediatrics centers, nursing homes, and community health centers. As part of the strategy to sustain higher quality certification practices, Shanghai CDC is developing three new eLearning training modules for doctors from nursing homes and pediatric centers. At the same time, the undergraduate curriculum on MCCD is being integrated into the medical school curriculum in at least two of the five medical schools in Shanghai.

Additionally, Shanghai CDC is delivering MCCD and ICD-10 trainings in three neighboring provinces (Jiangsu, Anhui, and Shandong) to improve the overall quality of cause of death certification. Shanghai CDC is also developing guidelines and standard operating procedures to sustain appropriate routine quality control. Shanghai CDC has been keen to support capacity building for CRVS in these neighboring provinces, and will disseminate best practices from the Data for Health work to date to support them in their routine CRVS work.

Finally, the Initiative is working with Shanghai CDC to revise the quality assessment and control of death certification and coding at district CDCs and Shanghai CDC, through development of standard operating procedures.

Producing and Using Vital Statistics

The Data for Health initiative will support the enhanced design and dissemination of Shanghai CDC vital statistics reporting—by building off of the existing capacity for vital statistics production and use. An online platform to display CRVS data from Shanghai will ensure that data are properly compiled, checked, analyzed and developed into vital statistics for policy and planning.

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