

# Refinement of processes used to determine underlying cause of death

## Information Paper

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### Defining the issue

Deaths occurring in Northern Ireland (NI) are registered on the NI General Register Office's Registration System (NIROS). Cause of death coding to the [ICD-10 classification](#) is carried out, on behalf of the NI Statistics and Research Agency (NISRA), by the [Office for National Statistics](#) (ONS). Cause of death coding uses information on the medical cause of death as well as any supporting information about the circumstances of the death as provided from coroners. The circumstances of a death can influence the underlying cause of death assigned.

### A worked example

The following cause of death details might appear on a death certificate: 1a – Pneumonia, 1b – Chronic obstructive pulmonary disease (COPD), and II – Hip fracture.

However, additional information made available from Coroners can influence the assignment of the underlying cause of death. For example, if additional information indicates a death was due to natural causes, the impact of the hip fracture is removed as part of the cause of death, and therefore, through application of ICD-10 classification rules the underlying cause will be assigned as COPD.

Alternatively, if, for the same group of causes, additional information shows that the death was accidental, the impact of the hip fracture becomes more significant to the cause of death and selected as the underlying cause about the circumstances of the death as provided from Coroners.

### Refining the process

From July 2024, ONS and NISRA reviewed the processes for utilising additional supporting information as part of the death coding procedures to ensure it is applied in a consistent way to all cases, where appropriate. The need for a review was identified by NISRA from routine checks of coded deaths registered during quarter one and two of 2024 that highlighted some

inconsistencies in how additional supporting information was applied. Prior to 2024 the number of such inconsistencies were much less and reviewed on an individual bases.

## What has changed?

The refinement of these procedures has resulted in changes to the published 2024 provisional quarterly statistics (for quarters one and two) in relation to counts by underlying cause of death, particularly for accidental drug or alcohol deaths. While the updated procedures were implemented from July 2024, to provide a consistent approach for the full calendar year, ONS also revisited the ICD-10 codes applied for deaths registered between 1 January and 30 June 2024.

The previously published drug death figures for quarter one and two of 2024 were 56 and 65. Figure 1 shows that these have been updated to 61 and 65, respectively. The previously published alcohol death figures for quarter one and two of 94 and 84 have also been revised to 104 for each quarter. This has resulted in a notable 23.8% increase in alcohol deaths in quarter two compared to that previously published. The reallocation of these drug and alcohol deaths for quarter one and two of 2024 has subsequently reduced the number of deaths for other ICD-10 categories particularly those deaths previously categorised as diseases of the circulatory, respiratory, or digestive systems (though the impact in these groups has been no more than a 2% decrease).

**Figure 1: Quantifying the change in the review process on the number of registered drug and alcohol related deaths during quarters one and two of 2024.**

