HSC Public Health Agency

Health Intelligence

COVID-19 Evidence Overview – how will Covid-19 affect health inequalities?

What is it?

This is a broad overview of current evidence on the impact of Covid-19 on health inequalities.

It is not an in-depth review, rather a compilation of the main messages available at the date of the overview's issue (given at bottom of page). Evidence around Covid-19 is being produced at a fast rate and the picture is constantly changing.

Who is it for?

The Evidence Overview has been prepared as a resource for the Knowledge Management Cell. It can be shared with other Health and Social Care colleagues.

It is not intended for direct issue to members of the public.

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WHAT ARE HEALTH INEQUALITIES?

Health inequalities are **unfair** and **avoidable** differences in health across our population and between different groups within our society. They arise because of the conditions in which we are born, grow, live, work and age.

These conditions influence our opportunities for good health and how we think, feel and act. This shapes our mental health, our physical health and our wellbeing.

Health inequalities arise from differences in:

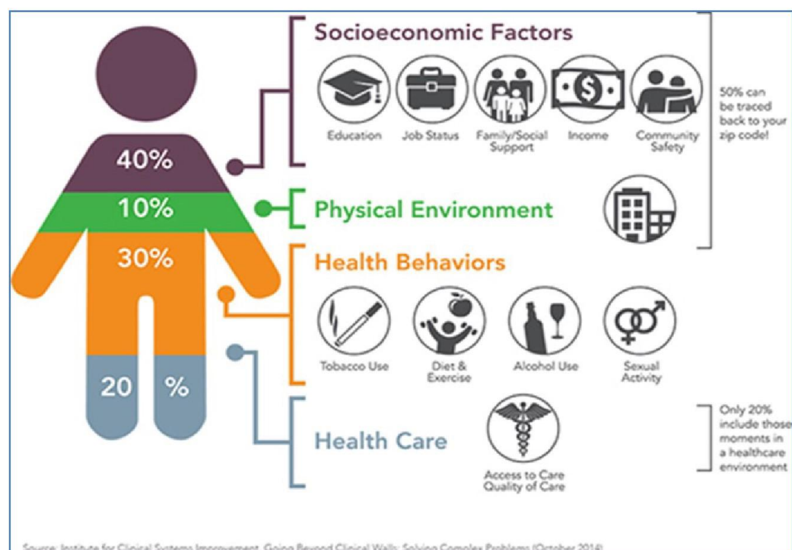
- wider determinants of health
- health behaviours
- healthcare

The **wider determinants of health** are the social, economic and environmental conditions in which we live that have an impact on our health. They include income, education, family/social support, access to green space and healthy food, the work we do and the homes we live in.

Our behaviour is a major determinant of how healthy we are. Smoking, poor diet, physical inactivity and high alcohol consumption are the four main behavioural risks to our health in the UK today.

There have been many studies into the relative impact of each of these factors on our health. Whilst there is still disagreement about the precise levels, it is now accepted that the **wider determinants of health** and **health behaviours** together have a much larger impact on our health than healthcare alone. See Fig 1.

Figure 1 – relative scale of factors affecting our health



HOW DO WE MEASURE HEALTH INEQUALITIES?

Life expectancy (LE) is one of the main ways used to measure a population's health status and so is also one of the most important measures of health inequality.

Life expectancy is closely related to people's socio-economic circumstances. The most common summary measure of these circumstances across a population is **deprivation**. The Northern Ireland Measure of Multiple Deprivation Measure (NIMDM 17) summarises how deprived people are within a **geographical area**. It is based on a set of factors that includes levels of income, employment, education and crime.

Another widely used measure of health inequality is how much time we spend in good health over the course of our lives. Two important measures of the amount of time that we spend in good health are **healthy life expectancy** (HLE) and **disability-free life expectancy** (DFLE). The first estimates time spent in 'good' or 'very good' health, based on how we perceive our general health. The second estimates, again based on self-reported assessment, time spent without conditions or illnesses that limit our ability to carry out day-to-day activities. Annual analyses of life expectancies and related deprivation gaps are issued by the Department of Health and can be found here.

Some deaths are avoidable through preventive interventions. Differences in rates of **preventable mortality** between population groups reflect differences in people getting the help that they need to lower their risk of developing potentially life-threatening illnesses. Data on preventable mortality can be found on the Department of Health Inequalities Report and the NIMDM 17 health and disability indicators.

