

## Background Quality Report: 'Health & Social Care Inequalities Monitoring System Publications'

Dimension	Assessment by the author
<b>Introduction</b>	<p><b><i>Context for the quality report.</i></b></p> <p>Quality is recognised as one of the three pillars under the Code of Practice for Statistics highlighting the fundamental importance of ensuring that statistics fit their intended uses, are based on appropriate data and methods, and are not materially misleading. It states the need for suitable data sources, sound methods and assured quality. The full text of the Code is available at:</p> <p><a href="https://www.statisticsauthority.gov.uk/code-of-practice/the-code/">https://www.statisticsauthority.gov.uk/code-of-practice/the-code/</a></p> <p>Each official statistics output produced through the Health &amp; Social Care Inequalities Monitoring System (HSCIMS) by Public Health Information and Research Branch (PHIRB) within the Department of (DoH) contains key quality information in respect of the specific content of the statistical output. This information is provided in the definitions, notes to tables or notes to editors.</p>
<b>Relevance</b>	<p><b><i>The degree to which the statistical product meets user needs in both coverage and content.</i></b></p> <p>Information presented in the Health &amp; Social Care Inequalities Monitoring System Publications is derived from data which is sourced from a range of suppliers and used to calculate a variety of health indicators.</p> <p>Registered births and deaths</p> <ul style="list-style-type: none"> <li>• Source: General Register Office (GRO), Demography Branch (DMB), NISRA</li> <li>• Indicators: Standardised Death Rates, Teenage Birth Rates, Life Expectancies</li> </ul> <p>Hospital Admissions</p> <ul style="list-style-type: none"> <li>• Source: Hospital Information Branch (HIB), DoH</li> <li>• Indicators: Standardised Admission Rates</li> </ul> <p>Emergency Care Attendances</p> <ul style="list-style-type: none"> <li>• Source: Hospital Information Branch (HIB), DoH</li> <li>• Indicators: Standardised Emergency Care Attendance Rate</li> </ul> <p>Cancer Incidence</p> <ul style="list-style-type: none"> <li>• Source: Northern Ireland Cancer Registry (NICR)</li> <li>• Indicators: Used to calculate Standardised Incidence Rates</li> </ul> <p>Prescription Rates</p> <ul style="list-style-type: none"> <li>• Source: Business Services Organisation (BSO)</li> <li>• Indicators: Standardised Prescription Rates</li> </ul> <p>Other indicators</p> <ul style="list-style-type: none"> <li>• Source: Child Health System (CHS) and the Northern Ireland Maternity System (NIMATS)</li> <li>• Indicators: Low/healthy birth weight, Smoking in pregnancy, Breastfeeding on discharge, Childhood Obesity</li> <li>• Source: Northern Ireland Ambulance Service Trust (NIAS)</li> <li>• Indicators: Ambulance Response Times</li> <li>• Source: Community Information Branch (CIB)</li> </ul>

	<ul style="list-style-type: none"> <li>• Indicators: Looked after children, autism prevalence.</li> </ul> <p>The published information is a comprehensive analysis of health inequality gaps between the most and least deprived areas of NI, and within sub-regional areas across a wide range of health indicators relating to mortality, morbidity, utilisation of services and health and life expectancies. The statistics illustrate changes in trends in health outcomes among different population groups and longitudinal assessment of health inequality gaps between different socioeconomic groups, and different areas in Northern Ireland.</p> <p>The statistics are heavily used by public health policy makers, local Government, other Government Departments, service commissioners as well as academics, charities, interest groups and professionals within the health system.</p>
<p><b>Accuracy and Reliability</b></p>	<p><b><i>The proximity between an estimate and the unknown true value.</i></b></p> <p>With the exception of Healthy Life Expectancy (HLE) and Disability-Free Life expectancy (DFLE) which are calculated from survey data, all indicators used in the production of the HSCIMS publications are calculated from data derived from administrative systems, and are not samples of the population, and are therefore not subject to sampling error.</p> <p>Quality awareness and assurance checks are performed by the suppliers of the returns:</p> <p>Registered births and deaths</p> <ul style="list-style-type: none"> <li>• The data is used for the production of official vital statistics for Northern Ireland and is managed through a robust registration system under the function of the Registrar General for Northern Ireland. Rigorous quality assurance checks are completed by DMB on the data prior to publication of the Annual Registrar Report. Once this National Statistics publication has been released the data file for PHIRB is prepared and extensively validated before being issued to PHIRB.</li> </ul> <p>Hospital Admissions &amp; Attendances</p> <ul style="list-style-type: none"> <li>• The data is used for the production of national statistics for Northern Ireland and is managed through a robust hospital inpatient system and emergency department administrative data which is quality assured by information leads within HIB, HSC Trusts and HSC Board. Rigorous quality assurance checks are completed by these information leads prior to publication of the Annual Hospital Activity and Emergency Care Activity Reports. HSC Trusts are given a set period of time to submit final figures to HIB for validation. Following submission, HIB perform a series of validation checks to ensure that information is consistent with their own derived information. Trend analyses are used to monitor annual variations and emerging trends. Queries arising from validation checks are presented to HSC Trusts for clarification and if required, returns may be amended and/or re-submitted. Finally, prior to the publication of this information the data are presented to HSC Trusts and hospitals for final sign-off. Once this National Statistics publication has been released, HIB</li> </ul>

prepare the data file for PHIRB and carry out extensive validation checks before issuing to PHIRB.

