In this article, we explore official statistics on health inequalities across the UK. We hear from producers from each of the four countries of the UK about their current work and future plans, and outline our next steps in this important area.

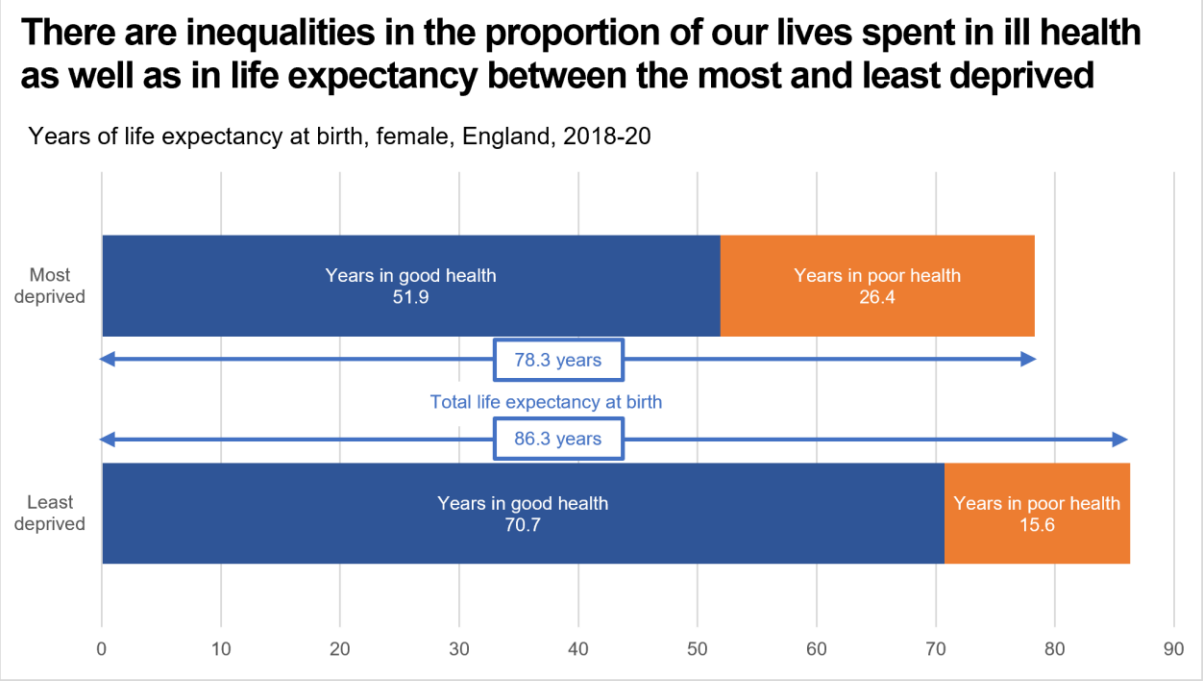
Statistics on Health Inequalities in the United Kingdom

Introduction

Health inequalities can be defined as systematic, avoidable and unfair differences in people's health across the population and between specific groups. Organisations such as the World Health Organization and the King's Fund have published helpful resources on health inequalities, which include detailed descriptions of how health inequalities can be measured, analysed and addressed.

A wide range of factors contribute to health inequalities. These include individual physiological, psychosocial and lifestyle factors; community influences; living and working conditions; and environmental conditions. Interventions to address health inequalities must therefore focus not only on supporting individuals but also on managing these determinants of health.

Data from the Office for National Statistics (ONS) show that people from the most deprived areas spend more years in poor health and have shorter lives overall than those from the least deprived areas. The chart below illustrates this for females, but findings are similar for males.



Source: Office for National Statistics.

Evidence suggests that recent events, such as the COVID-19 pandemic and the cost-of-living crisis, have made health inequalities worse. The four UK nations have developed various strategies to tackle inequalities – for example, the Labour

Government's Manifesto recognises that the UK has stark health inequalities and, as part of its broader health mission, commits to tackling the social determinants of health. Given the increasing emphasis on understanding and tackling health inequalities, we felt it was important to identify what data and statistics are currently published on this topic, what gaps remain and what plans producers have in place to develop their statistics.

