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BUREAU RÉGIONAL DE LA **Méditerranée orientale**

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منظمة الصحة العالمية
المكتب الإقليمي لشرق المتوسط

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IMPROVING THE QUALITY AND COVERAGE OF MORTALITY STATISTICS IN THE REGION

Objectives

The objectives of the event are to encourage Member States to:

- utilize the 2016 international form of medical certificate of cause of death in the Region to improve the completeness and quality of cause of death data;
- accelerate integration of automated verbal autopsy methods into national civil registration and vital statistics systems, where applicable, for the collection of community-based cause of death information.

Background

Civil registration and vital statistics systems, when functioning properly, are the most reliable source of continuous data on fertility, mortality and causes of death. Reliable and representative cause of death statistics are essential to inform public health policy, respond to emerging health needs, and document progress towards Sustainable Development Goals. Moreover, cause-specific mortality statistics by age, sex and geographic location, are instrumental in guiding regional and global policies and priorities for health and development.

2016 International death certificate

The international death certificate is the tool used to record cause of death information. The international mortality coding instructions presuppose that data have been collected with a death certificate conforming to the international form of medical certificate of cause of death. Otherwise, the causes of death cannot be coded according to the international standard and the data will not be internationally comparable. For example, some coding instructions apply to conditions reported as caused by certain other conditions, and in such cases, it is important to have a clear distinction between causes reported in Part 1 and in Part 2 of the certificate.

The added value of the 2016 international death certificate (Annex 1) is that it requires the recording of additional data that are necessary to code the correct underlying cause of death. Such additional data, including manner of death, surgery (if performed), autopsy (if performed), place of occurrence of the external cause, foetal and infant deaths, maternal deaths (or whether pregnancy contributed to the death), is essential when assigning multiple cause codes to the conditions stated on the certificate. In order to align the way this information is collected internationally, the form should be followed as closely as possible. The information can then be used for manual or electronic coding of the underlying and multiple causes of death.

Of the 13 countries in the Region reporting cause of death information, reporting from nine countries is considered of low quality and from four of very low quality. Palestine also reports cause of death information to WHO with around 60% completeness. Using the 2016 international form of medical certificate of cause of death will foster the improvement of quality of cause of death data as it obliges certifying physicians to complete additional information, not required in earlier forms. Such additional information helps the coders to determine the underlying cause of death more correctly, thus reducing the percentage of unknown and ill-defined causes.

In the Region, Bahrain, Egypt, Jordan, Libya, Oman, Tunisia, Saudi Arabia and United Arab Emirates are in the process of updating their automated system to include the new 2016 death certificate but no one country has yet completed the process.

2017 Automated verbal autopsy questionnaire

Despite the importance of reliable cause of death information, less than 25% of deaths in the Region are assigned a cause. Civil registration and vital statistics systems in low- and lower middle-income countries are failing to provide timely, complete and accurate vital statistics, and it will still be some time before they can provide physician-certified cause of death for every death.

Verbal autopsy is a method to ascertain the probable cause of death and, although imperfect, it is the best alternative in the absence of medical certification. There is extensive experience with verbal autopsy in research settings but only a few examples of its use on a large scale. Data collection using electronic questionnaires on mobile devices and computer algorithms to analyse responses and estimate probable cause of death have increased the potential for verbal autopsy to be routinely applied in civil registration and vital statistics systems. However, a number of civil registration and vital statistics and health system integration issues should be considered in planning, piloting and implementing a system-wide intervention such as verbal autopsy. These include addressing the multiplicity of stakeholders and sub-systems involved, integrating with existing civil registration and vital statistics work processes and information flows, and linking verbal autopsy results to civil registration records, information technology requirements and data quality assurance.

Way forward

WHO will provide technical support to Member States to introduce the 2016 international form of medical certificate of cause of death and build capacity in International Classification of Diseases (ICD-10-) compliant death certification to improve the quality of medically certified mortality statistics. Technical support will also be provided to build capacity in automated verbal autopsy methods to facilitate its integration into national civil registration and vital statistics systems.

Expected outcomes

- Political commitment elicited for the utilization of the new 2016 international form of medical certificate of cause of death to improve the quality of cause of death information.
- Political commitment elicited for integrating community-based verbal autopsy into civil registration and vital statistics systems to increase the coverage of mortality statistics from the community, in areas where it is difficult to have physician-certified cause of death for every death.

Annex 1

2016 International Form of Medical Certificate of Cause of Death

Administrative Data (can be further specified by country)			
Sex	☐ Female	☐ Male	☐ Unknown
Date of birth	D D M M Y Y Y Y	Date of death	D D M M Y Y Y Y

Frame A: Medical data: Part 1 and 2				
1 Report disease or condition directly leading to death on line a			Cause of death	Time interval from onset to death
	↪	a		
Report chain of events in due to order (if applicable)	↪	b	Due to:	
	↪	c	Due to:	
State the underlying cause on the lowest used line	↪	d	Due to:	
2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition)				

Frame B: Other medical data			
Was **surgery** performed within the last 4 weeks?	☐ Yes	☐ No	☐ Unknown
If yes please specify date of surgery			D D M M Y Y Y Y
If yes please specify reason for surgery (disease or condition)			
Was an autopsy requested?	☐ Yes	☐ No	☐ Unknown
If yes were the findings used in the certification?	☐ Yes	☐ No	☐ Unknown

Manner of death:

☐ Disease	☐ Assault	☐ Could not be determined
☐ Accident	☐ Legal intervention	☐ Pending investigation
☐ Intentional self harm	☐ War	☐ Unknown

If external cause or poisoning:	Date of injury	D D M M Y Y Y Y
Please describe how external cause occurred (If poisoning please specify poisoning agent)		

Place of occurrence of the external cause:

☐ At home	☐ Residential institution	☐ School, other institution, public administrative area	☐ Sports and athletics area
☐ Street and highway	☐ Trade and service area	☐ Industrial and construction area	☐ Farm
☐ Other place (please specify):			☐ Unknown

Fetal or infant Death

Multiple pregnancy	☐ Yes	☐ No	☐ Unknown
Stillborn?	☐ Yes	☐ No	☐ Unknown
If death within 24h specify number of hours survived		Birth weight (in grams)	
Number of completed weeks of pregnancy		Age of mother (years)	

If death was perinatal, please state conditions of mother that affected the fetus and newborn			
For women, was the deceased pregnant?	☐ Yes	☐ No	☐ Unknown
☐ At time of death	☐ Within 42 days before the death		
☐ Between 43 days up to 1 year before death	☐ Unknown		
Did the pregnancy contribute to the death?	☐ Yes	☐ No	☐ Unknown