#### Cancer Incidence

- The data is used for the production of official statistics for Northern Ireland. Rigorous quality assurance checks are completed by NICR on the data prior to publication of the Official Statistics. Once these Official Statistics have been released, NICR prepare the data file for PHIRB and carry out extensive validation checks before issuing to PHIRB.

#### Prescription Rates

- The data is used for the production of official statistics for Northern Ireland. For most of the data extracted from EPES, validation steps include checking consistency and reliability of the data; analysis of trends; checking that values fall within acceptable ranges; and assurance from subject matter experts. Once the data file is prepared by BSO extensive validation checks are carried out before issuing to PHIRB.

#### Other Data Sources

- Child Health System (CHS); for the information items received, coding levels are very high across all variables received. Each of the CHS data suppliers employ their own internal systems and procedures for data cleaning and validation for quality assurance. The CHS is a live data system that is quality assured and updated on an ongoing basis by operational and information staff. It is the responsibility of the clinical system administrators and CHS managers to ensure that they adhere to the quality assurance process.
- Northern Ireland Maternity System (NIMATs) is a key source for data on maternal risk factors, birth weights, maternal smoking, and breastfeeding on discharge. Data coverage and completeness on NIMATS for the information used within the HSCIMS is of 'very good' – 'excellent' quality. The system is quality assured and updated on an ongoing basis by operational, IT and information staff.
- Northern Ireland Ambulance Service Trust (NIAS), data is extracted from a robust information system that is used for operational purposes. The NIAS is provided with guidance for the recording, collection and submission of this data. In addition, variance checks are employed as an integral part of the production process with large discrepancies between the current year and previous years (both regionally and at sub-regions), being queried with the data provider.
- Community Information Branch (CIB), Quality assurance checks are undertaken by information officers in both the HSC Trusts and HSC Board before the returns are forwarded to CIB, who check for internal and external consistency, and trends within the data,. Where appropriate explanations are sought from HSC Trust.

PHIRB carry out further checks on all information returns to quality assure and validate data within the transferred files by ensuring that the data within accurately matches with published statistics, where possible. In addition, latest information is assessed longitudinally and geographically to identify any potential issues. Any discrepancies or concerns identified

	<p>are communicated and investigated with the suppliers of the data. Individual variables are also analysed longitudinally to ensure consistency and reliability within the data.</p> <p>A degree of data cleansing is required by PHIRB, particularly for BMI data, where cut-off limits are applied to remove feasibly unreliable data.</p> <p>Before publication of any HSCIMS report, it is proof read by several statisticians to ensure the consistency of figures quoted throughout the publication with the working files. Previous data are revised if necessary and appropriate. All revisions are conducted in line with the 'Statement on Revisions and Errors' found in the DoH Statistics Charter.</p> <p><a href="https://www.health-ni.gov.uk/topics/doh-statistics-and-research/official-statistics-and-user-engagement">https://www.health-ni.gov.uk/topics/doh-statistics-and-research/official-statistics-and-user-engagement</a></p>
<p><b>Timeliness and Punctuality</b></p>	<p><b><i>Timeliness refers to the time gap between publication and the reference period. Punctuality refers to the gap between planned and actual publication dates.</i></b></p> <p>Health &amp; Social Care Inequalities Monitoring System Publications are published annually. The first report in the series, the annual 'Life Expectancy NI', which is produced within two weeks of final data being received and presents the Official life expectancy, healthy life expectancy and disability free life expectancy estimates for NI, alongside an analysis of changes in life expectancy and the extent to which mortality within certain age groups and causes of death contribute to the observed variations in life expectancy estimates for NI. This is shortly followed by the 'Public Health NI Factsheet', which presents high-level NI, Trust and LGD figures, and this is followed three months later by the annual health inequalities report which provides a more in-depth analysis including an assessment of deprivation gaps and trends.</p> <p>A schedule of publications is provided within the IAD statistical release calendar twelve months in advance of releases:  <a href="https://www.health-ni.gov.uk/publications/statistical-releases-calendar">https://www.health-ni.gov.uk/publications/statistical-releases-calendar</a></p> <p>As per the requirements of the UK Statistics Authority the month of publication is announced a year in advance and the day of publication one month in advance of publication (available on <a href="https://www.gov.uk/">https://www.gov.uk/</a>).</p> <p>In the majority of cases, the target publication deadlines are met. However, in the event of a change to a pre-announced release date, the new date is announced, explained and updated regularly. As these reports are reliant on a wide range of sources for data, any delay in the publication of input data will have a knock-on effect on the timeliness of the Health &amp; Social Care Inequalities Monitoring System Publications.</p>
<p><b>Accessibility and Clarity</b></p>	<p><b><i>Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.</i></b></p>

