CVDR/S6/22/8/1

COVID-19 Recovery Committee

8th Meeting, 2022 (Session 6), Thursday 10 March 2022

Inquiry into excess deaths in Scotland since the start of the pandemic

Introduction

1. At its meeting on 18 November 2021, the Committee agreed to undertake a short inquiry into excess deaths in Scotland since the start of the pandemic. The purpose of the inquiry is to examine the extent to which excess deaths are caused by the COVID-19 caseload or the indirect health impacts of the pandemic.

2. The purpose of this evidence session is to help the Committee examine the pressures facing the NHS and some of the health impacts being experienced by individuals. The Committee wish to look at the level of demand facing services and trends in excess deaths which do not seem to be entirely explained by COVID-19 cases.

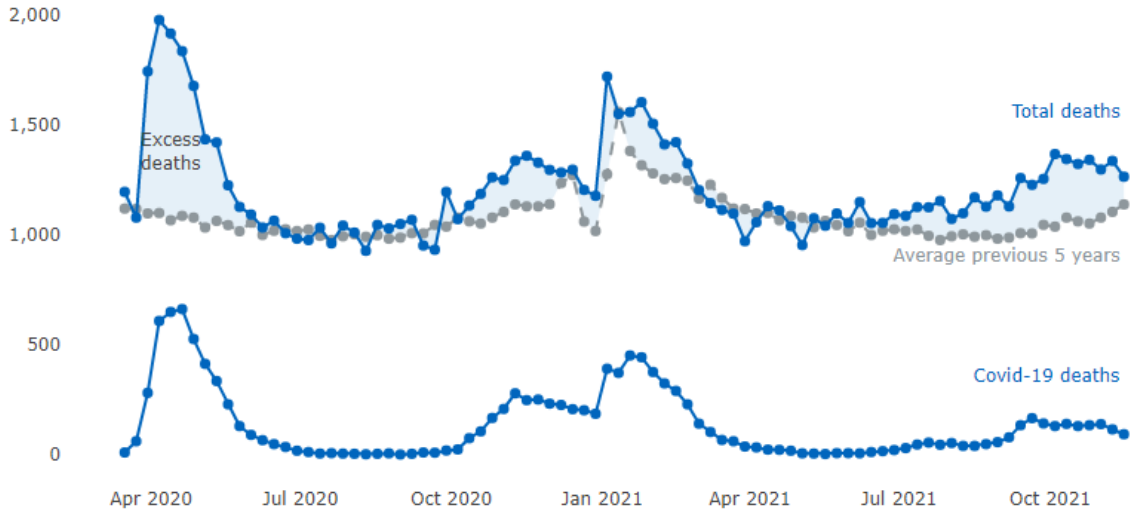
3. At this meeting, the Committee will take evidence from the following witnesses—

- Rob Gowans Policy and Public Affairs Manager, Health and Social Care Alliance Scotland (the ALLIANCE)
- Jane-Claire Judson, Chief Executive, Chest Heart & Stroke Scotland
- Peter Hastie, Policy Manager, Macmillan Cancer Support
- Dr Lynda Fenton, Consultant in Public Health Medicine, Public Health Scotland
- Dr Francisco Perez-Reche, University of Aberdeen

Background

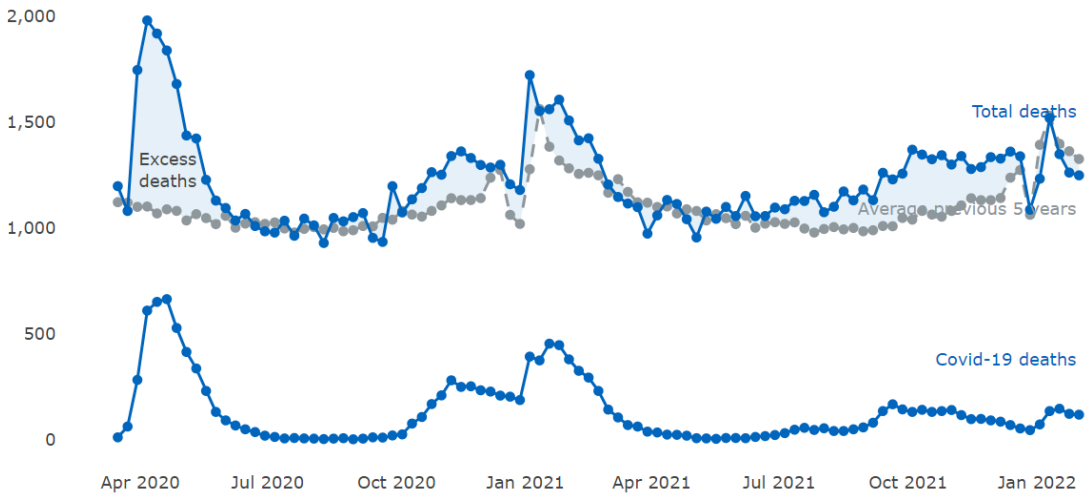
4. When the Committee launched its inquiry, data from the Scottish Government showed that deaths in Scotland were 11% above the average for that time of year and had been above the average for the last 26 weeks.

Fig 1: Excess deaths in Scotland since the start of the pandemic



Source: [Scottish Government]

5. The latest data published on 14 February 2022 shows that deaths in Scotland are currently 6% below average.



6. What is unclear, is the extent to which excess deaths are being caused by the COVID-19 caseload, or the indirect health effects of the pandemic.

Evidence

7. The Committee issued a call for views which ran from 9 December 2021 to 28 January 2022. The Committee received 101 written submissions including submissions from the following organisations and academics—

- Age Scotland and About Dementia (joint submission)

- Alcohol Focus Scotland
- BMA Scotland
- Dr Christopher John Boitz MBChB BSc (hons) GP
- Chest Heart & Stroke Scotland
- Inform Scotland
- Professor Claudia Estcourt, Professor of Sexual Health and HIV at Glasgow Caledonian University and Honorary Consultant in NHS Greater Glasgow and Clyde
- Professor Phyo Kyaw Myint, Chair in Old Age Medicine (Clinical), University of Aberdeen
- The Health and Social Care Alliance Scotland (the ALLIANCE)
- Hospice UK
- Macmillan Cancer Support
- Marie Curie
- Dr Francisco Perez-Reche, Senior Lecturer, University of Aberdeen
- Public Health Scotland
- Royal College of Emergency Medicine
- Royal College of General Practitioners Scotland
- Royal College of Physicians of Edinburgh
- Scottish Centre for Administrative Data Research (SCADR)
- Scottish Intensive Care Society
- UK Medical Freedom Alliance
- Professor Sarah Wild, Professor of Epidemiology, University of Edinburgh

8. All the submissions can be read at the following link—

Published responses for Excess deaths in Scotland since the start of the pandemic - Scottish Parliament - Citizen Space

9. The Committee took evidence from stakeholders and practitioners at its meeting on 24 February. The papers and transcript from that meeting can be read at the following link—

COVID-19 Recovery Committee 6th Meeting, 2022 | Scottish Parliament Website

10. The Committee has received written submissions from the following organisations to inform this evidence session, which are provided in **Annexe A**—

- Health and Social Care Alliance Scotland (the ALLIANCE)
- Chest Heart & Stroke Scotland
- Macmillan Cancer Support
- Public Health Scotland
- Dr Francisco Perez-Reche, University of Aberdeen

11. As part of the inquiry, the Committee's advisers suggested sourcing information on excess deaths including key data and trends. This information has been provided by the Scottish Government and is attached at **Annexe B.**

Next steps

12. The Committee will take further evidence on this inquiry at its meeting on 17 March 2022.

Committee Clerks
March 2022

ANNEXE A

The Health and Social Care Alliance Scotland (the ALLIANCE)'s written submission

The Health and Social Care Alliance Scotland (the ALLIANCE) is the national third sector intermediary for a range of health and social care organisations. We have a growing membership of over 3,000 national and local third sector organisations, associates in the statutory and private sectors, disabled people, people living with long term conditions and unpaid carers. Many NHS Boards, Health and Social Care Partnerships, Medical Practices, Third Sector Interfaces, Libraries and Access Panels are also members.

Our vision is for a Scotland where people of all ages who are disabled or living with long term conditions, and unpaid carers, have a strong voice and enjoy their right to live well, as equal and active citizens, free from discrimination, with support and services that put them at the centre.

The ALLIANCE has three core aims; we seek to:

- Ensure people are at the centre, that their voices, expertise and rights drive policy and sit at the heart of design, delivery and improvement of support and services.
- Support transformational change, towards approaches that work with individual and community assets, helping people to stay well, supporting human rights, self management, co-production and independent living.
- Champion and support the third sector as a vital strategic and delivery partner and foster better cross-sector understanding and partnership.

The Health and Social Care Alliance Scotland (the ALLIANCE) welcomes the opportunity to respond to the COVID-19 Recovery Committee's inquiry into excess deaths in Scotland since the start of the pandemic. The ALLIANCE is a national intermediary with over 3,000 members including third sector health and social care organisations, disabled people, people living with long term conditions, and unpaid carers.

The direct and indirect impacts of COVID-19 – and responses taken to it – have been felt significantly by disabled people, people living with long term conditions and unpaid carers. It is essential that we fully address the inequalities that have been made worse by COVID-19, particularly for marginalised groups.

Throughout the pandemic, the ALLIANCE has engaged with members and partners on the impacts of COVID-19. Key pieces of work include our recently published response to the NHS Recovery Plan, our People at the Centre report on remobilising health and social care services, research on access to GP services across Scotland during the pandemic, and our ongoing COVID-19 policy engagement work.

Relevant links:

https://www.alliance-scotland.org.uk/wp-content/uploads/2021/12/Putting-People-at-the-Centre-of-NHS-Scotland-Recovery.pdf

https://www.alliance-scotland.org.uk/people-and-networks/wp-content/uploads/2021/02/Health-Wellbeing-and-the-COVID-19-Pandemic-Final-Report.pdf

Has the public health emergency shifted from COVID-19 deaths to deaths from non-COVID-19 conditions?

The COVID-19 pandemic is an ongoing crisis. Since March 2020, the direct and indirect impacts of COVID-19 have been felt across society, including in the health and social care sectors. Progress has been made with the Scottish Government's vaccination programme, and the number of COVID-19 related deaths has reduced substantially from the peak in April 2020. However, we continue to face significant direct pressures through infection with the virus, most recently through the new Omicron variant which is causing case numbers to rise exponentially. At the same time, people are facing pressures from the indirect impacts of COVID-19, and excess deaths are 15% above average levels for this time of year.

ALLIANCE members and partners have continually emphasised that the COVID-19 pandemic is not over. It is important to recognise that people are continuing to be directly and indirectly impacted by COVID-19, and new issues are emerging. As the Scottish Government sets plans for recovery and renewal, it is imperative that the ongoing impacts

of the virus are addressed and considered, alongside the indirect and non-COVID related health impacts.

Relevant links:
https://www.gov.scot/publications/coronavirus-covid-19-state-epidemic-03-december-2021/documents/

https://www.gov.scot/publications/omicron-scotland-evidence-paper/

https://data.gov.scot/coronavirus-covid-19/detail.html

https://www.alliance-scotland.org.uk/blog/news/putting-people-at-the-centre-of-an-independent-inquiry-into-covid-19/

Is there evidence that patients are now presenting in a more acute condition?

Changes to health and social care, and social distancing measures introduced to control the virus, have changed the way in which people interact with healthcare services. The ALLIANCE has heard of the barriers that people have faced in accessing healthcare services and support during COVID-19. The implications of these barriers means that health outcomes may have worsened, and many people may now be presenting in a more acute condition to healthcare services.

During our People at the Centre work, participants highlighted a lack of access to healthcare services. Steps taken to respond to COVID-19 has led to care being disrupted and delayed, having a significant impact on people with wider healthcare needs. Similarly, preventative, and non-urgent care such as screening services have been delayed. While a small number of participants spoke about attending breast screening services and smear tests, others found that these services were unavailable. One participant summarised the situation as follows:

“They felt like they are inaccessible unless you have COVID. I received messages from GPs advising not to visit the surgery at all, but never received a message saying it is now safe to do so.”