Official statistics on health inequalities

Data and statistics about health inequalities can tell us which groups are experiencing poorer health outcomes and why, and how inequalities are improving or worsening over time. They can also give us vital information on the impact of events such as the COVID-19 pandemic and the cost-of-living crisis, guide policies and targeted interventions to tackle inequalities, and indicate the effectiveness of these interventions.

The main official statistics on health inequalities were previously thought to be those looking at the relationship between socioeconomic circumstances and outcomes such as life expectancy, healthy life expectancy and avoidable mortality. More recently though, statistics producers have started to focus on broader factors, such as the social determinants of health inequalities and their outcomes. For example, The Department of Health (Northern Ireland) publishes an annual report on the indicators underpinning the Making Life Better strategy. This strategic framework provides direction for policies and actions to improve the health and wellbeing of the people of Northern Ireland and reduce inequalities in health. Meanwhile, Public Health Scotland's ScotPHO online profiles tool contains a Care and Wellbeing Profile focussed on indicators relating to population health, inequalities and wider determinants of health. The indicators in the Profile are structured around the Marmot framework, and support the aims of the Scottish Government's Care and Wellbeing Portfolio.

To fully understand health inequalities, it is important to have demographic data, such as that on ethnicity and deprivation level, available for analysis. We often hear that users of statistics would like more information about demographics to explore inequalities, for example in our assessment of A&E statistics in England last year. The need for more-granular data can present challenges, for example if demographic information is not collected in an administrative dataset or if analysis of multiple variables results in small sample sizes.

Producers have been using novel approaches, such as data linkage and the use of rolling datasets, to tackle some of these challenges. One example is the experimental statistics release looking at inequalities in mortality involving common physical health conditions in England. This was a collaborative piece of work carried out between ONS and the Department of Health and Social Care, with input from clinical experts from across the NHS. The analysis involved linking census data to death registrations, and enabled ONS to publish age-standardised mortality rates broken down by sociodemographic characteristics such as sex and ethnicity. Another example of novel approaches to analysis is the most recent National Survey for Wales. Statisticians in Welsh Government pooled three years of data so that they could carry out analyses on protected characteristics such as disability, ethnic group,

marital status, religion, and sexual orientation. This would not have been possible to do with data from a single year. New systems are also being developed within the NHS in Wales to better capture and link patient characteristics. This will allow for a greater analysis and understanding of inequalities within health and social care in Wales.

The annex contains more-detailed summaries of current work and future plans written by producers from each of the four countries of the UK.

Next steps

Through our review of the published statistics and our conversations with producers, it is clear that producers across the four nations of the UK are committed to increasing knowledge on health inequalities. Producers are collaborating both across departments and with organisations outside of government to do so. We encourage producers to continue this work and will discuss progress and challenges with them through our regular engagement.

We will continue to focus on health inequalities in our regulatory work, such as assessments and compliance checks of health statistics, particularly where users highlight gaps in information which impact their ability to understand inequalities. Since inequalities cut across all aspects of health (public health, conditions and diseases, access to and experiences of services and treatments, and the outcomes of all these factors), we think it is important that teams working to produce statistics across all these areas consider how they can incorporate analysis of inequalities into their outputs.

Finally, we will monitor the various strategies and policies of governments across the UK aimed at reducing health inequalities, to understand what metrics will be used to measure their success. Data transparency is important as it ensures that progress is visible and can be scrutinised, allowing the public to hold governments to account for their commitments to reducing health inequalities.

Annex: Summaries of current work and future plans of producers from the four UK countries

England

Alistair Rose, Population Health Improvement and Disparities Analysis, Secondary Prevention Directorate, Department for Health and Social Care (DHSC)

The Office for Statistics Regulation's COVID-19 lessons learned report called for stronger analytical leadership and co-ordination of health and social care statistics. In response to this, we have convened a Health and Social Care Statistics Leadership Forum (HSCSLF) bringing together statistical leaders in the Department of Health and Social Care (DHSC) (including the Office for Health Improvement and Disparities (OHID)), NHS England (NHSE), the NHS Business Services Authority (NHSBSA), the Office for National Statistics (ONS) and the UK Health Security Agency (UKHSA).