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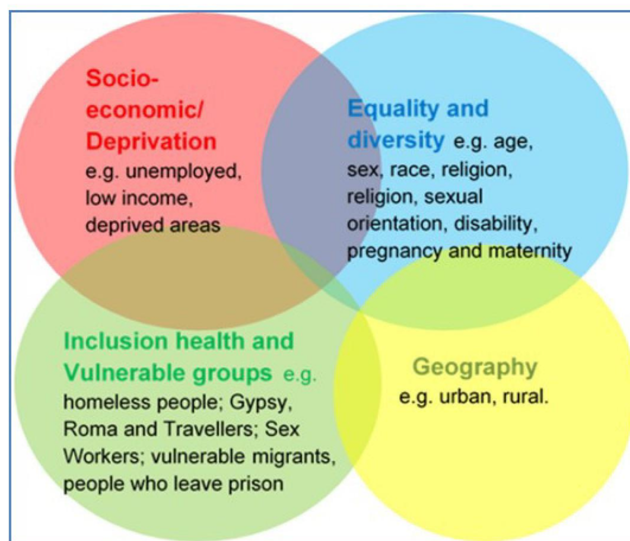
HOW DO HEALTH INEQUALITIES AFFECT PEOPLE IN NORTHERN IRELAND?

Health inequalities between population groups happen across four dimensions. We need to remember that these dimensions overlap and people can often fall into various combinations of them. See Fig 2.

Figure 2 – dimensions in which health inequalities occur in population groups



Source: https://www.rcplondon.ac.uk/news/covid-19-and-mitigating-impact-health-inequalities

In 2016-18, **life expectancy in Northern Ireland** was 78.7 years for men and 82.4 years for women. Men living in the least deprived areas can, at birth, expect to live 7.1 years more than men in the most deprived areas. For women, this gap is 4.4 years. There is a direct relationship between deprivation and life expectancy, known as the **social gradient** in health. The social gradient in health runs from top to bottom of the socioeconomic spectrum, meaning that health inequalities **affect everyone**.

In recent years the growth in life expectancy in Northern Ireland has **stalled** in the population as a whole, similar to the other UK countries.

Inequalities in both **healthy life expectancy** and **disability-free life expectancy** in Northern Ireland are **wider** than inequalities in life expectancy.

In 2016-18, men's **healthy life expectancy** was 59.7 years and women's was 60.8 years. Men living in the least deprived areas have a healthy life expectancy which is 14.0 years more than men living in the most deprived areas. For women, this gap is 15.2 years.

Disability-free life expectancy was 57.3 years for men and 57.2 years for women in 2016-18. Men living in the least deprived areas have a disability free life expectancy which is 14.5 years more than men living in the most deprived areas. For women, this gap is 13.9 years.

The Department of Health analyses deaths in Northern Ireland that could be avoided through wider public health interventions (**preventable mortality**). In 2014-18, 169 deaths per 100,000 population were identified as preventable. The **preventable death rate** in the most deprived areas was 292, compared to 103 in the least deprived areas (ie a gap of 184%). The NIMDM 17 includes an indicator on preventable death and data on standardised ratios and ranks at various geographical levels are available. These also demonstrate the link between rate of preventable death and deprivation.

A **long term condition** (LTC) is a condition that cannot at present be cured but is controlled by medication and/or other treatment/therapies. Having one (or more) long-term condition is a major cause of poor quality of life. Northern Ireland GP practices keep registers of people with long-term conditions. A comparison of the number of people in Northern Ireland on these registers in 2013 and in 2019 shows **widespread increases**. See Table 1.

Table 1 – increase in number of people in N Ireland registered as having long term conditions

Long term condition	Number of people on register 2013	Number of people on register 2019	Increase in number of people on register	% change
Depression	96,287	170,037	73,750	77%
Cancer	33,781	51,181	17,400	52%
Cardiovascular Disease Primary Prevention	37,781	50,608	12,827	34%
Heart Failure	14,410	18,323	3,913	27%
Diabetes	79,072	99,833	20,761	26%
Chronic Obstructive Pulmonary Disease	34,522	42,235	7,713	22%
Dementia	12,278	14,646	2,368	19%
Stroke	33,470	38,234	4,764	14%
Mental Health	16,110	18,192	2,082	13%
Hypertension	245,730	273,895	28,165	11%
Rheumatoid Arthritis	11,559	12,721	1,162	10%
Asthma	115,389	122,861	7,472	6%

An examination of the **health and disability indicators** in the NIMDM 17 shows that people who live in the most deprived areas in Northern Ireland are more likely to have **long term health problems/disabilities** and **mental health problems** than those living in the least deprived areas.

