

Wellbeing in Northern Ireland, 2021/22

Background Quality report

9 November 2022

This report provides information on the quality of the data used to produce the official statistics: [Wellbeing in Northern Ireland, 2021/22](#). It informs users about the quality of the information upon which they may be drawing conclusions and making decisions.

Introduction

Context for the quality report.

The report published by PfG Analytics and NISRA's Statistical Coordination Branch provides figures for Wellbeing in Northern Ireland for 2021/22.

The report provides 2021/22 estimates for Northern Ireland across four areas:

- Loneliness
- Self-efficacy
- Personal Wellbeing (Life satisfaction, Worthwhile, Happiness and Anxiety)
- Locus of Control

The statistical product includes a publication containing charts and associated commentary, as well as detailed tables and standalone infographics to meet the needs of different users. The background to the publication, as well as key methodology and quality information is included within the publication. In addition, all data is provided in Open Document spreadsheets.

This is the second iteration of the 'Wellbeing in NI' report, which replaced the following three previously published reports:

- [Loneliness in Northern Ireland](#)
- [Self-efficacy, Locus of Control & Life Satisfaction in Northern Ireland](#)
- [Personal Wellbeing in Northern Ireland](#)

Following user feedback and to make data more accessible and comparable for each of these Wellbeing metrics, statistical teams in The Executive Office and the Northern Ireland Statistics and Research Agency (NISRA) produced the first "Wellbeing in Northern Ireland" report in October 2021.

The data in this report are derived from the Continuous Household Survey (CHS). The CHS is a continuous, representative survey of individuals aged 16 and over, which is designed and conducted by the Central Survey Unit, part of NISRA.

The achieved sample size for the CHS was 4,103 in 2021/22.

The self-efficacy, personal wellbeing and locus of control questions have been included since 2014/15 and seven years of data are currently available for analysis. The loneliness question has been included since 2017/18 and four years of data are currently available for analysis. Standard questions are included each year, allowing for comparability over time.

Methodological Considerations

The coronavirus pandemic impacted data collection of wellbeing metrics in 2020/21 and 2021/22, resulting in a change in data collection mode and reduced sample size for 2020/21. Users should take this into consideration when interpreting the 2021/22 results and care should be taken when comparing these to findings published prior to 2020/21. For this reason, a dotted line has been added to all time series graphs within the report to highlight the change in methodology between the 2019/20 and 2020/21 reporting years.

Relevance

The degree to which the statistical product meets user needs in both coverage and content.

Wellbeing is personal and subjective – it encompasses the environmental factors that affect us, and the experiences we have throughout our lives. Wellbeing can fall into traditional policy areas such as economy, health and education. However, wellbeing also crucially recognises the aspects of our lives that we determine ourselves: through our own capabilities as individuals; how we feel about ourselves; the quality of the relationships that we have with other people; and our sense of purpose

The Wellbeing report provides 2021/22 estimates for Northern Ireland across four areas:

- **Loneliness** – measures the frequency with which people report feeling lonely.
- **Self-Efficacy** – a person’s belief about their capabilities to exercise influence over events that affect their lives
- **Personal Wellbeing** – measures how satisfied people are with their lives, their levels of happiness and anxiety, and whether or not they think the things they do are worthwhile
- **Locus of Control (LOC)** – the degree to which a person feels in control of their life. Individuals with an internal LOC believe in their own influence and control while those with an external LOC believe control over their lives is determined by outside factors

The measures for loneliness and personal wellbeing adhere to ONS UK harmonised principles. The questions appear on a range of surveys both national and regional allows comparisons with other UK regions. Comparable data for self-efficacy and locus of control are not available for the UK or the Republic of Ireland. While self-efficacy data are collected as part of the UK longitudinal study, Understanding Society, these are not comparable with the data in this report due to differences in question design.

The data produced in this report are used in the overall monitoring of wellbeing in NI. There is an increasing demand for this information to inform the policy-making process, both in NI central government and local government, and thus the user group for this publication is diverse.

Consultation is carried out regularly with key users to ensure the publication covers the main requirements for users. This engagement highlighted the need for data at lower geography levels. Data is now published by Parliamentary constituency and can be accessed in the Accompanying tables.

The collection of loneliness, self-efficacy, personal wellbeing and locus of control measures via the CHS includes population level figures and also allows comparison between different sub groups of the population (e.g. Age bands or Sex), including [Section 75 categories](#) where possible.

It is worth noting that we are unable to report on some Section 75 categories due to small sample sizes. We will continue to review these categories for future publications.