	<p>Information regarding methodologies, indicator descriptions and sources of data used to produce the analyses throughout the Health Inequalities publications can be found in the technical sections of the published reports.</p> <p>The statistical publications are available to download free of charge in PDF format at:  <a href="https://www.health-ni.gov.uk/topics/dhssps-statistics-and-research/health-inequalities-statistics">https://www.health-ni.gov.uk/topics/dhssps-statistics-and-research/health-inequalities-statistics</a></p> <p>The statistical tables are also available to download in MS Excel format, suitable for further analysis.</p> <p>The publication contains contact details for further information. Additional ad-hoc analysis, where appropriate, may be provided on request.</p>
<p><b>Coherence and Comparability</b></p>	<p><b><i>Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain.</i></b></p> <p>The Health and Social Care Inequalities Monitoring System is currently the only official source of health inequality statistics in Northern Ireland. In addition to validating the data itself, the individual variables which make up the HSCIMS are analysed longitudinally and geographically to ensure consistency and reliability within the data, and to identify any possible issues. Any discrepancies or concerns identified are investigated fully.</p> <p>Communication between PHIRB and each of the data suppliers is considered very good. Ongoing working relationships ensure that PHIRB is kept up to date of any methodological/processing change to the data. Following a discussion of how these changes may impact the variables, the data can be backdated to ensure that the continuity and comparability over time.</p> <p>Health inequalities and public health outcomes information is broadly comparable across each of the four UK jurisdictions; although, there are a number of key differences in how outcomes/indicators are reported in each. With this in mind, we would ask readers to be cautious when making comparisons across the UK. In particular, readers should avoid making direct comparisons of deprivation gaps due to the different measures of multiple deprivation used in each jurisdiction, currently there is no UK-wide deprivation index.</p>
<p><b>Trade-offs between Output Quality Components</b></p>	<p><b><i>Trade-offs are the extent to which different aspects of quality are balanced against each other.</i></b></p> <p>None</p>
<p><b>Assessment of User Needs and Perceptions</b></p>	<p><b><i>The processes for finding out about users and uses, and their views on the statistical products.</i></b></p> <p>Data presented in these publications help to meet the information needs of a wide range of internal and external users.</p>

	<p>Within DoH figures from Health Inequalities publications are used for quarterly and annual input into Commissioning Plan direction, Programme for Government (PfG) and Making Life Better indicators monitoring, in addition to other key DoH strategies. The data is also required for updating the Health &amp; Social Care Inequalities Monitoring System (HSCIMS), HSCIMS related queries, queries from DoH policy, for Ministerial briefing and to respond to Private Office enquiries and parliamentary/ assembly questions.</p> <p>It is also used by researchers looking at health inequalities and by local government and members of the general public to hold public health partners, HSC Trusts and government to account.</p> <p>We gain awareness of users of our data from ad hoc requests for information and from the receipt of invitations to relevant meetings and conferences.</p> <p>Health Inequalities outputs are continually reviewed with users including policy leads and council statisticians. User's needs are prioritised, taking account of the resources available. Format of outputs have recently been changed in line with feedback suggesting the need for more regular and timely publication in the format of dashboard layout and tables.</p> <p>The Health Inequalities publication also underwent a NISRA peer review in 2016, with appropriate recommendations implemented.</p>
<p><b>Performance, Cost and Respondent Burden</b></p>	<p><b><i>The effectiveness, efficiency and economy of the statistical output.</i></b></p> <p>HSCIMS data is generated from the administrative systems. Using data which is already available within administrative systems places a reduced burden on data providers and also means that PHIRB avoid the costs of implementing dedicated data collection exercises.</p>
<p><b>Confidentiality, Transparency and Security</b></p>	<p><b><i>The procedures and policy used to ensure sound confidentiality, security and transparent practices.</i></b></p> <p>Data are held on a network that is only accessible to the statisticians who need access. The DoH Statistical Charter contains a 'Statement on Confidentiality and Security.'</p> <p><a href="https://www.health-ni.gov.uk/topics/doh-statistics-and-research/official-statistics-and-user-engagement">https://www.health-ni.gov.uk/topics/doh-statistics-and-research/official-statistics-and-user-engagement</a></p> <p>All information produced is aggregated to non-disclosive higher geographical levels and treated for confidentiality prior to release. PHIRB's 'Statistical Policy Statement on Confidentiality' can be found in the Statistics Charter at:</p> <ul style="list-style-type: none"> <li>• <a href="https://www.health-ni.gov.uk/publications/doh-statistics-charter">https://www.health-ni.gov.uk/publications/doh-statistics-charter</a></li> </ul>