Results from the **Northern Ireland Health Survey** also show that having a longstanding illness, limiting long standing illness and/or an indication of possible psychiatric disorder are **more common in people living in the most deprived areas** compared to those living in the least deprived areas.

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Behavioural risks to health are more common in some population groups than in others. For example, results from the Northern Ireland Health Survey show that people who live in the most deprived areas are:

- more likely to **smoke** than those in the least
- less likely to **eat 5 portions of fruit/vegetables** a day

Other patterns in behavioural risks identified in the Northern Ireland Health Survey are:

- adult obesity - associated more with **women** than men and **older** age groups than younger ones
- fruit/vegetable consumption – **men** are less likely to achieve the recommended 5 portions a day than women
- drinking above recommended weekly limits – **men** are much more likely to drink more than the weekly limits than women

Risky health behaviours also tend to **cluster** together in certain population groups. An analysis of cumulative Northern Ireland Health Survey data undertaken by PHA Health Intelligence revealed that people living in the most deprived areas are more likely to have **multiple unhealthy behaviours** than those living in the least (behaviours included in analysis are - alcohol in excess of weekly limits, smoking, obesity, not meeting recommended levels of fruit/veg intake and not meeting recommended levels of physical activity).

As set out in Fig 2, relative deprivation is not the only aspect of our lives which is linked to health inequalities. Other aspects, such as having a **specific characteristic** (like age or disability) or being in a **socially excluded group** (eg homeless) are also associated with health inequalities. There are no regularly produced Northern Ireland statistics for most of these groups, but there is a wealth of evidence on the health inequalities they face.

For instance, there are a range of health inequalities affecting people with **learning disabilities**. The ‘Confidential Inquiry Report into the Premature Deaths of People with Learning Disabilities’ reviewed the deaths of 247 people with learning disabilities between 2010-12 and found the **median age of death** for men with learning disabilities to be 17% lower than the general population and 25% lower for women.

Evidence on how the causes of death of people experiencing **homelessness** compares with those of the general population found:

- The chances of homeless people dying from **alcohol-related causes** are x7 higher than for the general population.
- The chance of dying from drug-related causes is x20 for the homeless population compared to the general population.
- Homeless people have x7 the chance of dying from **falls** than the general population.

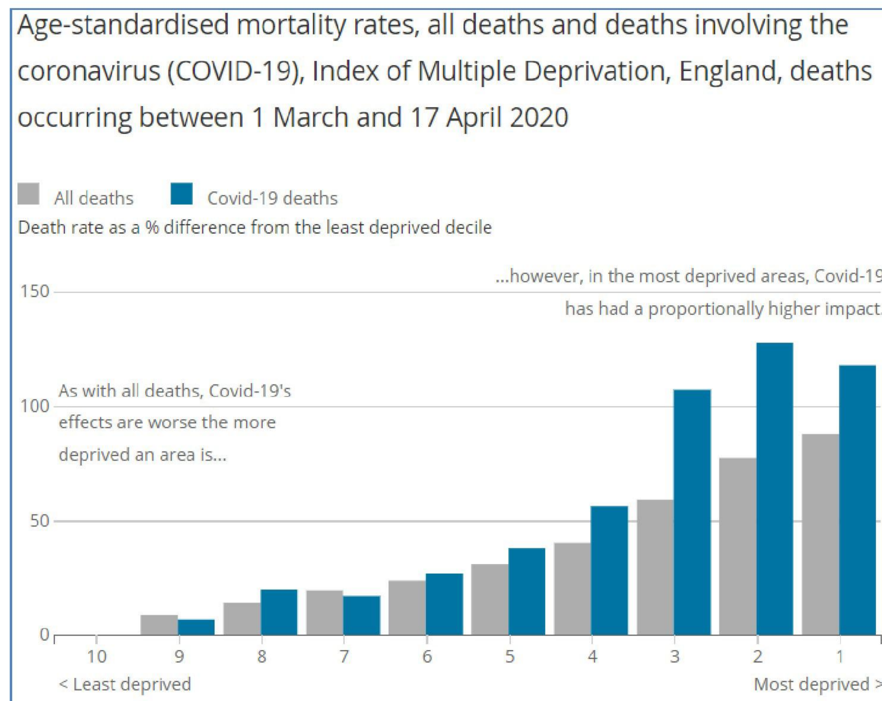
WHAT IS COVID-19 LIKELY TO DO TO OUR EXISTING HEALTH INEQUALITIES?