This was echoed in a recent ALLIANCE survey which gathered over 200 responses on people’s experiences of accessing General Practice during the pandemic, with findings due to be published in early 2022. General

Practitioners (GPs) are often people's first point of contact in the healthcare system and play an essential role in supporting people to manage longer term conditions. The initial survey findings highlight that 35% of people felt that their expectations were not met when calling upon their GP surgery. Additionally, some respondents felt uncomfortable discussing personal health issues with secretarial and reception staff who are often triaging cases to help GPs in their work and were viewed as "gatekeepers" to accessing support.

People have also expressed concern about the effectiveness of virtual consultations where face to face access was reduced. While online platforms such as Near Me have been positive for many, they have not been suitable for everyone, and some participants described virtual and teleconsultations as an "inadequate replacement" to traditional face to face services:

"I am not confident that health professionals are assessing me properly if they are only speaking to me on the phone."

As highlighted in our response to the NHS Recovery Plan, these challenges have been heightened for marginalised groups, including people from ethnic communities, people with learning/intellectual disabilities, women, children and young people, and people living with sensory loss. One participant explained the challenges faced by people from ethnic minorities:

"Inaccessibility increased for everyone, but it increased two or three-fold for ethnic minorities, because of other barriers, because of lack of information, because of lack of support. It kept increasing. Services moved online and the majority of people at grassroots level, South Asians we work with, especially women, older people and families on low income, they didn't know how to go online."

Members have also shared how shielding measures have had a significant impact on people. Concerns have been raised about the consequences of shielding, including health issues going unnoticed or undetected, social isolation, and inadequate access to food. Similarly, some people have opted to choose self-imposed isolation to stay safe.

The subsequent impact of these challenges has had – and continues to

have – significant consequences for individual health and wellbeing. Many people feel like needs have not been met and have experienced considerable deterioration of both physical and mental health.

Relevant links:

https://www.alliance-scotland.org.uk/people-and-networks/wp-content/uploads/2021/02/Health-Wellbeing-and-the-COVID-19-Pandemic-Final-Report.pdf

https://www.scotlanddeanery.nhs.scot/media/399098/appendix-a-alliance-report.pdf

https://www.alliance-scotland.org.uk/wp-content/uploads/2021/12/Putting-People-at-the-Centre-of-NHS-Scotland-Recovery.pdf

https://www.alliance-scotland.org.uk/blog/news/putting-people-at-the-centre-of-an-independent-inquiry-into-covid-19/

What accounts for the deaths from non-COVID-19 conditions?

Research by Public Health Scotland, which analysed excess deaths between 16 March to 21 June 2020, highlights that while the majority (82%) of excess deaths were linked directly to COVID-19, the remainder could be attributed to underlying causes, including; dementia and Alzheimer's, external and ill-defined causes, circulatory causes, other causes, cancer, and diabetes. "External and ill-defined" causes included some drug related deaths, alcohol related deaths, and suicides.

We know that health inequalities impact different population groups disproportionately. Crucially, COVID-19 has highlighted and exacerbated pre-existing inequalities. Accordingly, the direct and indirect effects of COVID-19 mean that some population groups have been affected in different ways, including disabled people, people with long term conditions, older people, Black and minority ethnic people, and socio-economically disadvantaged people.

Both non-COVID-19 excess deaths and deaths involving COVID-19 are twice as high in the most deprived areas compared to the least deprived areas. Inequality is widened when the data is disaggregated by specific population groups, including age, sex, disability, long term conditions, and

ethnicity. It is crucial that the social determinants of health – including the intersectionality of inequality – are fully addressed. As we move into the next phase of the pandemic, it is important that measures are introduced or strengthened that can address this inequality and challenge the social determinants of health.

Relevant links:

https://publichealthscotland.scot/media/7186/non-covid-19_excess_deaths_by_cause-report.pdf

https://www.gov.scot/binaries/content/documents/govscot/publications/research-and-analysis/2020/09/the-impacts-of-covid-19-on-equality-in-scotland/documents/

https://www.nrscotland.gov.uk/files//statistics/covid19/covid-deaths-21-report-week-49.pdf

https://publichealthscotland.scot/media/7186/non-covid-19_excess_deaths_by_cause-report.pdf

https://www.nrscotland.gov.uk/files//statistics/covid19/covid-deaths-21-report-week-49.pdf

Is there enough of a strategic focus on the indirect health impacts of the pandemic?

No. As highlighted in our answers to Questions 2 and 3, it is imperative that the indirect health impacts of the COVID-19 pandemic are adequately addressed.

Our briefing, Putting people at the centre of an independent inquiry into COVID-19, sets out some of the key indirect health impacts that our members have experienced during the COVID-19 pandemic. These are detailed below:

- Confusing, inaccessible, limited, and interrupted communication was experienced at all levels: between services, for people who access services, and at the national public health messaging level. This has created issues for people accessing healthcare services.

- Lockdown and restrictions have imposed new barriers for people with sensory impairments including loss of lip reading due to face masks,

inability to access appointments accompanied by a support worker, and navigating public areas under social distancing guidelines.

- Members reported that some population groups were receiving unsolicited requests by some General Practices to sign Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) forms. It is important that steps are taken to prevent a similar situation happening again in future.

- People with long term conditions faced difficulties accessing healthcare services. The decision making behind this must be addressed and the long term impact properly reviewed.

- The need for palliative and end of life care increased, and there was a substantial increase in the number of people dying at home. Most of these deaths at home were attributed to causes such as cancer, dementia and heart failure. There is also concern that a lot of the pressure of end of life care and death at home fell on family members and unpaid carers, who may not have had adequate or appropriate support.

Relevant links:

https://www.alliance-scotland.org.uk/blog/news/putting-people-at-the-centre-of-an-independent-inquiry-into-covid-19/

https://www.alliance-scotland.org.uk/blog/resources/health-wellbeing-and-the-covid-19-pandemic-final-report/

https://www.ageuk.org.uk/scotland/our-impact/policy-and-research/political-briefings/coronavirus-lockdown-anniversary/older-people-need-answers-on-inappropriate-use-of-dnacpr/

https://www.autism.org.uk/what-we-do/news/coronavirus-access-to-health-services

What are the realistic options open to the government in addressing the indirect health impact of the virus in winter 2021/22?

To address the indirect health impact of the COVID-19 virus, the ALLIANCE makes recommendations in the following key areas:

1. Equalities and human rights

To address the health inequalities faced by certain population groups, it is imperative that the Scottish Government adopts an equalities, human rights, intersectional and person centred focus. Steps should be taken to ensure that measures taken to control the virus, as well as responses in the wider health and social care sector are explicitly aligned with human rights.

The rights of marginalised people who have been disproportionately affected by COVID-19 must be at the centre of government decision making, and the voice of lived experience must be involved meaningfully, and in a way that addresses intersectional experiences.

There are practical tools that can be used to embed an equalities and human rights based approach:

- The five-point PANEL Principles (Participation, Accountability, Non-Discrimination and Equality, Empowerment and Legality) can be used to ensure that people's human rights are at the heart of policy and practice.

- Consideration could also be given to enacting the AAAQ Framework. The framework is underpinned by key elements of the human right to the highest attainable standard of physical and mental health. This means that the provision of goods, services and facilitates that are necessary for the realisation of people's rights to health could be measured against indicators of whether they are "available", "accessible", "acceptable", and of "good quality".

- The ALLIANCE recommends that robust and timely Equality and Human Rights Impact Assessments (EQHRIAs) are carried out for all proposed actions to address the indirect health impacts of COVID-19. EQHRIAs were developed by the Scottish Human Rights Commission and Equality and Human Rights Commission to combine Equality Impact Assessments and Human Rights Impact Assessments.

This is a practical tool that should be used both at the earliest stages to inform policy, and after the policy has been implemented to assess its impact. This will help to improve outcomes, reduce inequality, demonstrate transparency, accessibility, accountability, and ensure compliance with human rights and equality legislation. Assessments

should be evidence led, carried out at the earliest opportunity, and based on meaningful involvement of communities, including marginalised population groups.

2. Holistic care and support

A holistic care and support planning approach should be adopted in primary care to ensure ongoing support for people accessing healthcare services and support. Scotland's House of Care model is a useful framework to ensure that people living with long term conditions are meaningfully involved in decisions about their care. The House of Care model is an important tool that allows healthcare to embed collaborative care and support planning and fulfil its responsibilities to support the self management of people living with one or more long term conditions in General Practice. This approach supports and enables people to articulate their own needs and to decide on their own priorities, through a process of joint decision making, goal setting and action planning. It consists of:

- Right hand wall: Health and care professional team committed to shared decision making, partnership working and a "What Matters to You?" conversation
- Left hand wall: Engaged, informed, empowered individuals and carers ready to engage in a "What Matters to You?" conversation
- Foundation: "More than Medicine" informal and formal sources of support and care sustained by the responsive allocation of resources
- Roof: organisational processes, policies, systems and arrangements

Each of these are built around a "care and support planning conversation", which is at the heart of the house. This conversation enables a person with one or more long term conditions to engage with healthcare professionals in a person centred manner, and to utilise local resources. Crucially, the house needs all components to stand strong.

3. Third sector involvement

To mitigate the impact of COVID-19, urgent investment in health and social is needed. The third sector has played a key role in responding to COVID-19, and in supporting people to access care and support. The ALLIANCE's Community in Action project shared almost 70 reports on the third sector's response to COVID-19, highlighting the speed at which organisations

adapted to support people in March 2020 and the months that followed. Yet chronic underfunding and undervaluing of the sector can hinder the full enjoyment of quality, accessible services and support. This can have a detrimental impact on disabled people, people living with long term conditions, unpaid carers, and the third sector workforce.

The third sector must be recognised as an equal partner in the delivery of healthcare services and support. The ALLIANCE recommends that the Scottish Government commits to working with the third sector as meaningful and valued partners in the design and delivery of care and support. This should be underpinned by long term, adequate and sustainable funding to reflect the vital work of the sector. This will allow the sector to plan for the longer term, ensure that essential services continue to reach people and adapt to their requirements, keep staff in secure employment with good pay, terms and conditions, and prevent the loss of valuable knowledge and expertise.

4. Community Links Practitioners

Health and wellbeing should be prioritised by increasing investment in community-based services, and guaranteeing people access to timely, good quality support. Asset-based approaches are key to reducing inequalities and creating personalised services built around the rights and needs of communities.

The ALLIANCE's Links Worker Programme is an example of a model that improves health outcomes, and supports people to access care and support services that enable them to live well. The ALLIANCE employs 55 Community Links Practitioners (CLPs), who are based within 63 GP surgeries across Glasgow and West Dunbartonshire. The Links Worker Programme aims to mitigate the impact of the social determinants of health for people that live in areas of high socio-economic deprivation (the most deprived 15% of areas, as measured by the Scottish Index of Multiple Deprivation (SIMD)) – a population group disproportionately affected by COVID-19. To prevent further entrenching inequality, the ALLIANCE recommends expansion of CLPs to all GP practices, with prioritisation to appointing CLPs in practices within Scotland's 100 most deprived areas.

5. Data gathering and analysis

There are a range of data gaps around the indirect impacts of COVID-19. Greater attention should be given to evidence outlining the indirect impacts of COVID-19. It is important that robust research on the impact of COVID-19 is undertaken, underpinned by disaggregated data collection and intersectional analysis. This research should be used to inform future support and services to ensure practical, inclusive measures are developed to support people, including disabled people, people living with long term conditions and unpaid carers.

Relevant links:

https://www.scottishhumanrights.com/media/1409/shrc_hrba_leaflet.pdf.

http://www.healthscotland.scot/health-inequalities/the-right-to-health/overview-of-the-right-to-health.

http://www.healthscotland.scot/health-inequalities/the-right-to-health/overview-of-the-right-to-health

https://www.ohchr.org/documents/publications/factsheet31.pdf

https://eghria.scottishhumanrights.com/eghriahome.html.

https://www.alliance-scotland.org.uk/health-and-social-care-integration/house-of-care/#expanded

https://www.alliance-scotland.org.uk/blog/case_studies/#area_of_work=community-in-action

https://www.alliance-scotland.org.uk/in-the-community/national-link-programme/

https://www.gov.scot/binaries/content/documents/govscot/publications/research-and-analysis/2020/09/the-impacts-of-covid-19-on-equality-in-scotland/documents/

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01900-0/fulltext#articleInformation

https://www.gla.ac.uk/news/archiveofnews/2020/december/headline_767449_en.html.