Users have previously expressed a need for demographic profiles of those who have poorer wellbeing i.e. breakdowns of the various sections of our society who are likely to be lonely ‘often always’. In order to complete this analysis a larger sample size would be required. This will also be reviewed for future publications as sample sizes increase.

Accuracy and Reliability

The proximity between an estimate and the unknown true value.

The data in this report are derived from the Continuous Household Survey (CHS). The CHS is one of the largest continuous surveys carried out in Northern Ireland. The survey is designed and administered by the Central Survey Unit (CSU), NISRA. It is based on a sample of the general population, aged 16 and over, resident in private households and has been running since 1983.

Sample and response rate

The CHS is based on a systematic random sample of addresses drawn from the NISRA Address register (NAR). The NAR is developed within NISRA and is primarily based on the Land and Property Services (LPS) Pointer database of domestic addresses. The Pointer address database for Northern Ireland is maintained by Land & Property Services (LPS), with input from Local Councils and Royal Mail. The addresses are sorted by district council and ward, so the sample is effectively stratified geographically. A starting point in the sampling frame is randomly selected and then every *n*th (fixed interval) is selected by counting through the frame. As the survey is asked to a representative sample of the Northern Ireland population there are no major coverage issues. People living in institutions are excluded. In 2021/22, as in 2017/18 – 2020/21, the CHS was based on a systematic random sample of 9,000 addresses. From 2014/15 to 2016/17 the CHS was based on a systematic random sample of 4,500 addresses. In 2021/22 the overall response rate was 41% (4,103 individuals). This is higher than the previous year's response rate of 16% but still lower than pre pandemic response rates (55% in 2019/20).

Due to the COVID-19 pandemic, NISRA suspended all face-to-face interviews, or CAPI (Computer Assisted Personal Interviewing), they were replaced by telephone interviewing, or CATI (Computer Assisted Telephone Interviewing), with all interviews from April 2020 onwards conducted by telephone.

Responses from the 2020/21 reporting year showed that switching to CATI and relying on sampled households to contact CSU negatively influenced response rates. From July 2021, with the lifting of some restrictions, NISRA implemented the 'knock to nudge method'. This meant that interviewers could once again call at sampled addresses to encourage people to participate. Interviewers were not permitted to enter the property, only to collect contact information to complete the survey using CATI at an agreed time.

Both CAPI and CATI allows plausibility and consistency checks to be incorporated to improve data quality. Data are returned from the field via a Secure File Transfer Portal (SFTP). Data is downloaded onto secure network drives within NIGOV and processed through the CHS data management system. Data are coded and fully validated by CSU statistical staff.

The questionnaire is scripted in Blaise which allows CSU staff to define range and consistency checks for each question and to control routing throughout the questionnaire. The data are subject to further validation checks including treatment of outliers and detailed consistency checking including non-credible checks.

Non-response bias and sampling error

Non-response

The CHS aspires to interview everyone aged 16 or over at a selected household, but non-response, either by the household as a whole or by individuals within the household introduce non-response bias to the results. To counter this, data are weighted in order to produce estimates that better represent the population. The adjustment made to any data may be less than or greater than 1, but will generally be reasonably close to 1. In 2021/22 a chi square goodness-of-fit test showed that the CHS sample was not representative of the population by age and sex when compared with the Population and Migration Estimates for Northern Ireland. To counter this, a range of different weights have been applied to account for how the various sample groups differ from that they represent. Cases have been weighted to adjust for age and sex. This reduces (but does not completely eliminate) error. All reported means/proportions have been weighted.

Sampling Error

The 95% confidence intervals for each estimate have been included in the data charts and tables which accompany the report. These confidence intervals represent the ranges either side of the CHS estimates which are 95% certain to include the true values for the population.

For example, 20.2% of the Northern Ireland population reported that they were lonely “at least some of the time” in 2021/22; we can be 95% certain that the true (if we surveyed everyone and not just a sample) 2021/22 figure for the Northern Ireland population falls between 19.0% and 21.4%.

It is the nature of sampling variability that the smaller the group whose size is being estimated, the (proportionately) less precise that estimate is. Estimates for groups where the achieved sample is less than 100 have been omitted from the report, as they are unlikely to be reliable. These instances have been denoted by an asterisk (*) in the tables.

Timeliness and Punctuality

Timeliness refers to the time gap between publication and the reference period. Punctuality refers to the gap between planned and actual publication dates.