Covid-19 and the measures to control the it's spread have reached deep into our lives, affecting not only our health, but also our income, job security and social contacts – factors that underpin having healthy lives.

The Health Foundation has identified a number of dimensions in which the impact of Covid-19 will be felt. The first dimension is the direct impact of the virus itself, in terms of **death** and **serious illness**. Evidence so far suggests that the virus is more likely to kill those who are **older** and have **long term conditions** (especially hypertension, diabetes and ischaemic heart disease). As stated previously, long term conditions are not evenly distributed across the population and are more common in deprived communities.

ONS has released an analysis of **deaths** in England involving Covid-19. It shows that the virus has had a proportionally **higher impact** on the most deprived areas. See Fig 3.

Figure 3 – deprivation gap in mortality rates involving Covid-19 in England and Wales



A second dimension is the **indirect impact** on people with **acute conditions** not related to Covid-19. During March, Trusts re-designed their services to release hospital beds for treating patients with Covid-19. In April, concerns were being raised about significant drops in A&E use and admissions for urgent conditions via hospital emergency departments.

A third dimension will affect people with **long term conditions** or people needing less urgent care which may have been **interrupted**. General practice does much of the work of managing patients with long term conditions. As a result of the pandemic, the way general practice works has changed enormously. Patients have been urged not to avoid seeking help for serious non-COVID-19 symptoms, but there are concerns that early detection of cancers will reduce.

For other **long term conditions**, there is emerging evidence about access to services. For example, a survey of 2000 children and young people with mental health problems in the UK (undertaken in late March), found that three quarters of young people still had access to some sort of mental health support. But a quarter reported that services had been cancelled, or moved to the telephone or online (which created barriers for patients living at home).

A fourth dimension will be the **medium and long-term impact on health of the government interventions to restrict movement** to curb the transmission of Covid-19, eg increasing unemployment, domestic abuse, neglect and hardship.

Almost a quarter of adults living under lockdown in the UK have felt **loneliness**, raising concern about long-term risk to physical and mental health. Results from the Mental Health Foundation Longitudinal Study found that:

- Almost one quarter (24%) of UK adults have felt loneliness because of Covid-19
- The most affected group were young people (aged 18-24 years) – with more than four in ten (44%) saying they felt lonely.
- Feelings of loneliness have more than doubled over the lockdown period.

Early estimates show an unprecedented **economic** shock, with the Office for Budget Responsibility forecasting a 35% reduction in GDP in the second quarter of 2020. Research from the 2009 **financial crisis** found the downturn was associated with **poorer health outcomes**. Initial research on the impact of the lockdown on economic activity has already found higher levels of job and earnings losses for lower earners, younger workers and women. Surveys suggest food insecurity has also increased, driven by income loss and disruptions in the food supply.

There are also the **social consequences** of a prolonged lockdown and period of social distancing. Surveys show increases in anxiety and charities highlight a rise in people seeking help for domestic abuse. School closures may have negative and unequal consequences for pupils' development.

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A recent article on mitigating the wider health effects of the Covid-19 pandemic response identified **groups which may be particularly vulnerable** to the effects of both the pandemic and the social distancing measures:

Examples of groups at particular risk from responses to Covid-19:

- **Older people**—highest direct risk of severe covid-19, more likely to live alone, less likely to use online communications, at risk of social isolation.
- **Young people**—affected by disrupted education at critical time; in longer term most at risk of poor employment and associated health outcomes in economic downturn.
- **Women**—more likely to be carers, likely to lose income if need to provide childcare during school closures, potential for increase in family violence for some.
- **People with mental health problems**—may be at greater risk from social isolation.
- **People who use substances or in recovery**—risk of relapse or withdrawal.
- **People with a disability**—affected by disrupted support services.
- **Homeless people**—may be unable to self-isolate or affected by disrupted support services.
- **People in criminal justice system**—difficulty of isolation in prison setting, loss of contact with family.
- **Workers on precarious contracts or self-employed**—high risk of adverse effects from loss of work and no income.
- **People on low income**—effects will be particularly severe as they already have poorer health and are more likely to be in insecure work without financial reserves.