Chest Heart & Stroke Scotland's written submission

Chest Heart & Stroke Scotland is a Scottish health charity providing support to people affected by chest and heart disease, long covid, or who have had a stroke. We provide our Hospital to Home services across the country, bridging the gap between formal healthcare and someone's return to their normal life, helping them meet their personal goals and come to terms with their health condition.

Our Hospital to Home services include a free Advice Line, stroke nurses, community support teams, a network of 140 peer support groups, physical activity programmes including walking groups, and a Health Defence prevention programme in Glasgow. These are not available uniformly however, and we are working to build partnerships with more Health Boards across all our condition areas.

In addition we provide training and education for health and social care professionals, and extensive online advice and resources for people living with our conditions.

Has the public health emergency shifted from COVID-19 deaths to deaths from non-COVID-19 conditions?

Chest Heart & Stroke Scotland has been concerned for some time about the long-term implications of the pandemic on people's health, and the associated future pressures on the NHS. The pandemic has clearly had a detrimental impact due to a complex combination of pressures on the health system, reluctance to visit healthcare settings, and both physical and mental harm caused by the effects of necessary restrictions and other changes to people's circumstances.

Emergency and planned admissions to hospital have fluctuated significantly during the pandemic, and although they have now risen, they remain below normal levels. Emergency admissions have been below average since March 2020 and in the last month for which data is available they decreased to 90% of pre-covid levels, with A&E attendance at 88%. During 2021 up to week 50 there had been 1,389 more than average deaths at home from heart disease and stroke and 679 fewer in hospital [data source https://www.nrscotland.gov.uk/files//statistics/covid19/covid-deaths-21-report-week-50.pdf]. There will have been instances where people have experienced symptoms of heart attack or stroke but have not sought the emergency medical treatment they required, and have died as a result.

In addition, a significant proportion of people throughout the pandemic have been

reluctant to visit their GP. Latest data shows 25% of people saying they would avoid contacting their GP at the moment. [Data source https://data.gov.scot/coronavirus-covid-19/detail.html] As a result there will undoubtedly have been fewer diagnosis made and treatment provided such as the medication required to tackle many of the key causes of heart attack and stroke such as high blood pressure or atrial fibrillation.

Research published in March 2021 examined the impact of the pandemic in England on the management of cardiovascular disease, including prevention, referrals, diagnosis, treatment, and rehabilitation. It estimated that as a result, 12,000 future heart attacks or strokes that could have been preventable might occur. It is reasonable to assume that there will be a similar negative impact in Scotland. [https://www.carnallfarrar.com/articles/cardiovascular-disease-and-covid-19/]

National Registers of Scotland's data shows that up to week 50 in 2021, there were 483 excess deaths in Scotland due to heart disease and stroke. Worryingly the majority of those have been in the second half of the year. There were just 17 weeks in which there were fewer than average deaths attributable to heart disease and stroke, with 16 of those before the end of June. This suggests that the impact of the pandemic on cardiovascular health is increasing, and we can expect it to continue throughout 2022 and beyond. [data source https://www.nrscotland.gov.uk/files//statistics/covid19/covid-deaths-21-report-week-50.pdf]

Poor diet, lack of exercise, isolation and loneliness, may also be contributory factors.

- 39% of people have reported eating more unhealthy, discretionary food and drink during the pandemic, with over 47% reporting that their weight increased during lockdown periods. [https://www.bhf.org.uk/what-we-do/in-your-area/scotland/ncd-prevention-report]

47% of people over 18 in Scotland felt that their participation in sport and exercise activity was a lot or a little less over the last 12 months than the equivalent period before covid-19. [https://oss.scot/scots-have-sat-through-lockdown-and-lost-fitness-study-shows/]

- Lockdown has been associated with higher than usual levels of reported loneliness. At the beginning of September, 49% of people reported feeling lonely. The impact of loneliness and isolation on both physical and mental health are well documented. [https://data.gov.scot/coronavirus-covid-19/detail.html#loneliness]

Is there evidence that patients are now presenting in a more acute condition?

Research into emergency department and acute admissions during the pandemic has shown that compared to the pre-pandemic period, non-covid admissions had more hypertension, cerebrovascular disease (ie stroke), liver disease and obesity
[data source https://bmcemergmed.biomedcentral.com/articles/10.1186/s12873-021-00529-w].

Chest Heart & Stroke Scotland has heard anecdotally from health professionals that more complex cases of heart disease and stroke are presenting at hospital, leading to longer periods of admission. We are not able to provide data to support this, though it is not surprising given that many people will have not received necessary diagnosis or treatment for symptom management since the start of the pandemic due to the challenges in receiving medical care and treatment. We would like to see more investigation of this issue, if it is not in hand already, so we can better understand the impacts and plan for how this will shape future care.

People experiencing for example a transient ischaemic attack (TIA, or 'mini-stroke') are at significantly higher risk of going on to suffer a severe stroke; ordinarily that risk is minimised through appropriate treatment and support. The known reductions in GP appointments and emergency presentations at hospital suggest that it is likely that some people may not have sought or received the medical attention they need when experiencing symptoms of a TIA, increasing the likelihood of stroke and possibly death.

What accounts for the deaths from non-COVID-19 conditions?

Please see our response above to Question 1.

Is there enough of a strategic focus on the indirect health impacts of the pandemic?

As the Scottish Government looks to the future of healthcare post-covid and with the NHS at crisis point Chest Heart & Stroke Scotland believes there is an opportunity to take a system-wide approach to tackling health in Scotland. The relative poor health of our population pre-covid and the inequalities that exist are well known and have been exacerbated during the pandemic, making a shift in strategic focus essential. The third

sector has continued to demonstrate the vital role we play in supporting people's health and alleviating the burden on the NHS.

However the Scottish Government's covid-recovery planning for health has thus far been restricted to the NHS, with some nominal references to the valued role of the third sector, and no reference at all to recovery services for chest, heart and stroke conditions. 'Health' continues to be seen strategically through the narrow lens of medical treatment and care mainly delivered in the acute setting and as the absence of illness. In contrast the World Health Organisation defines health as being a 'state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'.

The care pathways in place tend still towards a model of health intervention that is based on increasing complexity or impact of presentation of medical illness, rather than primary and secondary prevention. Examples of the importance of that preventative focus include people's recovery and management of health after 'mini-strokes' (as described in our response to Question 2 above) and in supporting people with COPD to live well at home and in their community which can reduce the number of emergency hospital admissions. Ground has been lost during the pandemic due to services being paused – and before the pandemic these services were poorly funded, such as pulmonary rehabilitation which is proven to be both clinically and cost-effective yet only a minority of people with COPD are referred to programmes [source https://www.chss.org.uk/wp-content/uploads/Report-Pulmponary-Rehab.pdf]. Supporting and enabling people to achieve wellbeing in this context cannot lie solely with the NHS but instead with a partnership of wider society, operating together as a health and wellbeing 'system'. Chest Heart & Stroke Scotland is for example actively working with clinicians within Health Boards to widen the scale of our Hospital to Home support services and help reduce the pressures on the NHS.

Hospital to Home enables people to self-manage their health condition, supporting their transition from hospital and helping them come to terms with a diagnosis. It incorporates nurse-led advice, motivational support and confidence building, help from trained volunteers within communities, regular kindness calls, and social community groups offering physical activity.

The pandemic has highlighted how important it is to not only alleviate the pressures on the NHS but also ensure that everyone has an equal chance of quality of life. We need to de-medicalise areas of care where appropriate, and build on successful partnerships between the NHS and third sector which see a fully integrated care pathway in place.

There are though ongoing systemic challenges such as with essential data sharing which would enable referrals outwith the NHS into our services, but which is often problematic and requires lengthy negotiation with each Health Board. This is not only time and resource-intensive, but can delay and limit the support which we can provide to people.

What are the realistic options open to the government in addressing the indirect health impact of the virus in winter 2021/22?

It would be useful to stop referring to this kind of impact as 'indirect'. To the person who has experienced a stroke or heart attack that could have been prevented, or the family that has lost a loved one where that was preventable, it is not indirect at all. And this hierarchical language is echoing the outdated medical model of supporting health.

As noted in our response to Question 4, the answers do not just lie with the NHS – however, the starting point for the pathway is often NHS held diagnostics and referrals. When people feel unwell they go to their GP – and then are referred to the relevant part of the NHS and/or other service. Significant work on the leadership and decision making within health boards and across the NHS, within primary and secondary care, needs to take place to ensure that the capacity and skills available through partnership working with the social care and third sector are fully accessed.

There are some practical steps which could be taken in the short term, including removing barriers to partnership working between the NHS and third sector partners such as addressing the data-sharing challenges highlighted above. For Chest Heart & Stroke Scotland this would enable us to more rapidly expand our support services to far more people, and to work with Health Boards more effectively. Additionally there is an ongoing need to provide consistent and long-term funding for third sector services which optimise people's health and wellbeing and reduce harm such as isolation and loneliness.

There is also an immediate need to highlight that the NHS continues to be 'open for business' and that symptoms of stroke and heart attack must always be treated as an emergency. This could include a FAST campaign funded and delivered via Health Boards about the symptoms of stroke; Chest Heart & Stroke Scotland could facilitate this and develop the necessary resources as we have done in past. The FAST message (Face, Arms, Speech, Time to call 999) is proven to be effective in raising public awareness of stroke symptoms. Similarly, public health messages about healthy eating and physical activity should be promoted, particularly in the New Year when people can often be more conscious about taking steps to improve their health.

This could be reinforced by other preventative measures and partnership work such as providing free blood pressure checks at pharmacies and a range of public settings. Community pharmacy has a positive role in supporting people to live well an manage their health as does the third sector and this should be seen as core to post Covid recovery and not ‘further down the list’ or as a lower priority.

Macmillan Cancer Support's written submission

Macmillan Cancer Support, registered charity in England and Wales (261017), Scotland (SC039907) and the Isle of Man (604). Also operating in Northern Ireland

Has the public health emergency shifted from COVID-19 deaths to deaths from non-COVID-19 conditions?

We don't believe that it has, indeed both are equally vital to keep on agenda – the Omicron surge has clearly put Covid back at the centre of attention. In the week this Consultation closes (Jan 2022), Public Health Scotland statistics show that NHS staff absent due to covid has risen to levels not seen since the start of the pandemic. This will clearly impact on cancer diagnosis, treatment and care. Macmillan cancer Support would like to see meaningful action to deal with the cancer backlog that has built up during covid.

Is there evidence that patients are now presenting in a more acute condition?

At the moment our Macmillan GP advisers and our wider staff are reporting anecdotally that cancer patients are presenting with symptoms later. However, we believe that the official data that emerges in 2022 and 2023 is likely to show this is statistically an official trend. What we have seen in the most recent Scottish Government publication on cancer staging data, published on 26/10/2021 – was that 2019/2020 was worse than previous years. Macmillan Cancer Support were concerned to see in these figures that the number of people treated at the earliest stage of cancer diagnosis – Stage 1 – has dropped to 24.1% of patients which is actually a fall from 25.6% in last year's figures.

The drop in cases is clearly what we expected given the suspension of screening programmes in 2020 plus the overall impact of the pandemic (a fall of 1582 patients being recorded). However, this is still worrying given that these figures only include 9 covid months out of the 24 months recorded, and only covers breast, colorectal & lung cancers.

Public Health Scotland also produced analysis last year that showed more than 4,800 fewer patients in Scotland had a pathologically confirmed cancer diagnosis by the end of 2020 than would have been expected. It is vital that more data sets like this are produced by Public Health Scotland so that we can assess the ongoing impact of the pandemic on services and patients.

(It is important to note the delays in diagnosis will impact on every part of the cancer pathway, from diagnosis through treatment to recovery and end of life treatment as likely to not just lead to excess deaths but more complex/invasive treatment, slower recovery, more ongoing needs etc.).

What accounts for the deaths from non-COVID-19 conditions?

At the moment, the National Records of Scotland show excess cancer deaths in both 2020 and 2021 – in comparison to the average over 2015-2019. We would like the Committee to investigate excess cancer deaths and their cause as statistical and anecdotal evidence emerges this year.

