NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

NICE indicator validity assessment

Assurance date: August 2023

Review date: August 2026

# Indicator IAP00019

# Under 75 mortality from liver disease.

(See also IAP00074 CCG Outcomes Indicator Set version)

# Indicator type

National Library of Quality Indicators.

# Importance

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| **Considerations** | **Assessment** |
| Indicator is part of the [NHS outcomes framework](https://digital.nhs.uk/data-and-information/publications/statistical/nhs-outcomes-framework) domain 1 – preventing people from dying prematurely (indicator 1.3). | The indicator reflects a specific priority area identified by NHS England. |
| Nationally rates have been increasing over time, from a directly age-standardised rate per 100,000 of 16.6 in 2003 to 20.6 in 2020. Deprivation data is available from 2009 onwards and shows significantly higher rates in the most deprived deciles. Regional breakdowns are also available, with sex splits for all breakdowns and age splits at England level only. ([NHS OF data for indicator 1.3,](https://digital.nhs.uk/data-and-information/publications/statistical/nhs-outcomes-framework/march-2022/domain-1---preventing-people-from-dying-prematurely-nof/1.3-under-75-mortality-rate-from-liver-disease) March 2022 release). | The indicator relates to an area where there is known variation.  The indicator addresses under-treatment. |
| Indicator is part of the NHS outcomes framework section 1 focussing on prevention of premature mortality, with the aim of lowering the numbers to improve health outcomes. | The indicator will lead to a meaningful improvement in patient outcomes. |

# Evidence base

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| **Considerations** | **Assessment** |
| Liver disease is included in the NHS OF because it is a major cause of death in England and the NHS can contribute to reducing premature deaths from both amenable and non- amenable causes.  [NICE’s quality standard QS152](https://www.nice.org.uk/guidance/qs152) includes quality statements on identifying, assessment and managing liver disease. | The indicator is derived from a high-quality evidence base.  The indicator aligns with the evidence base. |

# Specification

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| **Considerations** | **Assessment** |
| Numerator: Number of deaths for which liver disease (ICD10 K70-77, B15-19, C22, I81, I85, T86.4) is given as the underlying cause of death, based on the original cause recorded on the death certificate.  Denominator: Mid-year population estimates.  Calculation: Directly age-standardised rates.  Exclusions: None.  Definitions: Liver disease uses codes ICD10 K70-77, B15-19, C22, I81, I85, T86.4.  Geography: England, regions, deprivation decile.  Data Source: Specification says Primary Care Mortality Database (PCMD), but then refers to ONS Mortality data. It’s the same source but could be clearer that this is the case. ONS mid-year population estimates.  Disclosure control: None due to region being lowest geography level published. | The indicator has defined components necessary to construct the indicator, including numerator, denominator and exclusions. |

# Feasibility

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| **Considerations** | **Assessment** |
| Both numerator and denominator come from reliable sources which will continue. | The indicator is repeatable. |
| Data is available from ONS:   * ONS mortality data * ONS mid-year population estimates. | The indicator is measuring what it is designed to measure.  The indicator uses existing data fields. |

# Acceptability

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| **Considerations** | **Assessment** |
| The [NHS OF quality statement for indicator 1.3](https://digital.nhs.uk/data-and-information/publications/statistical/nhs-outcomes-framework/march-2022/domain-1---preventing-people-from-dying-prematurely-nof/1.3-under-75-mortality-rate-from-liver-disease) states:  The overarching indicators in domain 1 allow the Secretary of State to review how successful the NHS has been in preventing people from dying prematurely, and in particular, preventing deaths from causes considered ‘amenable’ to healthcare. 'Amenable' in this context relates to premature deaths that should not occur in most cases in the presence of timely and effective healthcare.  Liver disease other than Hepatitis C is not counted as amenable under the Office for National Statistics (ONS) definition, yet many (as opposed to ‘most’ – as required by the ONS definition) of these deaths are amenable to healthcare.  It is included in the framework because it is a major cause of death in England and the NHS can contribute to reducing premature deaths from both amenable and non- amenable causes. | The indicator assesses performance that is attributable to or within the control of the audience |
| Rates are published each year by NHS England as part of the NHS Outcomes Framework (indicator 1.3).  Overall rates have increased over time, however there is significant variation by region and deprivation decile. | The results of the indicator can be used to improve practice |

# Risk

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| **Considerations** | **Assessment** |
| Changes in methods for the underlying data may impact comparability of data over time.  Changes in the software used to code death registrations in England and Wales may result in changes in cause of death. In 2014 the ONS made changes to the way cause of death is categorised (using IRIS ICD10 coding change). The impact on liver disease could not be estimated.  The [Public Health Outcomes Framework publishes indicator E06a](https://fingertips.phe.org.uk/profile/public-health-outcomes-framework): under 75 mortality rate from liver disease. This indicator source here is the Office for Health Improvement and Disparities but this uses ONS data. This notes the adjustment of deaths up to 2019 to take account of the [MUSE ICD10 coding change](https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/causeofdeathcodinginmortalitystatisticssoftwarechanges/january2020) introduced in January 2020. There is no estimate of the impact on estimates of mortality from liver disease.  Mid-year population estimates for 2020 were superseded by newer versions that use the same population estimates but incorporate new measures of statistical uncertainty. Census 2021 affects population estimates and so previous indicator data may not be comparable ([Public Health Outcomes Framework, indicator E06a](https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/4/gid/1000044/pat/159/par/K02000001/ati/15/are/E92000001/iid/40601/age/163/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1); indicator definitions and supporting information 7 March 2023).  Statistics from 2020 mortality data should be interpreted with care as they may have been impacted by the COVID-19 pandemic.  Similar indicators in the [Public Health Outcomes Framework (PHOF)](https://fingertips.phe.org.uk/profile/public-health-outcomes-framework) and the CCGOIS (IAP00074). Methodology should match but risk of the indicators saying different things. | The indicator has an acceptable risk of unintended consequences. |

# NICE indicator advisory committee recommendation

The NICE indicator advisory committee approved renewal of this indicator.

**NHS Digital Indicator Reference:**

NHS Outcomes Framework - 1.3 Under 75 mortality rate from liver disease.