PfG Analytics and Statistical Coordination Branch, who have worked in collaboration to produce the report, received the final validated dataset in September 2022.

‘Wellbeing in Northern Ireland, 2021/22’ was published in November 2022 – 5 months after the end of the reference period. This was later than planned due to receiving a revised final validated dataset in September 2022 due to an issue with the weight 1 variable in the previous dataset supplied in July 2022.

The report was published on the planned date, as pre announced on the Executive Office’s ‘National Statistics Protocol and Compliance’ page and Gov.uk.

Accessibility and Clarity

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.

The ‘Wellbeing in Northern Ireland, 2021/22’ report was published in PDF format on the Executive Office website on the pre-announced publication date. The report is also available in alternative formats upon request.

A link to the report was emailed to a list of key users and an Infographic containing key statistics, along with a link to the publication, was published on all NISRA social media sites on the morning of its release.

Within the report, a number of charts have been provided with titles, axis names and footnotes added to help clarify certain information where applicable. Additionally, the report includes a ‘Technical Notes’ annex which provides summary background information, definitions and methodological explanations.

Accompanying data tables, in Microsoft Excel and OpenDocument Spreadsheet format, are also available on the Executive Office’s website.

Within the report, key findings have been summarised using infographics.

Questions with regards to accessibility and clarity have been included in the user survey.

To enable users to easily access data by sub population breakdowns, the statistical team have worked with the NISRA Tech Lab to create the Wellbeing in NI Dashboard. The dashboard contains time series data for all subpopulation breakdowns and can be exported for use in your own reports and research publications.

The contact details for the producing statisticians have been included in the Annex section of the report.

Coherence and Comparability

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.

The statistics contained within the report are derived solely from the CHS. The self-efficacy, personal wellbeing and locus of control questions have been included since 2014/15 and seven years of data are currently available for analysis. The loneliness question has been included since 2017/18 and four years of data are currently available for analysis. Standard questions are included each year, allowing for comparability over time.

Loneliness

The Office for National Statistics (ONS) [Guidance for Measuring Loneliness](#) recommends loneliness questions for adults and children and how to interpret and report findings. The CHS incorporates the recommended direct measure of loneliness. The direct measure of loneliness is used in various surveys across the UK, as reported by the [Government Statistical Service \(GSS\) Harmonisation team for loneliness](#). This will allow for comparison across different administrations.

Personal Wellbeing

The Office for National Statistics (ONS) [Guidance for Measuring Personal Wellbeing](#) recommends four measures (Personal wellbeing ONS4) and how to interpret and report findings. The CHS incorporates the recommended four measures of personal wellbeing.

The ONS4 are used in various surveys across the UK, as reported by the [Government Statistical Service \(GSS\) Harmonisation team for Personal Wellbeing](#). This will allow for comparison across different administrations.

Personal wellbeing data for Northern Ireland has also been collected by the Office of National Statistics (ONS), as part of the Annual Population Survey (APS), which covers the whole of the UK.¹ The APS uses the same measurement for personal wellbeing as the CHS, with the same eleven point Likert scale for measurement. The headline results for personal wellbeing measures between the two are broadly similar. The ONS reported life satisfaction, worthwhile, happiness and anxiety scores for NI in 2021/22 of 7.7, 8.0, 7.6 and 2.8 respectively, while 'Wellbeing in Northern Ireland, 2021/22' reported life satisfaction, worthwhile, happiness and anxiety scores of 7.7, 7.9, 7.7 and 2.8 respectively. A comparative analysis of overlapping confidence intervals showed that there were no significant differences observed between the two outputs.

The need for wellbeing information and increased focus on policy making decisions being made through a "wellbeing lens" has led to the personal wellbeing ONS4 questions being included in a number of NI household surveys. Personal wellbeing questions are included in the NI Continuous Household survey, NI Health survey, NI Labour Force Survey, Family Resources Survey and the NI Covid Opinion survey. Following user feedback to make data more accessible and comparable with other Wellbeing metrics, (e.g. loneliness, self-efficacy and locus of control) and in line with the UK Statistics Authority Code of Practice, NISRA made the decision to move the official data source from Labour Force Survey (LFS) to the Continuous Household Survey in 2020/21.

¹ [Personal well-being in the UK - Office for National Statistics \(ons.gov.uk\)](#)

Traditionally the CHS has a larger sample size than LFS and as a result will facilitate a wider range of sub population breakdowns. It is anticipated that cross analysis with other wellbeing metrics which appear in the CHS (e.g. loneliness, self-efficacy and locus of control) will be conducted in subsequent years as sample sizes return to pre-pandemic levels.