Is there enough of a strategic focus on the indirect health impacts of the pandemic?

The pandemic has highlighted that we clearly have huge workforce challenges in the NHS, even before Covid. Macmillan looks forward to the Scottish Government publishing it's national workforce strategy in the coming weeks. We want to work with the government and parliament to model the future cancer workforce, so that everyone receives personalised cancer care.

What are the realistic options open to the government in addressing the indirect health impact of the virus in winter 2021/22?

We would welcome continual drive from Government to urge people to come forward with cancer symptoms, perhaps using the Detect Cancer Early campaigns materials. .Macmillan would strongly oppose any return to suspensions of the screening services, indeed we believe that the NHS needs to put in place a plan to deal with the current backlog of screening for bowel cancer, which is running 6 months in arrears.

Public Health Scotland's written submission

Public Health Scotland (PHS) is Scotland's lead national agency for improving and protecting the health and wellbeing of all of Scotland's citizens. Our vision is for a Scotland where everybody thrives. Focusing on prevention and early intervention, we aim to increase healthy life expectancy and reduce premature mortality by responding to the wider determinants that affect people's health and wellbeing. To do this, we use data, intelligence and a place-based approach to lead and deliver improvement against Scotland's public health priorities.

We have played a central role in Scotland's response to COVID, collaborating with partners to:

- provide expert public health advice to national and local partners
- monitor and track the epidemiology of the pandemic, including the development of surveillance capability and the modelling of future projections and impacts
- provide daily data on case numbers and severe outcomes associated with COVID
- develop a locally delivered, nationally supported contact tracing service
- provide clinical advice and public health leadership for the vaccination programme including vaccine safety, vaccine confidence and informed consent, and information for public and professional audiences
- build the evidence base on key areas including the effectiveness of vaccinations, the impact of education restrictions on children and young people, and the impact of the pandemic and control measures on population health outcomes

Has the public health emergency shifted from COVID-19 deaths to deaths from non-COVID-19 conditions?

The public health emergency response is broad in scope to try to prevent infections and to minimise the effects of COVID-19 illness throughout society.[1]

Direct COVID-19 impacts

'Burden of disease' is an internationally recognised framework for assessing the comparative importance of diseases, injuries and risk factors in causing premature death, loss of health and disability in different populations. Disease burden is described in terms of disability-adjusted life years (DALYs) which represent the number of years of life lost (YLL) to premature mortality and ill health, compared to aspirational health. The Scottish Burden of Disease (SBoD) study is a national and local population health surveillance system which monitors how diseases impact

on the population. The SBoD examined the impact of COVID-19 on the population's health in 2020.

In 2020 it is estimated that there were 641,789 people infected with COVID-19, resulting in 6,845 deaths and around 100,000 YLL in Scotland.[2] In the first wave of the pandemic, each COVID-19 death caused an average loss of 14 and 12 years of life for men and women respectively, indicating that this was not simply hastening the deaths of the oldest age groups or people who would have otherwise died of another cause within a short period of time.[3]

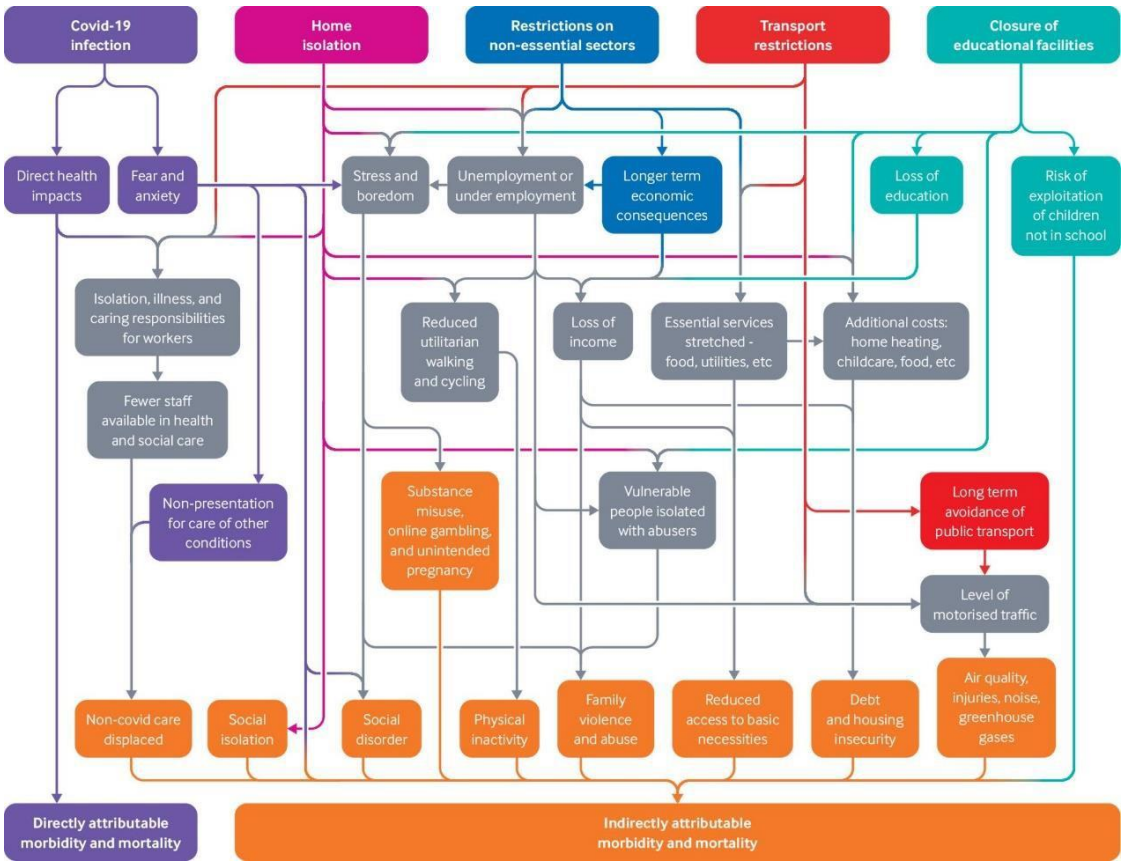
The morbidity, or ill-health, as a direct result from COVID-19 is also substantial, although it accounted for only 2% of the total DALYs due to COVID-19. This morbidity takes several forms; the ill-health managed in the community, any acute illness requiring hospitalisation or ventilation, or the long-term consequences (termed 'long-COVID') which is less well understood or quantified, but which may create a substantial long-term illness legacy for some people. The direct burden from COVID-19 in 2020 was substantial enough to be framed as the second leading specific cause of disease and injury behind ischaemic heart disease.

The direct impacts of COVID-19 also have substantial implications for health and social care services, creating high demand for intensive care beds within hospitals, the impact of care home closures and staff absence on the quality of care being provided, resources being allocated to managing patients with COVID-19, and resources to be allocated to preventing COVID-19 through vaccine development and administration, as well as the ongoing need for additional Personal Protective Equipment (PPE) to be used.

Indirect COVID-19 impacts

The indirect impacts of COVID-19, as a result of the control measures, are also very substantial (Figure 1).[4] The impact of these are monitored in Scotland as part of the '4 harms framework' at: https://data.gov.scot/coronavirus-covid-19/.

Figure 1 – Indirect impacts of the COVID-19 pandemic (from Douglas et al[4])



It is clear that the impact on the economy during the pandemic has been profound, and we know that the economy is an important determinant of health.[5] The furlough scheme, and the uplift in Universal Credit, have both been essential in protecting people's incomes during the pandemic. However, these protections have now been removed. Economic policies prior to the pandemic were already having profoundly negative impacts on mortality prior to the pandemic, such that mortality had barely improved since 2012. Specifically, these economic causes include austerity measures, high levels of poverty, unemployment/precarious employment, and increasing economic inequality.**Error! Bookmark not defined.** 12

Social isolation was a particular problem in the early phases of the pandemic, and

risks becoming a severe problem once again if further lockdown measures are deemed necessary. The disruption to the education of children, young people and adult learners also has public health implications over the short, medium and long-term. Balancing the harms to health and other outcomes through different strategicapproaches to managing the pandemic is difficult, particularly when there are so many uncertainties about the trajectory of infection spread and the scale of the indirect impacts.[6]

The impacts on mortality from these indirect causes is likely to occur over a wide range of timescales, from immediate to over decades.

The impacts on the health service and the care of non-COVID-19 conditions is discussed further below.

Public health emergencies beyond COVID-19

In addition to the direct and indirect impacts of COVID-19, there are a series of other public health emergencies currently impacting on Scotland, all of which have implications for mortality.**Error! Bookmark not defined.**

1. *Climate change and biodiversity loss*
   Ecological damage through Greenhouse Gas (GHG) emissions and destruction of nature through deforestation, fishing and pollution, all present existential threats to human mortality and health. The failure of global government action to keep GHG emissions to a level that would have made it less likely to reach ecological tipping points means that we now need to prepare for stark and rapid global warming. This will impact societies and population health through a wide range of mechanisms, including economic disruption, food supply disruption, extreme weather events, climate-induced migration, etc. Acting urgently and radically to mitigate climate change, and to adapt to those consequences that are already in train is essential to protect population health.[7]

2. *Inequalities, economic policy and stalled life expectancy trends*
   Life expectancy has not improved in Scotland since around 2012.[8] This has meant that life expectancy in Scotland is now 1.3 years lower than expected for women, and 1.4 years lower than expected for men.[9] It has impacted most on our most deprived communities such that mortality rates in the 40% most deprived areas in Scotland, in the decade leading up the pandemic, have been *increasing*. Over the course of a decade, inequalities in mortality are causing six times more Years of Life Lost (YLL) than even the initial worst case scenarios for COVID-19.[10] The causes of these trends are primarily economic, arising because of the austerity policies that have been pursued since 2010

and the increasing inequalities in income, wealth and power across society.[11]

This has exacerbated the long-standing higher mortality in Scotland compared to other countries which is known to be due to political and economic decision-making.[12] [13]

3. *Drug-related deaths*
   A specific aspect of the rising inequalities in mortality in Scotland, and one that impacts particularly in more deprived areas and in the working-age population, is the rapidly increasing number of drug-related deaths.[14] This is a substantial contributor to the overall stalling in life expectancy trends[15] and represents an entirely preventable cause of death. The effective policy responses to prevent drug-related deaths have been articulated in detail elsewhere.[16]

4. *Mental health and wellbeing*
   Accurately measuring mental health trends in the population can be difficult as it relies upon survey measures (with the attendant issues of non-response and bias in responses) or proxy measures such as prescribing which are subject to changes in treatment acceptability and clinical practice. However, there is evidence that mental health problems have increased in prevalence over the last decade.[17] Mental wellbeing, or positive mental health, has displayed stable trends on average from the available data, but inequalities in this remain high.[18] The implications for mortality are important but complex, with direct (i.e. suicide) and indirect mechanisms linking to mental health.

Is there evidence that patients are now presenting in a more acute condition?

We are interpreting this question to be about non-COVID-19 conditions.

Early in the pandemic many measures of healthcare use showed a decline. Reasons for this may include:

- people being less willing to present to healthcare services because they are ill, fearful of catching COVID-19, or not wishing to be a burden on services (around 20% of survey respondents in Scotland say that they would agree with the statement that they "…would avoid contacting GP for immediate non-COVID-19 health concerns[19]);
- services being less accessible to people (e.g. postponement of operations to make space in intensive care for COVID-19 patients; postponement of investigations and screening services; staff being reallocated to direct COVID-19 care; changes to points of access in primary care);

- a decline in the need for healthcare (e.g. with the night-time economy closed atthe start of the pandemic there were likely to be fewer alcohol-associated assaults requiring treatment; fewer cars on the road initially led to a decrease in road-traffic injuries).

For many conditions, the data on clinical severity or disease staging at presentation is not available. Cancer is one of the few conditions where staging is routinely carried out and recorded. It is therefore presented as a proxy that may be useful in understanding the impact of the reasons listed above on disease stage at presentation.

For cancer diagnosis and treatment, a series of changes resulted from both the direct and indirect effects of the pandemic. Cancer screening was paused and primary care face-to-face appointments reduced, leading to a large drop in cancer diagnoses. Just under 5,000 fewer individuals had a pathologically-confirmed cancer diagnosis in 2020 compared with 2019, a fall of around15%. Hospital care for cancer was reorganised to minimise:

- the risk of patients contracting COVID-19 while being treated
- use of treatments that might increase susceptibility to COVID-19
- use of Intensive Care Units (ICUs), hospital and hospice beds.