Through this group we have consulted on changes to regular health and care statistical products, including changes aimed at moving towards an improved and more efficient health and social care statistical landscape. Section 8 and Annex A of the consultation included a list health inequalities products published and regularly updated in England. The consultation ran between December 2023 and March 2024, and a response to the consultation was published on 21st November 2024.

Data and tools

There are numerous tools and ad hoc publications produced by government departments in England with health inequalities as the focus. However, sociodemographic information (and therefore the potential for assessing health inequalities) is present in many wider health statistics publications.

ONS produces a number of both regular and ad hoc statistical publications relating to health inequalities. Outputs focussing on life expectancy and avoidable mortality cover both England and wider UK countries and include Health state life expectancies for the UK / England, Northern Ireland and Wales, health state life expectancies by national deprivation quintiles in Wales and deciles in England, and avoidable mortality in England and Wales.

Examples of ad hoc or experimental statistics relating to health inequalities include:

- Health inequalities by built up area and ethnic group: England, March 2021 to May 2023
- Sociodemographic differences in the risk of testing positive for coronavirus (COVID-19), England: 12 September 2020 to 13 December 2021
- Inequalities in mortality involving common physical health conditions, England, 21 March 2021 to 31 January 2023
- Sociodemographic inequalities in suicides in England and Wales: 2011 to 2021

DHSC provides data to allow monitoring of progress to reduce health inequalities in England. There are several tools to help with this:

The Public Health Outcomes Framework is updated annually to show the level of inequality in life expectancy and healthy life expectancy between the most and least deprived in England. The framework, and many other of the department's public health profiles, sit on a platform developed internally to allow inequality data to be displayed. Differences in outcomes between local authorities can be seen at a glance, and for many indicators users can access breakdowns by factors such as sex, age and level of deprivation. Where data are available, differences are displayed between ethnic groups.

The department's Health Inequalities Dashboard was developed to present trends in health inequalities in England via another interactive tool. The dashboard has a focus on inequalities in child health and behavioural risk factors, as well as providing data on some of the wider, social determinants of health. By summarising the level of inequality between population groups (such as by ethnicity and level of deprivation), the dashboard provides an effective means to monitor progress to reduce disparities.

Other tools developed by the department provide more in-depth data, including the Segment Tool, which shows the causes of death contributing to gaps in life expectancy, and the Spotlight Dashboard, which focuses on data for inclusion health groups: people who are socially excluded and often experiencing stigma and discrimination.

The UKHSA provides surveillance across health hazards, including infectious diseases and environmental hazards, and is committed to improving the visibility of inequalities within the data. For example, UKHSA has highlighted the burden of disease on those with social risk factors in the Tuberculosis in England report, and has identified inequalities in emergency hospital admissions for winter periods by ethnicity and deprivation.

Gaps, research and future directions
There is no established methodology for translating policy impacts into changes in Healthy Life Expectancy (HLE) at a national or sub-national level. We are currently undertaking work to build up the evidence base on expected benefits from relevant health and non-health policies, and scoping approaches to understand what it could mean for HLE.

The Health Inequalities Theme Group, which brings together analysts from across the health system with an interest in health inequalities data and analysis under the UK Health Statistics Steering Group (UKHSSG), meets three times a year to share updates and generally further the production and use of health inequalities data. The group's representation was initially England only but, since the beginning of 2024, has been extended to include representatives from Wales, Scotland and Northern Ireland.

DHSC also funds research to improve the health and wellbeing of the nation through the National Institute of Health and Care Research (NIHR). Several NIHR-funded research initiatives are aiming to fill gaps in and supplement the evidence base on health inequalities. For example, applicants for Policy Research Programme (PRP) funding are now required to consider health inequalities in their applications, and a number of projects have been funded recently under the theme of health inequalities.

Wales

Dr William Perks, Head of Health, Social Services and Population Statistics and Analysis, Welsh Government
Every year we produce an annual Wellbeing of Wales report, to help us assess whether we are making progress against the national wellbeing goals, one of which is 'A healthier Wales'. The report considers progress against 50 national indicators, alongside a range of other relevant data. These include national indictors and national milestones which directly measure inequalities, such as 'Healthy life expectancy at birth including the gap between the least and most deprived'. Where inequalities are not specifically mentioned in the national indicator, we also seek to give this picture by as many characteristics as the data will allow.