The introduction of the collaborative “Wellbeing in Northern Ireland” report in 2020/21 and the change in the official source of personal wellbeing measures, means that data published in this report will not be directly comparable with personal wellbeing data published by NISRA prior to 2020/21. To allow comparability over time, a back series of personal wellbeing data from the CHS was conducted for additional analysis and is published on the [Wellbeing in NI page](#). As part of the quality assurance process, comparative tests were carried out on the 2019/20 and 2021/22 personal wellbeing data from both the CHS and LFS. All estimates were found to be within 0.1 of a difference (when rounded to 1 decimal place). There was one significant difference observed between the 2019/20 life satisfaction scores on both surveys, this difference was not observed in 2021/22. This may be a result of methodological differences in the 2 surveys. Further information on the LFS methodology can be found on [NISRA’s LFS page](#). Users should consider this if referring to previous publications based on LFS data. It should also be noted that life satisfaction data derived from CHS has been published annually as a standalone personal wellbeing measure in the [Self-efficacy, Locus of Control & Life Satisfaction in Northern Ireland](#) publication.

Self-Efficacy and Locus of Control

Comparable data for self-efficacy and locus of control are not available for the UK or the Republic of Ireland. While self-efficacy data are collected as part of the UK longitudinal study, Understanding Society, these are not comparable with the data in this report due to differences in question design.

Trade-offs between Output Quality Components

Trade-offs are the extent to which different aspects of quality are balanced against each other.

It is the nature of sampling variability that sample size affects the precision of estimates; the smaller the sample size, the (proportionately) less precise the estimate. Where the achieved sample for a group is less than 100, estimates are omitted as they are unlikely to be reliable. These instances have been denoted with an asterisk (*). At times (e.g. in the breakdown for Marital Status) it is possible to combine groups which would otherwise be omitted, thus producing large enough sample sizes to allow for analysis to be carried out.

In previous [Loneliness in Northern Ireland](#) publications, the responses for ‘Often/Always’, ‘Some of the time’ and ‘occasionally’ were combined together as ‘More often lonely’ to allow for more in depth analysis. However, users advised us that analysis by individual categories would be more useful as it would allow them to identify those with chronic loneliness. Following further consultation with key users, it was decided that the categories for ‘Often/Always’ and ‘Some of the time’ would be combined to ensure sample sizes were still large enough to provide meaningful analysis. A breakdown by all 5 categories has been included in the accompanying tables.

Assessment of User Needs and Perceptions

The processes for finding out about users and uses, and their views on the statistical products.

The statistical teams from The Executive Office and NISRA have met with relevant policy areas and the 'Loneliness Action group'. The team will continue to liaise with these users to ensure needs and perceptions are met.

The lead statistician for loneliness in NI liaised with the Office for Statistics Regulation (OSR) with regards to their systemic review on loneliness.

As a result of the findings from the systemic review and user engagement, data is now published by parliamentary constituencies and can be accessed in the accompanying tables.

Contact details for the responsible statisticians have been provided within the main report. Feedback can also be provided via this [online user survey](#).

Performance, Cost and Respondent Burden

The effectiveness, efficiency and economy of the statistical output.

The total cost for the inclusion of a question within the CHS is approximately £4,500. The overall cost of running the CHS cannot be provided as this is commercial-in-confidence

An annual survey control return is completed for the survey. The compliance burden is calculated from the median time taken to complete the wellbeing questions and the number of respondents. In 2021/22 the questions took on average, 2 minutes and 15 seconds for respondents to complete. Therefore, there is an estimated overall compliance burden of 154 hours.

Confidentiality, Transparency and Security

The procedures and policy used to ensure sound confidentiality, security and transparent practices.

NISRA follows the ['Privacy and data confidentiality methods: a Data and Analysis Method Review \(DAMR\)'](#) in the collection and dissemination of these statistics.

The CHS data received by the statistical teams are anonymised (name/address information removed). In addition, the data represent a sample of the population and there is no way to identify the sample chosen from the population. The data are held within TEO's secure record management system, with restricted access and subject to approved record retention protocols. Responses are presented as weighted percentages and analysis is only carried out if the sample size in the population sub-category is large enough. Therefore no additional disclosure control is required. Statistical outputs are only seen by authorised staff prior to their publication.

As part of the staff induction process and their ongoing personal development plan, staff regularly complete mandatory training on the Code of Practice and managing information.