These adaptations changed progressively as more was understood about the risks of COVID-19 and vaccination became available.

Information on stage of cancers at the time of writing was limited to the three Detect Cancer Early sites – lung, breast and colorectal. The absolute numbers of all stages of cancer fell in 2020, but it fell more for early-stage disease. This means that proportionally, later stage disease increased but it does not necessarily mean that there was a genuine shift in stage among patients with cancer; only that more information was missing for those with early stage disease.

This is easiest to explain for breast and colorectal cancers due to the pausing of screening. While the evidence is therefore not conclusive at the time of writing, it might still be assumed that if patients with earlier stage disease have not been diagnosed, the progressive nature of cancer means that when they are diagnosed, it will be at a later stage when outcomes will be poorer. A fuller account of cancer stage in 2020 compared to earlier years will be available when cancer incidence statistics are published in early 2022.

What accounts for the deaths from non-COVID-19 conditions?

Since the start of the pandemic the number of excess crude deaths has been used as a measure of the direct and indirect impacts of the pandemic on mortality. This

has the advantage of allowing comparison with the relevant time period in the year, thereby accounting for the seasonal patterning of deaths seen prior to the pandemic. It also accounts for substitution effects that might occur between different specific causes of death (for example, if a death from COVID-19 led to one less death from dementia). The approach does not account for trends in mortality (as noted above, there has been almost no improvement in mortality trends in the decade prior to the pandemic and so this is less likely to cause measurement issues), nor the ageing of the population (which is a small source of bias over such a short timescale).

The excess crude weekly deaths over the course of the pandemic are shown in Figure 2 as a percentage excess compared to the average expected number of crude deaths between 2015 and 2019. This shows that during the first wave of the pandemic in Spring 2020, the excess weekly deaths peaked at 80% higher than expected. This then declined to around the expected number by Summer 2020 before varying above average (with 10-20% excess deaths in most weeks) until Spring 2021. Deaths in Spring 2021 were briefly below the expected number before they once again increased to be around 20% higher than expected by Autumn 2021.

Figure 3 provides more detail on the broad categories of weekly crude deaths responsible for the excess over the course of 2021. It shows that in January-March 2021 there was a substantial excess in all-cause deaths, but this was almost entirely due to COVID-19 deaths. Non-COVID-19 causes of death during this time period were generally lower than expected, with some evidence of displacement (e.g. COVID-19 deaths replacing respiratory deaths). The lower than expected number of non-COVID-19 deaths up until summer 2021 reduced the total excess deaths substantially. However, from July 2021 onwards the pattern changed, with almost all causes of death being in excess. Although COVID-19 deaths continued to represent the largest single cause of excess crude deaths (and respiratory deaths remained similar to the long-term average), ‘other’ causes of death, circulatory deaths, dementia/Alzheimer’s deaths and cancer deaths all were higher than expected. Note that inequalities in mortality have remained very wide throughout the pandemic, irrespective of whether COVID-19 is at a peak or trough (Figure 4). Most excess deaths have occurred in those aged over 65 years, but the proportion of the excess due to different causes is similar for those over and under 65 years old.

Fuller data on a wide range of conditions, with breakdowns by local area, age, sex and deprivation, are available at https://scotland.shinyapps.io/phs-covid-wider-impact/.

Figure 2 - Percentage change in deaths compared with the corresponding time in 2015-2019 by sex (downloaded from https://scotland.shinyapps.io/phs-covid-wider-impact/ on 12.12.21)

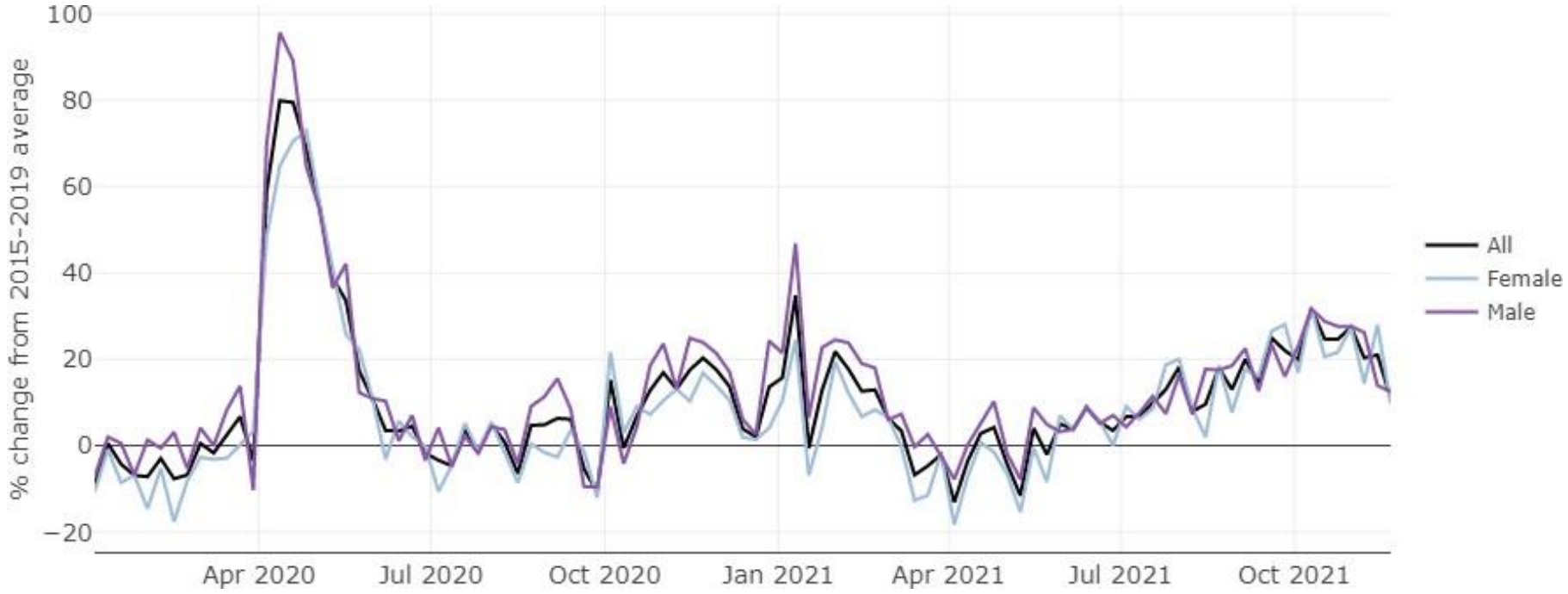


Figure 3 – Weekly excess crude deaths in 2021 by broad cause, compared to weekly average crude deaths in 2015-2019 (Redrawn from data published by NRS on 8th December 2021 at https://www.nrscotland.gov.uk/covid19stats)

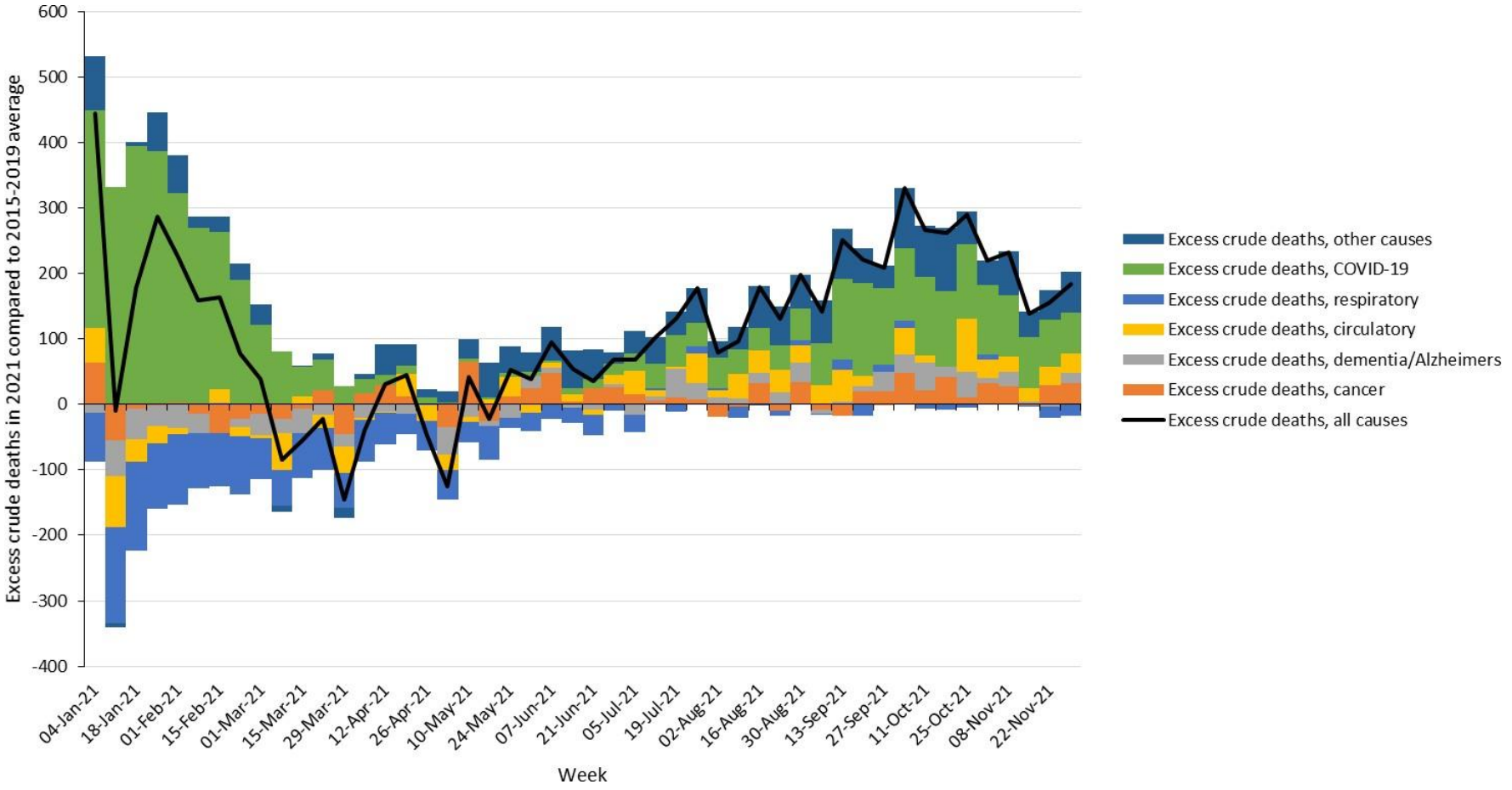


Figure 4 - Weekly number of deaths by Scottish Index of Multiple Deprivation (SIMD) quintile (downloaded from https://scotland.shinyapps.io/phs-covid-wider-impact/ on 12.12.21)

What are the realistic options open to the government in addressing the indirect health impact of the virus in winter 2021/22?

The indirect impacts of the pandemic, and the appropriate responses, depend to some degree on the scale of the restrictions that are in place. If workplace restrictions are reintroduced, the furlough scheme will be required once again to protect jobs and incomes. Even without further restrictions, the impact of higher social security benefits to reduce poverty rates remains important for population health.[12] [13] The wide range of policies that should be introduced to support health have been described in detail elsewhere.[1] **Error! Bookmark not defined.**[12]

Succeeding in reducing the indirect negative impacts of the pandemic is also dependent on maintaining access, and reducing the longstanding inequalities in the benefits of access to, health services (and indeed education services). Health needs assessments, impact assessments and health equity audits may all have a role to play here, although the evidence for the latter having been implemented effectively such that inequalities are reduced is sparse. A range of toolkits and resources are available to help support this work (see http://www.healthscotland.scot/reducing-health-inequalities/addressing-inequalities-in-practice and http://www.healthscotland.scot/reducing-health-inequalities/case-studies-of-inequalities-sensitive-practice).

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Dr Francisco Perez-Reche, University of Aberdeen's written submission

Answers provided on 07/01/2022

Updated 04/03/2022 with data visualisation plots and some additional comments in questions 3 and 4 (main text updates in cursive).

