Methodological note

GUIDANCE ON STATISTICAL PROCESSING FOR PUBLIC HEALTH STATISTICS (CAUSES OF DEATH AND HEALTH CARE NON-EXPENDITURE DATA COLLECTIONS) IN THE CONTEXT OF THE COVID-19 CRISIS

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UNIT F5 — EDUCATION, HEALTH AND SOCIAL PROTECTION

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VERSION	DATE	CHANGES IN SECTION
1.0	20 MAY 2020	
1.1	10 MAY 2021	All sections (except for sections on purpose and on health care non-expenditure); annex replaced by link to external document

Introduction

Data on causes of death and hospital discharges at EU level are essential for EU policies. There are two separate data collections: Causes of death (COD) – data collection under EU implementing Regulation 349/2011 and Health care non-expenditure data collection (HCnE) – a joint data collection together with OECD and WHO.

The cause of death is defined as the disease or injury that started the train (sequence) of morbid (disease-related) events which led directly to death, or the circumstances of the accident or violence which produced the fatal injury. By relating all deaths in the population to an underlying cause of death, the risks associated with death from a range of specific diseases and other causes can be assessed.

A hospital discharge is the formal release of a patient from a hospital after a procedure or course of treatment. A discharge occurs whenever a patient leaves because of finalisation of treatment, signs out against medical advice, transfers to another health care institution or on death. The number of discharges is the most commonly used measure of the utilisation of hospital services. Causes of death and hospital discharges by diagnostic chapters (using principal diagnosis), are defined according to the International Classification of Diseases (ICD).

Purpose

The COVID pandemic has direct impact on statistics of causes of death and on hospital discharges data. It is important to record and report health statistics linked with COVID-19 in a uniform way. This document describes classification (coding) of deaths and hospital discharges related to COVID-19.

Coding of COVID-19

The main classification used is the International Classification of Diseases (ICD), currently ICD-10 version. The ownership of the classification belongs to World Health Organisation (WHO) who is in charge of the revisions that are meant to reflect the advances in health and medical science over time. In the context of the COVID-19 outbreak, WHO issued a new code for COVID and associated guidance.

Originally, two ICD-10 codes were assigned for COVID-19:

- **U07.1** COVID-19, virus identified (https://icd.who.int/browse10/2019/en#/U07.1)

- **U07.2** COVID-19, virus not identified (https://icd.who.int/browse10/2019/en#/U07.2)°

They have been complemented by the following codes:

- **U08.9** Personal history of COVID-19, unspecified
  (https://icd.who.int/browse10/2019/en#/U08.9)

- **U09.9** Post COVID-19 condition, unspecified
  (https://icd.who.int/browse10/2019/en#/U09.9)

- **U10.9** Multisystem inflammatory syndrome associated with COVID-19, unspecified
  (https://icd.who.int/browse10/2019/en#/U10.9)

- **U11.9** Need for immunization against COVD-19, unspecified
  (https://icd.who.int/browse10/2019/en#/U11.9)

- **U12.9** COVID-19 vaccines causing adverse effects in therapeutic use, unspecified (https://icd.who.int/browse10/2019/en#/U12.9)

Details of the updates to ICD-10 are available online at:

> https://cdn.who.int/media/docs/default-source/classification/icd/covid-19/covid-19-coding-updates-3-4-combined.pdf

The most updated information concerning coding principles of the ICD-10 classification specific for COVID- 19 can be found here:

> https://www.who.int/classifications/icd/covid19/en/

Eurostat recommends using the above-mentioned codes, where applicable, for COVID-19 coding in COD and HCnE statistics.

Causes of death statistics

As proposed by the WHO, a death due to COVID-19 is defined as a death resulting from a clinically compatible illness, in a probable or confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID disease (e.g. trauma). There should be no period of complete recovery from COVID-19 between illness and death. A death due to COVID-19 may not be attributed to another disease (e.g. cancer) and should be counted independently of pre-existing conditions that are suspected of triggering a severe course of COVID-19.

Countries reporting the COVID-19 death should use 4-character categories of ICD-10. The codes used and their level of detail must be in line with the ICD update identified in the data transmission file.

Detailed guidance in certification and coding is provided by WHO at:

> https://cdn.who.int/media/docs/default-source/classification/icd/covid-19/guidelines-cause-of-death-covid-19-20200420-en.pdf.

Health care non-expenditure statistics

Data should include discharges from all public and private hospitals. Data from residential long-term care facilities should not be included.

Countries shall provide three indicators:
1.   Inpatient discharges,
2.   Bed-days,
3.   Day case discharges
broken down by diagnosis, sex, age and region at NUTS 2.

It is recommended to use ICD-10 3-character code for the diagnosis category.

In case the hospital discharge records do not include the special identification of day cases, any record showing that admission and discharge dates were identical should be assigned to the day case category if the patient was alive when discharged.

Data should include discharges to home and to other inpatient institutions, and deaths in hospital.

In accordance with the ICD, it is recommended that the main diagnosis be defined as the condition diagnosed at the end of the hospitalisation period, primarily responsible for the patient's need for treatment or examination at the hospital. If there is more than one such condition, the one held responsible for the greatest use of resources should be selected. If no diagnosis was made, the main symptom, abnormal finding or problem should be selected as the main diagnosis. For COVID-19 related hospitalisations, the codes listed above should be used.