



Medical certification of cause of death: Essential Resource Kit for countries

Reliable and timely statistics on mortality and causes of deaths are essential for the development of national health and population policies, and underpin the ability of countries to respond to emerging health threats and epidemics. Cause of death (COD) statistics are generated from the information provided on a decedent's medical certificate of cause of death, a process known as *certification*. Following certification, the cause (or causes) listed on a medical certificate are *coded* and then *consolidated* into national vital statistics, used by governments to determine health priorities and evaluate the impact of health programs. The reliability, and hence, policy utility of national vital statistics is therefore *directly dependent* on the accuracy and timeliness of a country's death certification and coding practices.

This Resource Kit has been prepared with the objective of providing countries with an essential set of tools and materials to improve the quality of *medical certification of cause of death* (MCCOD) by achieving three broad outcomes:

- 1. Ensure death certification practices meet international standards
- 2. Improve death certification in hospitals
- 3. Improve death certificate coding.

Underpinning these outcomes is a set of resources containing *empirical evidence and country examples*.

How to use this Resource Kit:

The MCCOD Resource Kit contains all of the key resources countries need to improve death certification and coding. It provides the key tools and guidance materials to help countries: a) assess the most common certification errors being made; b) train physicians in correct COD certification; and c) evaluate the impact of these training sessions on physician's certification skills. It is recommended that countries review the resources in the order provided, starting with Outcome 1.

Resources listed under 'Empirical evidence and country examples' provide real-world examples and evidence to support the application of the methods, tools and strategies referenced in this Kit.

Two categories of resources are provided for each outcome: (1) *Key resources*, which are vital to understanding the basic principles required to achieve each outcome, and (2) *Recommended resources*, which provide further detail, and build on the key resources.

This Resource Kit provides countries with a list of essential resources to begin planning and implementing MCCOD improvements. Additional resources can be found on the CRVS Knowledge Gateway, at: <u>https://crvsgateway.info/resources</u>. Information on in-country training to support improvements to MCCOD and death certificate coding can be found at: <u>https://crvsgateway.info/training</u>.

Outcome 1: Ensure death certification practices meet international standards

Aligning certification practices with proven global standards ensures decision-makers have access

to more accurate information on who dies, from what, and where. These resources include guidance and tools for countries to certify deaths according to the WHO's International Form of Medical Certificate of Cause of Death. *This set of resources will help countries understand why medical certification is important, the role of physicians in certifying deaths, and how to assess the quality of medical certification, including the impact of training.*

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Outcome 2: Improve death certification in hospitals

When a patient dies in a hospital, a physician will complete a medical certificate of cause of death. This process can be challenging, however, as physicians are often not properly trained in MCCOD, resulting in incorrectly completed death certificates. *This resource set builds on the principles introduced in Outcome 1, providing guidance and tools for countries to use when developing and implementing a national strategy to ensure hospital physicians are appropriately trained in COD certification practices.*

Empirical evidence and country examples

These resources provide real-world examples of MCCOD quality improvement interventions in countries, presenting evidence to support the application of strategies and tools provided in Outcomes 1-3.



Outcome 3: Improve death certificate coding

Mortality coding is a complex process whereby all diseases and conditions recorded on a death certificate are transferred from text to alphanumeric codes, enabling aggregation of data for monitoring mortality patterns and trends in a population. Timely and accurate coding is an essential component of an effective CRVS system. Its utility is, however, contingent on accurate death certification. *This set of resources follows Outcomes 1 and 2, providing a brief introduction to the importance and challenges of coding, and an overview of how to introduce automated coding into a CRVS system.*

Expected outcome: Improved availability of reliable mortality data for sound public health policy-making and planning

Medical certification of cause of death: Resource list

	KEY RESOURCES	SUPPORTING RESOURCES
	Medical certification of cause of death [701KB] Describes the importance of training and education for physicians on MCCOD	
Outcome 1: Ensure death certification practices meet international standards	Handbook for doctors on cause of death certification [1.02MB] Generic guidelines for physicians on how to certify COD	Medical certification of cause of death: Quick reference guide [288KB] How to correctly complete the WHO medical certificate of COD
	Assessing the quality of death certificates: Guidance for the rapid tool [1.75MB] Detailed guidance on how to use the rapid assessment tool to better understand current cause of death certification practices Assessing the quality of death certificates: Rapid assessment tool [383KB]	Assessment of quality of medical certification practices: a quick reference guide [1.50MB] Guidelines on assessing common errors recorded on Frame A of the WHO medical certificate of COD
	Simple tool for checking common errors on death certificates; for use in the assessment of death certification practices	Death Certificate Assessment Tool (Excel version): User guide [2.06MB] Guidance for using the Microsoft Excel version of the Death Certificate Assessment Tool
		Death Certificate Assessment Tool (Excel version) [26.4MB] Microsoft Excel template to assess the quality of death certificates
Outcome 2: Improve death certification in hospitals	Strategies for improving the quality of cause of death data in hospitals [716KB] Describes eight key action areas to improve the quality of COD data in hospitals	Action guide on improving the quality of cause of death data in hospitals [449KB] Concise overview of the eight key action areas to improve the quality of COD data in hospitals
	Training and education on medical certification of cause of death: effective strategies and approaches [962KB] Outlines a best-practice plan for MCCOD education and training for physicians at three	Action guide on training and education on medical certification of cause of death [1.75MB] Concise overview of the plan for MCCOD education and training for physicians
	different career stages	Medical certification of cause of death: Facilitator's guide [1.44MB] Detailed course outline to guide and assist the training of physicians and medical students in correct COD certification
I -	Mortality coding [830KB] Describes the importance and benefits of coding COD data for subsequent use in public health policy and planning	
	Action guide on implementing automated coding (Iris) [424KB] Describes the seven key steps that countries should follow to implement automated coding of death certificates	
	Improving medical certification of cause of death: effective strategies and	
Empirical evidence and country examples	approaches based on experiences from the Data for Health Initiative [524KB] Describes three training strategies and their impact on the quality of death certification in five countries	
	Introduction of Iris automated mortality coding system in the Philippines [704KB] Describes the activities involved in the introduction of Iris in the Philippines, from initial system capacity assessments to the evaluation of Iris outputs following implementation	
The program partners on this ini Melbourne, Australia: CDC Four	tiative include: The University of dation, USA; Vital Strategies, USA;	Civil Registration and Vital Statistics partners:

Organization, Switzerland. For more information contact: CRVS-info@unimelb.edu.au crvsgateway.info

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