Has the public health emergency shifted from COVID-19 deaths to deaths from non-COVID-19 conditions?

Yes, an increasing trend is observed for the proportion of deaths from non-COVID-19 conditions since mid-September 2021 (data considered until Monday 14 February 2022). This trend followed from a decrease of deaths from non-COVID-19 conditions between June and September 2021. The variation of the proportion of hospital admissions of patients with non-COVID-19 conditions varied in a similar way as the proportion of deaths from non-COVID-19 conditions (there is a lag between deaths and admissions that is analysed in the following question). In particular, the proportion of non-COVID-19 admissions has also been increasing since September 2021.

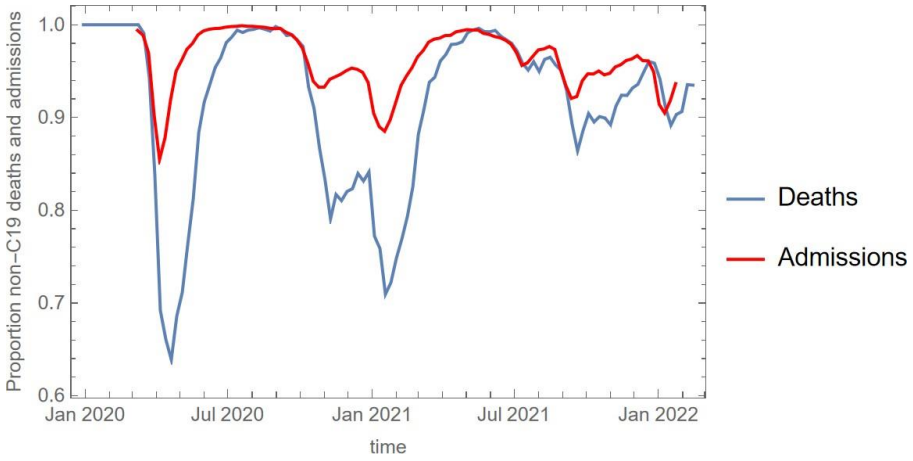


Figure 1. Proportion of non-covid related deaths and admissions.

Is there evidence that patients are now presenting in a more acute condition?

We found evidence that non-COVID-19 patients are now presenting in a more acute condition. This conclusion is based on two measures to determine if conditions became more sudden and severe. First, we analysed the time lag between admissions and deaths at different times since the beginning of the pandemic (see Figure 2). Time lags leading to the highest correlation between the time series for deaths and admissions are taken as the most likely for a given period. Before August 2020, the most likely lag between admission and death is 2-15 days with a slightly smaller correlation for lags of 9-15 days (correlation 0.96 for 2-15 days vs. 0.94 for 9-15 days). This might indicate a mixture of conditions with variable degrees of severity. In contrast, a shorter lag of 2-8 days is clearly the most likely since August 2020, thus suggesting that conditions might be more acute in recent times.

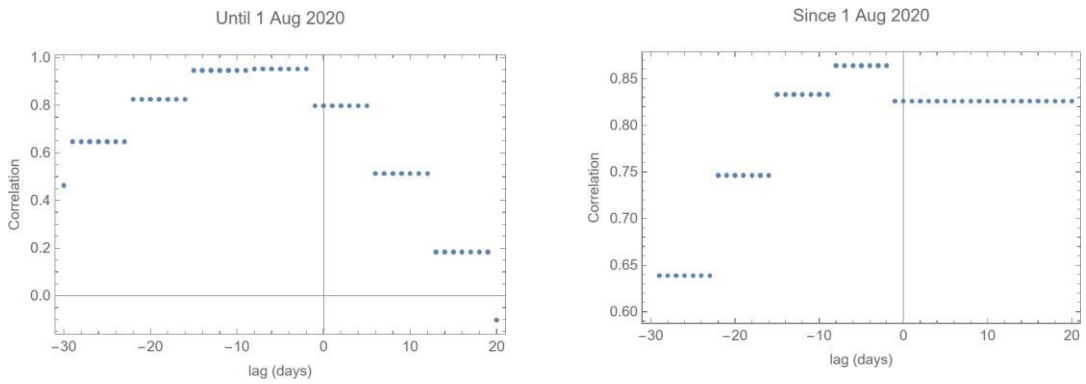


Figure 2. Cross-correlation for different lag values for the time series for the proportion of non-covid deaths and admissions shown in Figure 1. The panel on the left shows results since the beginning of the pandemic to 1 August 2020. The panel on the right shows the results since 1 August 2020 to February 2022.

As a second measure of the variation of the severity over time, we analysed the deaths to hospital admissions ratio (DAR). This gives an upper bound for the ratio of deaths occurring after a hospital admission since not all deaths occur after an admission. At the beginning of the pandemic, DAR became significantly larger than the values observed before the pandemic (around 0.7), and remained like this until May-June 2021 when it reached pre-pandemic values (see Figure 3). Unfortunately, it grew again until October 2021 when it stabilised at a higher value than before the pandemic (perhaps exhibits a mild decrease after October 2021 but this is not conclusive). This may be due to two factors: (i) an increase in the severity of non-COVID-19 conditions that led to a higher chance of death per admission in recent months or (ii) an increase in the number of deaths not linked to admissions. As discussed below, the increased severity of conditions might be due to significant delays in the treatment of patients.

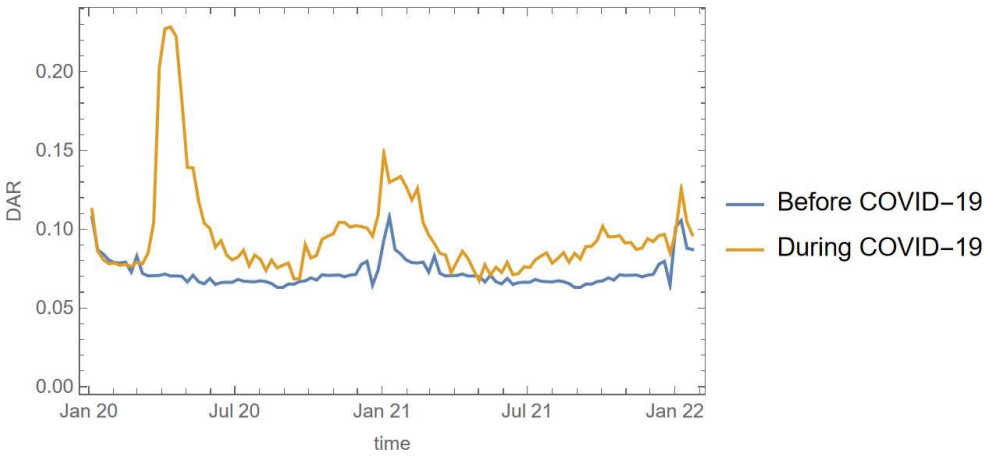


Figure 3. Deaths to hospital admissions ratio before COVID-19 and during COVID-19.

What accounts for the deaths from non-COVID-19 conditions?

The backlog of emergency and planned admissions since the beginning of the pandemic is probably one of the main factors responsible for the deaths from non-COVID-19 conditions. Indeed, a comparison of the time series for hospital admissions since the beginning of the pandemic with the admissions in pre-pandemic times shows a deficit of around 259 000 admissions until mid February 2022 (see a sustained deficit increase in Figure 4). This corresponds to approximately 115 000 planned and 144 000 emergency admissions that did not take place due to the pandemic. Patients avoiding contacting GPs may have also led to the development of more severe conditions in some people compared to pre-pandemic times. Quantifying the relative impact on non-COVID-19 conditions of the admissions backlog and reluctance to seek medical advice would require analysing individual cases in more detail.

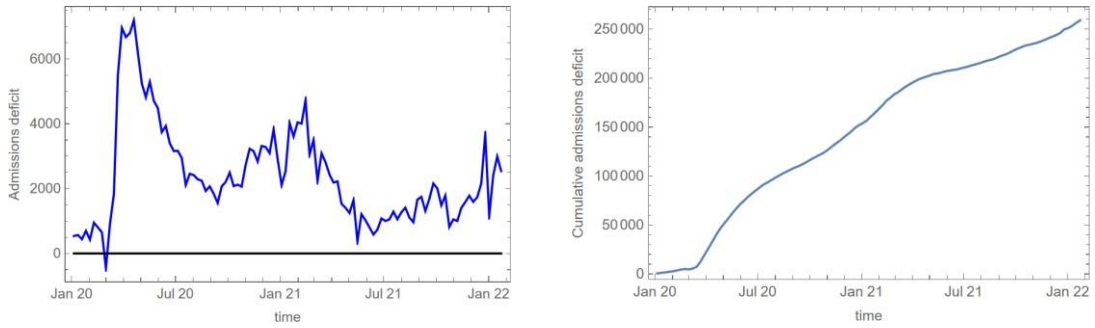


Figure 4. Cumulative deficit of admissions since January 2020.

An interesting observation from the deaths data is that the excess deaths from non-COVID-19 conditions have been consistently above zero between June and December 2021 (see Figure 5). Before that, an excess of non-COVID deaths was only statistically significant in the first wave of the pandemic (around March 2020) and in the Autumn of 2020 (see the timeline in the bottom panel of Figure 5). In any case, the fact that the excess of deaths from non-COVID-19 conditions only emerged clearly in recent months might be associated with the death of patients with, e.g., chronic conditions that were not treated early enough and became fatal.

Update on 4 March 2022: So far, the number of non-COVID deaths in 2022 are not statistically different to the number in previous years.

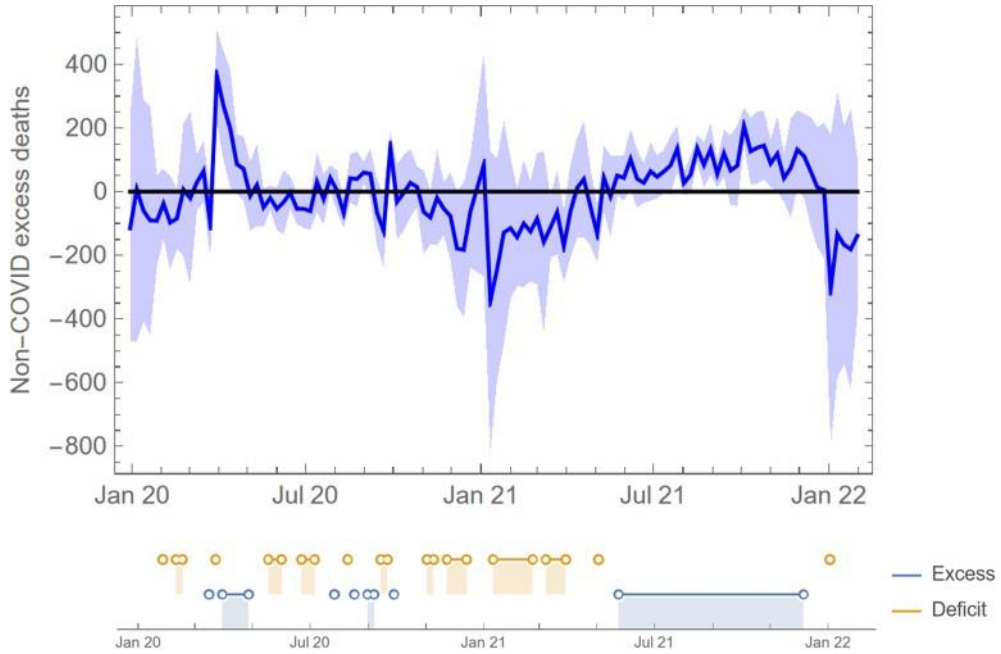


Figure 5. Non-COVID excess deaths. The upper panel shows the non-COVID excess deaths since January 2020. The blue curve shows the mean excess and the shaded regions show the 95% confidence interval. Positive values of the function indicate an excess of deaths; negative values indicate a deficit of deaths compared to pre-pandemic times. Blue circles in the lower panel indicate periods in which an excess of non-COVID deaths is statiscally significant. Orange symbols indicate periods in which a deficit of non-COVID deaths is statistically significant.

Is there enough of a strategic focus on the indirect health impacts of the pandemic?