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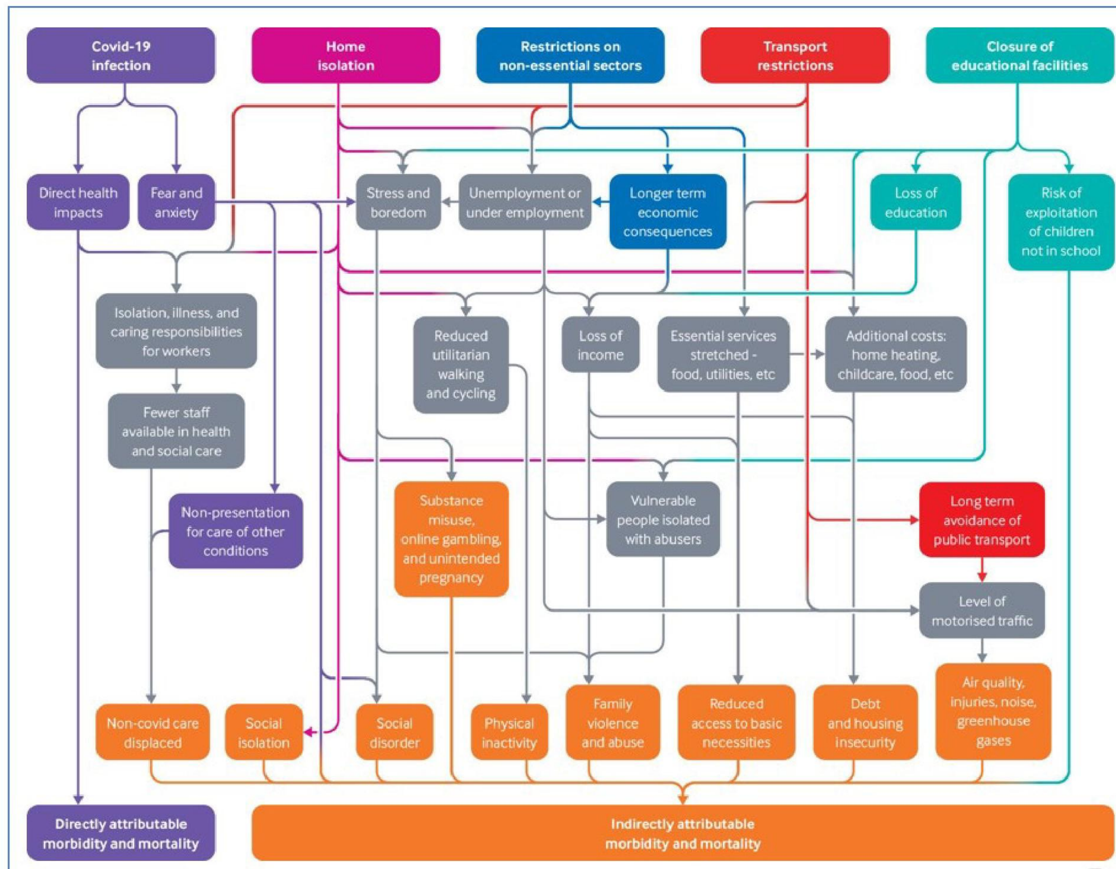
The authors also summarised the mechanisms through which the pandemic response is likely to affect health. See Fig 4.

Figure 4 – how the pandemic and the government's response is likely to affect health



Evidence on **behaviour changes** since lockdown is starting to emerge. A UK survey commissioned by Kings College London found that the threat from the virus and restrictions on behaviour are having an impact on people's behaviour, for example:

- 35% of people surveyed have **eaten more food or less healthy food** than normal.
- 19% have drunk **more alcohol** than normal.
- 19% have **argued more** with their family or housemates than normal.

However, people are supporting each other more:

- 60% have **offered** help to others
- 47% have **received** help from others.

WHERE DO WE WANT TO BE POST-COVID-19?

On 26th March 2020, a discussion panel was hosted by PlanB. The panel discussed points on making 'human health and wellbeing central to economic policy' in a post-Covid-19 world.

One of the panel members, professor of Epidemiology and Public Health at University College London and chair of the World Health Organisation's Commission on Social Determinants of Health, **Sir Michael Marmot**, commented:

"What the Covid crisis exposes is that we can do things differently. We must not go back to the status quo, we cannot do that."

"So what I would like to see, and we are seeing it at some regional levels within the UK, as well as some other countries, is putting the likely impact on health equity at the heart of all policymaking. That would lead to better environmental policy, it would lead to better social policy, it would lead to better healthcare policy and better political policies.

"I'd like to see a wellbeing economy emerge from this crisis."