Welsh Government and other organisations in Wales produce a number of both regular and ad hoc statistical publications relating to health inequalities, including work this year to pool three years of data from the National Survey for Wales. This allows us to publish data on more protected characteristics than we are able to on a year-to-year period, such as disability, ethnic group, marital status, religion and sexual orientation.

Other improvements to data recording and analysis in relation to health inequalities include:

- Data are now available in the SAIL Databank from the 2011 and 2021 censuses, which enables linking across health and census records and improves coverage characteristics.
- New systems are being developed within the NHS to better capture and link characteristics, for example the Welsh Emergency Care Dataset (WECDS) and the National Data Resource (NDR).
- Where characteristics data are currently collected, we seek to publish these breakdowns as part of our usual statistical outputs, for example statistics on maternity and the workforce, to ensure transparency. We are consistently seeking to improve in this area and will be adding further breakdowns in our upcoming Admissions of patients to mental health facilities output. Where characteristics data are not currently collected, we carry out an inequalities audit to improve these outputs, and to be transparent about what data are collected and hold ourselves to account.
- The Workforce Race Equality Standard (WRES) was introduced to improve the quality and availability of workforce data and to instigate and measure evidence-based change. For example, the WRES measures disparities in the experience of Black, Asian and Minority Ethnic NHS staff. In September 2024 the Inaugural Workforce Race Equality Standard report for Wales was published. The first data collection for social care staff employed by local authorities and NHS Wales primary care contracted staff concluded towards the end of 2024, with national analyses for both expected before February 2025.

Scotland

Catherine Bromley, Head of Service (Digital Strategy & Product Development) and Deputy Head of Profession for Statistics, Public Health Scotland (PHS), and Neil White, Senior Statistician, Directorate for Population Health, Scottish Government

Within Scottish Government we are reviewing our outputs for users on health inequalities reporting given the wide range of information out there, published by different organisations in different places, making the data landscape quite difficult to navigate. Whilst for the Scottish Government this means reviewing the Long-Term Monitoring of Health Inequalities official statistics report, we will also work closely with Public Health Scotland to improve how health inequalities more generally are presented and reported to users.

As part of this we are looking at how we report health inequalities in the Care and Wellbeing Profiles, a source of information to support the aims of the Care and

Wellbeing Portfolio. The profiles are under development and are hosted as a specific topic-based profile within Public Health Scotland's ScotPHO online profiles tool. They take a strategic look across multiple topic areas, as many of the influences on health outcomes lie outwith health and social care. The indicators included in the Care and Wellbeing Profiles are structured around the evidence-based Marmot framework, which looks at the social determinants of health and the conditions in which people are born, grow, live, work and age, which can all lead to health inequalities.

Public Health Scotland (PHS) was established in April 2020 and works collaboratively with Scottish Government, local authorities, the third-sector and other partners to harness data and intelligence to progress our ambition for Scotland to have the best life expectancy in Western Europe and to eliminate inequalities in health between communities. In December 2024, PHS launched a new Collaboration for Health Equity in Scotland (CHES) with University College London's Institute of Health Equity, led by Professor Sir Michael Marmot. CHES aims to strengthen and accelerate the action underway to improve Scotland's health, increase wellbeing and reduce health inequities. CHES's work will be underpinned by data to support both national and local action, working in partnership with NHS and local authority colleagues in Aberdeen City, North Ayrshire and South Lanarkshire. The first output from the collaboration will be a report in spring 2025 presenting data and analysis of the health equity system in Scotland.

Key indicators of health inequalities based on area deprivation are available via the ScotPHO tool and are also included in PHS statistics about health service use. For example, our A&E dashboard, launched in 2023, shows how people in the most deprived areas account for more than twice as many A&E attendances as those from the least deprived areas. Similarly, the Scottish Pregnancy, Births and Neonatal Data dashboard provides data on measures such as antenatal booking rates (one of the recommended Marmot indicators) with links to PHS's statistics showing that pregnant women in the most deprived areas have lower rates of antenatal bookings by 12 weeks compared with those from the least deprived areas.