The measures of the government to minimise the burden of COVID-19 might be helping but indirect health impacts are still serious. The 'NHS is Open' campaign seems to be helping in terms of A&E attendance. In spite of that, the excess of deaths from non-COVID-19 conditions observed in the last months suggests that more needs to be done. As discussed in the previous question, the NHS admissions backlog might be the main reason behind such excess of deaths.

Update on 4 March 2022: In addition to the potential impact of the NHS admissions backlog on non- COVID excess deaths during the pandemic, it is important to think on the longer term impact of the admissions backlog. The precise effects of the backlog are difficult to predict in the longer run but it is likely that the effects will be visible for years to come even if COVID stops having a huge effect on the NHS.

What are the realistic options open to the government in addressing the indirect health impact of the virus in winter 2021/22?

As discussed above, delays in treatments could be responsible for the consistent excess of deaths from non-COVID-19 conditions in the last months. In order to treat patients early enough, it would be important to minimise the number of

COVID-19 hospitalisations. Vaccines and other protection measures help in this respect but more is needed to reduce the current backlog of treatments and ultimately reduce the excess of deaths. Strategies to achieve this might include stricter measures to prevent the spread of the virus even further so that COVID-19 hospitalisations do not seriously delay the treatment of other conditions. A careful analysis of the death reasons from non-COVID-19 conditions in the last months might also help identify patients whose treatment needs to be prioritised before it is too late. Increasing the resources in terms of medical personnel and facilities would also help reduce waiting times and excess deaths (although this would definitely help, we are not in a position to assess the economic feasibility).

ANNEXE B

Letter from the Cabinet Secretary for Health and Social Care to the Convener - 14 February 2022

Inquiry into excess deaths in Scotland

I am writing further to your request, on 17 January 2022, to provide information to support your inquiry into excess deaths in Scotland since the start of the COVID-19 pandemic.

The Scottish Government is pleased to assist with the Committee's inquiry, and has provided responses to the each of the information requests in the annex below.

The Committee's request for information covered a range of different policy areas and data sets. Some of the information requested is already in the public domain, where this is the case we have excerpted the relevant material and signposted the source. Unfortunately it was not possible to provide all of the information requested, where we were unable to precisely meet a request we have added a note to explain this and noted if this is due to be published in the coming months.

Please do not hesitate to reach out if you have any further questions or requests, my officials and I shall be happy to assist.

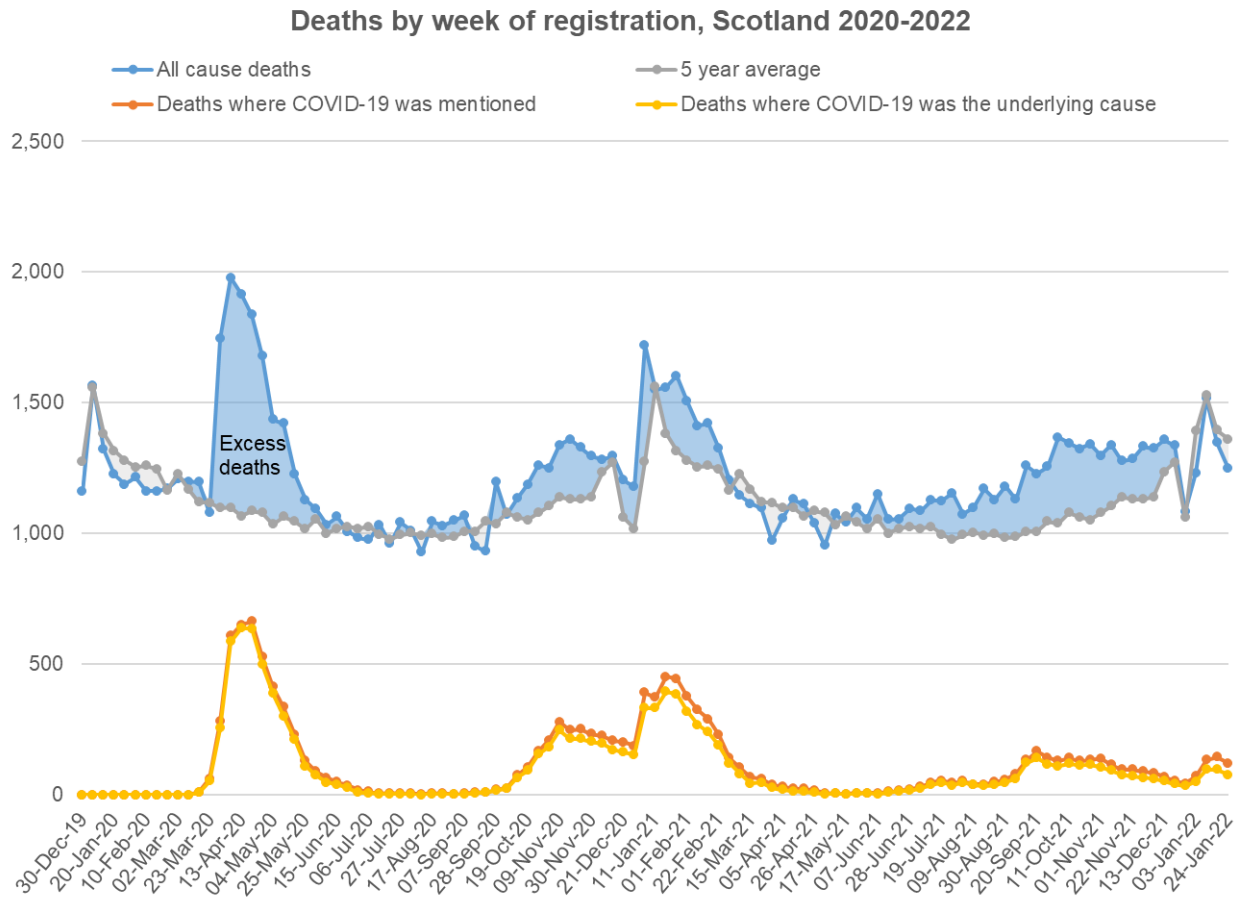
Kind regards,

HUMZA YOUSAF

Annex: Scottish Government responses to information requests from the COVID-19 Recovery Committee

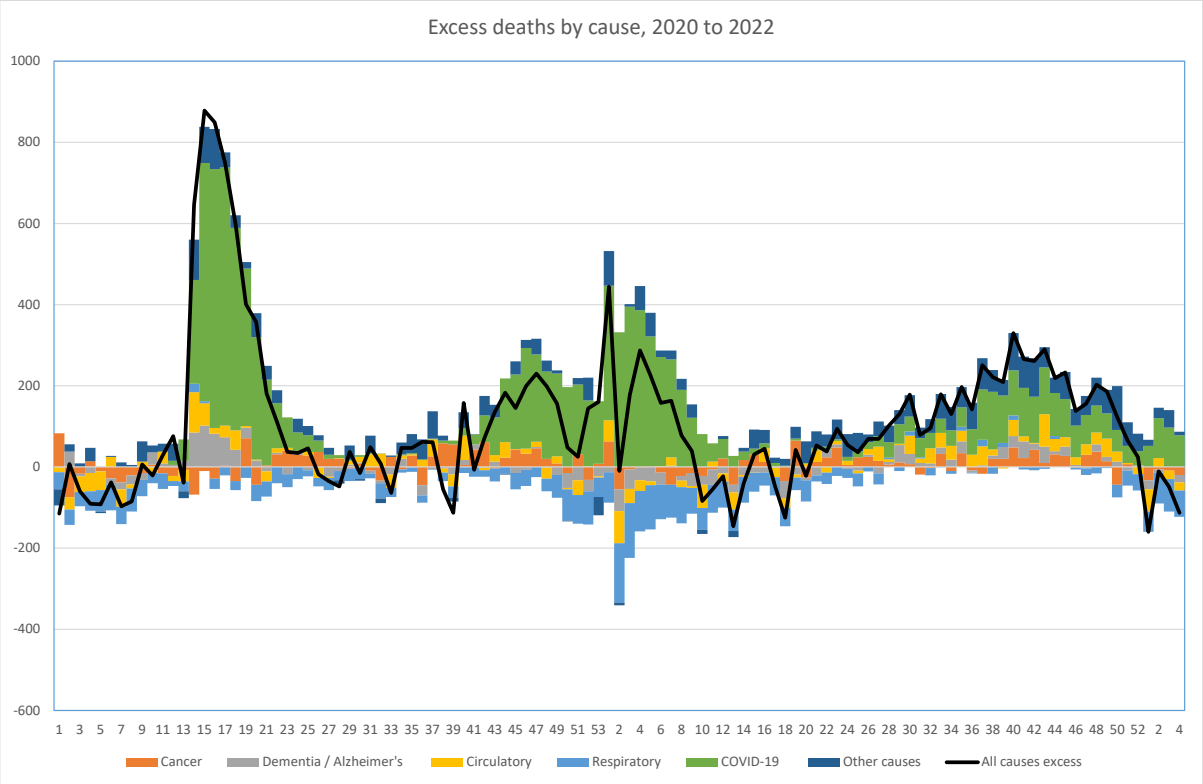
1.	**A combined chart of excess deaths broken down by each week and weekly COVID deaths (as seen on the four harms data on SG website).**
2.	**The difference between the two lines is important as these are the unexplained deaths – the Committee want to know their causes, and whether there is a focus of cause**

National Records of Scotland (NRS) publish data on deaths involving COVID-19 in Scotland on a weekly basis. The chart below shows the excess deaths and total deaths by week for Scotland from the week ending 30 December 2019 – the week ending 30 January 2022.



Source: https://www.nrscotland.gov.uk/files//statistics/covid19/covid-deaths-22-data-week-04.xlsx

Excess deaths compared to the 2015-2019 average for four main underlying causes of death (cancer, dementia, Alzheimer's disease, circulatory causes and respiratory causes) for 2020-2022 are shown in the chart below.



Source: https://www.nrscotland.gov.uk/files//statistics/covid19/covid-deaths-22-data-week-04.xlsx

In the first wave the majority of excess deaths involved COVID-19 but there were a small number involving other causes, including dementia, Alzheimer's, circulatory causes. Later in 2020 excess deaths were lower than COVID-19 deaths, mainly due to a reduced level of respiratory deaths compared to the expected level. This continued for the early part of 2021, and from late spring onwards, there were excess deaths across most of the causes (except respiratory).

Details on excess deaths by underlying causes of death for 2019, 2020 and 2021 are publicly available[1].Detailed cause of death figures for 2021 are not yet available, the Scottish Government intends to publish these by summer 2022, and we will of course be happy to notify the Committee when these have are published. Monthly data on deaths registered in Scotland is publicly available[2]. Secondary analysis of NRS deaths data relating to people with dementia during the COVID-19 pandemic in different settings was published on 9 February 2022[3] and a letter outlining the key findings has been shared with you.

1 https://www.nrscotland.gov.uk/files//statistics/covid19/covid-deaths-22-data-week-04.xlsx
2 Monthly Data on Births and Deaths Registered in Scotland (Table 5)
3 https://www.gov.scot/isbn/9781802018905

3. Evidence of delayed presentation of disease (e.g. stage of cancer presentation – possible source SMR6 cancer registry data.

Cancer diagnosis and treatment have remained a priority throughout the pandemic and patients referred with an urgent suspicion of cancer have continued to be prioritised for key diagnostic tests.

The most recently published information, from Public Health Scotland, covers staging information for Lung, Breast and Colorectal cancers only (up to December 2020) and is publicly available[4].

Staging is only one aspect of measuring overall cancer care in Scotland, where we still continue to meet our 31 day treatment standard. During the COVID pandemic, once a decision to treat was made, cancer patients in Scotland waited on average between two to five days for treatment. We have treated more patients within the 62 day standard during the latest published quarter (Q3 2021) (3,334) compared to the same time pre-Covid (Q3 2019, 3,263).

The Scottish Government's commitment to improving cancer diagnosis and treatment is reflected in our £44m Detect Cancer Early Programme, which we have committed an additional £20m to over the parliamentary term. The Scottish Government has established three Early Cancer Diagnostic Centres (ECDC), providing primary care with a new referral route for patients with non-specific symptoms suspicious of cancer. We also recently invested £10m to support cancer waiting times improvements, helping ensure those with a suspicion of cancer are seen and treated as early as possible.

4. Information on severe cardiac disease. How many people are dying whilst on waiting lists for intervention? What is happening to the rate of sudden cardiac death in the community?