We are also expanding our measures of health inequalities and their impact in response to data gaps highlighted during the COVID-19 pandemic. PHS has been working with the Scottish Government, the Racialised Health Inequalities in Health and Social Care Steering Group and the Anti-Racism Interim Governance Group to Develop National Anti-Racism Infrastructure (AIGG) to develop better measures of ethnicity and to progress the commitments made to improve the quality and consistency of protected characteristics data in the Health and Social Care: Data Strategy and Scotland's Equality Evidence Strategy 2023–2025. The second PHS racialised health inequalities report was published in 2023 with a focus on maternity and early years data. We are also developing new data to better understand the impact of climate change on people's health and wellbeing and its potential to widen health inequalities.

Northern Ireland

Caolan Laverty, Deputy Principal Statistician, Health Inequalities, Northern Ireland Statistics and Research Agency (NISRA)

My role in NISRA: Health Inequalities

As an outposted NISRA statistician, I work in the Information & Analysis Directorate within the Department of Health (Northern Ireland). For the past 11 years, I have led a small team on the production and expansion of the Northern Ireland Health & Social Care Inequalities Monitoring System (HSCIMS), which itself has been in existence for over 20 years. HSCIMS collects data from a wide range of administrative and survey sources to produce and monitor health inequalities across over 60 health indicators from life expectancy and cause-specific death rates to childhood obesity and hospital admissions.

We analyse inequalities as gaps in health outcomes between different population groups including urban and rural populations, males and females, etc. However, our main outputs relate to deprivation. We produce an annual report which assesses trends in regional inequality gaps between the 20% most and 20% least deprived areas in NI, and sub-regional inequality gaps within Health and Social Care Trust and local council areas.

We also produce an annual life expectancy report which includes many analyses of all life and health expectancies, including using life table decomposition methods to break down both changes over time as well as inequality gaps by age and cause of death contribution.

Wider Determinants of Health and Health Inequalities

In addition to assessing health inequalities, we collect data from across a range of government departments and bodies on some of the key wider social determinants of health and report annually on trends. This includes gathering indicators on factors such as education, employment, air/water quality and housing standards, as well as social capital. The Health Inequalities series of reports are key to monitoring the progress of the department's Making Life Better strategy, but also to identifyingemerging threats and trends in key data so that we can focus action and activity on those most at risk in our society.

Health inequalities remain a particular challenge in Northern Ireland. In order to address this issue, Making Life Better seeks to tackle the wider social determinants of health and reduce inequalities within these through specific actions and programmes that can be delivered across departments and form part of a focused action plan. Collaboration is at the heart of Making Life Better, and the department will continue to work together with government and partner organisations to ensure actions are delivered in a cost-effective way to improve outcomes for our population. Making Life Better is supported by a number of Department of Health (DoH)-led strategies that are designed to help improve population health and wellbeing through targeting specific areas where health inequalities are most prominent in our society, including obesity prevention, substance use and tobacco control, among others.

As part of our analysis, my team support these strategies with the collection of robust data to produce meaningful analysis to assess and monitor progress against actions and targets. One form of analysis that we look at is the Slope Index of Inequality (Sii)

to assess the social gradient in health, which recognises the 2010 Marmot Review and the concept of proportionate universalism. Marmot demonstrated that there is a social gradient in health that runs from the top to bottom of the socioeconomic spectrum. These wider, social determinants of health cannot be addressed just by ensuring everyone is given the same help and support, as the underlying structures and opportunities disadvantage certain groups.

Latest product developments

Over the past year we have been working on the development of a new Health Inequalities Dashboard, which was launched on 27th March 2024. This tool allows users to interact with the latest health inequality statistics and derive charts for their area of focus. We believe this will be particularly useful to policy officials, academics and local government officials when assessing inequalities within their areas of responsibility.

Future Plans

We are currently in the process of developing an interactive tool for exploring changes and gaps in life expectancy estimates. This will allow users to explore the classifications of death and age bands that contribute to life expectancy gaps and further drill down to look at causes and sub-causes of death within this. Through our continued engagement with customers and users, we believe that the interactive nature and graphical presentation of this media will help simplify the concept of life table decomposition and promote better use of these very informative statistics from a public health perspective.