NHS Scotland does not currently collect data on whether the cause of death for a person who is removed from elective waiting lists as a result of dying is related to the condition that necessitated them being on the waiting list.

As noted above, detailed breakdown of excess deaths by cause, including sudden cardiac deaths, is available for 2020, although detailed cause of death figures for 2021 are not yet available. These are due to be published in summer 2022. The Scottish Government will be happy to notify the Committee once these are published.

5. Information on diabetes - evidence of more frequent presentation of failures of control i.e. A/E attendances and admissions for hypoglycaemic episodes or episodes of diabetic ketoacidosis

[4] Cancer staging data using 2018 to 2020 DCE data - the impact of COVID-19 - Cancer staging data using 2018 to 2020 DCE data - the impact of COVID-19 - Publications - Public Health Scotland

Data provided by Public Health Scotland details annual trends on continuous inpatient stays by diagnosis and shows that there has been a reduction in admissions with diagnosis diabetes in 2020/21 compared to 2019/20 as shown in this publicly available analysis[5].

6. Information on A/E attendances for acute asthmatic attacks and admissions for that and also for chronic obstructive airways disease

As noted above, data provided by Public Health Scotland details annual trends on continuous inpatient stays by diagnosis[6]. This includes some information on hospital admissions with asthma and Chronic Obstructive Pulmonary Disease (COPD) diagnoses and combines elective and emergency admissions. There has been a reduction in admissions with a diagnosis of disease of the respiratory system in 2020/21 compared to 2019/20.

7. Waiting times data, ideally the Committee is looking for data on when someone who is presenting now will realistically be treated, i.e. how long will they wait given what we know about current service levels.

8. Information on waits for "urgent suspicion of cancer" cases

Public Health Scotland publishes a wide range of information on waiting times, which is available from their website[7].

We recognise the significant pressure that the NHS continues to experience and we cannot underestimate the risks from COVID-19, which is likely to remain with us for some time to come. Evidence based caution is at the forefront of our decision making and we will continue to work with Health Boards to remobilise the NHS in the safest possible way, while also supporting Boards to prioritise elective activity on the basis of clinical urgency.

Public Health Scotland are developing a new set of statistics in the topic area of 'urgent suspicion of caner' and we will be happy to share this publication with the Committee as soon as the data is released

9. Information on endoscopy and cystoscope waiting times and those for CAT and PET scans

Public Health Scotland publish data on waiting times for key diagnostic tests including endoscopy and cystoscopy and CAT scans[8].

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5 Acute hospital activity and NHS beds information (annual) - Annual - year ending 31 March 2021 - Acute hospital activity and NHS beds information (annual) - Publications - Public Health Scotland

6 Ibid

7 Diagnostic waiting times - Waits for key diagnostic tests 30 November 2021 - NHS waiting times - diagnostics - Publications - Public Health Scotland.

8 https://publichealthscotland.scot/media/10505/2021-11-30-diagnostic-tests-nov21.xlsx

The Scottish Government has committed to a Endoscopy and Urology Diagnostic Recovery and Renewal Plan, backed by total investment of £70 million over the lifetime of the Plan.

10. Information on routine screening programmes e.g. breast, cervix, bowel and others during the pandemic

All NHS Scotland national adult screening programmes have resumed safely having been paused in the early stages of the pandemic. This has been taken forward in a series of stages, with the initial focus on higher-risk screening participants.

The Scottish Breast Screening Programme (SBSP) restarted in August 2020 in line with the recommendations of the organisations that oversee screening in Scotland, including the Breast Screening Programme Board and the Scottish Screening Committee. However, these organisations and the National Screening Oversight (NSO) have recommended a continued pause to self-referrals for women aged 71 and over, to allow the service to prioritise those aged 50 to 70 for whom the benefits of screening are clear. The SBSP continues to recover although capacity challenges remain. Prior to omicron, 70% of all women were receiving appointments within 41 months of their last screen. Breast screening for those at very high risk of cancer (which is not a nationally managed screening programme) and annual surveillance scans for those treated for breast cancer were not affected by the pause to the national screening programme.

Non-routine cervical screening appointments resumed in mid-July 2020, with a catch-up exercise undertaken which prioritised higher-risk participants on the non-routine pathway. Those receiving non-routine screening are now receiving appointments as if the pause had not happened. Routine screening appointments commenced from September 2020. Currently, participants on the routine pathway are receiving their invitations around six months later than they would have done pre-March 2020.

NHS Boards resumed bowel screening in October 2020, with new home testing kits for the bowel screening programme posted out from 12 October 2020. Bowel screening is continuing to operate in line with pre-COVID performance; the same number of invitations are being issued. In general, invitations are delayed by around six months for everyone on the programme. The exceptions are invitations for first screenings, which issue to participants as they turn 50 and become eligible for the programme. Uptake is slightly higher and positivity rate is consistent with that before the pause. Downstream colonoscopy capacity continues to be challenging, and the screening programme is monitoring the impact on the screening programme and exploring management options.

Abdominal Aortic Aneurysm screening resumed in July 2020, prioritising men in the high risk cohort. By the end of March 2021, annual statistics published by Public Health Scotland reported that the programme continues to send out the initial screening invitation at a 90.5% rate, which is lower to pre-Covid level of 97.4%, but above the KPI standard of 90%. However, the programme has maintained screening the eligible population before they turn 66 and 3 months at a rate above 75%. Which is similar to pre-Covid-19 rates.

Unlike the rest of the adult population screening programmes, the DES programme targets screening individuals with the specific condition of diabetes. The Diabetic Eye Screening Programme resumed in August 2020, prioritising those at high risk of developing diabetic retinopathy. Routine screening resumed in October 2020 once the programme had screened high risk screening participants. Despite the challenges, the programme continues to make steady recovery that is in line with the screening programmes recovery route map.

11. Information on ambulance attendance time figures for each category of urgency, again shown over time if possible

The Scottish Ambulance Service, as emergency front line responders, have played a pivotal role in the response to Covid-19. Despite significant workforce challenges, increased higher acuity demand and significant delays in handing over patients at emergency departments due to reduced capacity, the Service has been able to maintain a stable response to their highest risk patients.

The Scottish Ambulance Service have been publishing Unscheduled Care Operational Statistics publication since 24 November 2021[9].

The Scottish Government acknowledged the additional pressures faced by the Service and introduced a package additional £20m investment in September 2021 to help increase capacity, support improved response times and support staff welfare. Work continues with the ambulance service and Health Boards to look at introducing further measures to help improve turnaround times at emergency departments for ambulances which will ultimately improve ambulance response times.

12. Information on primary vs secondary cause of death (for example, attribution of cause, e.g. underlying mental health)

The guidance for certifying doctors on completing death certificates suggests that they should be recording COVID-19 on the death certificate if the disease has played a role, but the guidance does not suggest that COVID should be recorded as a societal situation.[10]

Whether they record it as the underlying cause or as a contributory factor is dependent on the circumstances of each case and the chain of events which led to the death, the relevant guidance outlining this is publicly available[11].

13. Information on violent deaths, e.g. intimate partner violence

[9] https://www.scottishambulance.com/publications/unscheduled-care-operational-statistics/
[10] Death Certificates and Coding the Causes of Death | National Records of Scotland (nrscotland.gov.uk)
[11] The Medical Certificate of the Cause of Death | National Records of Scotland (nrscotland.gov.uk)

The Homicide in Scotland 2020-21 National Statistics include all cases of Murder and Culpable homicide (common law) recorded by the Police in Scotland, this associated data is publicly available[12].

Between 2019-20 and 2020-21, the number of homicide cases recorded by the police in Scotland decreased 15% (or 10 cases) from 65 to 55. This is the lowest number of recorded homicide cases since comparable records began in 1976. The nationwide lockdowns and other measures put in place to limit social contact during the pandemic may have had an impact on the number of homicide cases.

14. Measures of background health of population, e.g. obesity

In order to ensure that the effects of the pandemic on general population health have been understood the Scottish Government has taken steps to ensure that relevant measurements have been maintained throughout the pandemic. This includes the Scottish Health Survey being moved to a telephone basis after face to face interviews were stopped.

The latest Scottish Health Survey results can be found in full on the Scottish Government website[13].

15. Provision of preventative care and uptake of such measures

In addition to the preventative measures provided by routine screening programmes, as detailed in Section 10, the Scottish Government is fully committed to tackling issues such as smoking, poor diet and levels of excess weight[14], physical inactivity and alcohol misuse – all of which will support people to live longer, healthier lives. Work is underway to deliver a range of measures to target these harmful health behaviours early and provide access to person-centred treatment when needed.

Our 2021-22 Programme for Government[15] committed to introduce a Public Health Bill that includes restrictions on unhealthier food and drink promotions during the course of this Parliament. We continue to support boards to implement the 2018 A Healthier Future: type 2 Diabetes prevention, early detection and intervention: framework[16]. Boards provided weight management and type 2 diabetes services using remote support for patients during the pandemic. In 2021/22, we provided core funding of £5.7m to boards to improve weight management services, supporting adults with, or at risk of, type 2 diabetes or pre-diabetes. We also continue to fund the Healthy Living Programme in over 2,300 convenience stores, mainly in more deprived areas. The Scottish Government are also working with sportscotland to ensure that Active Schools programmes are free for all children and young people, providing more opportunities before, during and after school.

[12] Homicide in Scotland 2020-2021: statistics - gov.scot (www.gov.scot)
[13] Scottish Health Survey – telephone survey – August/September 2020: main report, published January 2021.
[14] A healthier future: Scotland's diet and healthy weight delivery plan - gov.scot (www.gov.scot)
[15] A Fairer, Greener Scotland: Programme for Government 2021-22 - gov.scot (www.gov.scot)
[16] A Healthier Future: type 2 Diabetes prevention, early detection and intervention: framework - gov.scot (www.gov.scot)

We provide £9 million a year to health boards to fund smoking cessation services in the most deprived areas. Smoking is a significant cause and effect of Scotland's unfair and unjust health inequalities, with smoking rates ranging from 35% in Scotland's most deprived communities to 11% in its least deprived. Each year, tobacco use is associated with 108,000 smoking attributable hospital admissions and 9,332 smoking attributable deaths in Scotland - a fifth of all deaths.

The majority of quit attempts through NHS stop smoking services are by people in the most deprived communities where smoking rates are highest. Around 70% of quit attempts are made through community pharmacies - who provide this service on behalf of NHS Scotland - rather than direct through specialist stop smoking services. The Scottish Government have set a target to reduce smoking prevalence in Scotland to 5% by 2034 and Government launched a consultation to introduce regulations on the domestic advertising of e-cigarettes on 3 February 2022.

The Local Delivery Plan (LDP) Standard for drug and alcohol treatment waiting times expects that 90% of people receive access to appropriate drug and/ or alcohol treatment within three weeks of referral to support their recovery. Since 2008 we have invested over £1bn to tackle problem alcohol and drug use, this year we're spending £140.7m on alcohol and drug use. Increased investment from the national mission on tackling drug-related deaths is being used by Alcohol and Drug Partnerships across Scotland to support people facing problems because of both alcohol and drug use. We are exploring the evidence around Managed Alcohol Programmes and are contributing to the running of the model being piloted in Glasgow by Simon Community Scotland and its evaluation.

Through the emerging Care and Wellbeing portfolio we are working to Improve Healthy Life Expectancy and deliver fairer outcomes. The portfolio, which we intend to stand up in the Spring provides an opportunity for us to design a progressive health and social care reform package that provide greater coherence, sustainability and improved outcomes within the portfolio.

Our NHS and social care institutions have a core role to play in reducing health inequalities in Scotland. We are supporting health and social care providers to become anchor institutions as part of the roll out of Community Wealth Building. As 'anchors', our health and social care services will support their local community through their spending, investment, employment and use of physical assets

A Preventative and Proactive Care programme has been established as part of the Care and Wellbeing Portfolio to give focus to this area of work across a range of policy areas. This programme aims to enable people to proactively keep well and independent and in the most appropriate care setting for their needs if they enter the care system. A range of pathfinders are currently being developed to consider this in a variety of contexts, including deep end GP Practices, prisons, residential rehabilitation, local authority areas and support for frail elderly people. This work is in the early stages of development and the Scottish Government will share outcomes in due course.