

RECOVER, RESTORE, RENEW

Chief Medical Officer for Scotland
Annual Report 2020 - 2021



	Page
Foreword	2
Health of the Nation	5
Delivering Personalised Care	15
Reducing Health Inequalities	27
Sustainability of our Workforce	39
Green and Sustainable Healthcare	49
Acknowledgements	61
References	66



FOREWORD



FOREWORD



I vividly remember reading about historical pandemics at medical school and wondering what it must have been like to provide care for people in such an intense and fluid environment. When the first Realistic Medicine report was published 5 years ago, I suspect that there were few who fully anticipated the imminence of the scenes we have witnessed in health and care across the globe, or the impact that the latest pandemic would have, and continues to have, on all of us. This year has brought many challenges and sadness. I recognise that it has been tough for all of us. The way we have united to support one another, continued to provide world-class care in a new and complex

landscape, rapidly develop guidance, shown brilliance in innovation, and demonstrated real resilience throughout this extremely stressful and frightening time has been remarkable. I would like to thank you all for the courage, commitment and determination you have shown.

Thanks to the amazing innovation and ingenuity of scientists worldwide, we now have treatments to support people with COVID-19, and vaccines that will aid the control of the virus. This critical research, and advanced technologies such as genome sequencing, will help us continue to identify new strains as they emerge, determine the threat that they pose and respond appropriately. I'm very proud of the contribution our scientists, healthcare workforce, and the people of Scotland have made.

This is my first annual report as Chief Medical Officer for Scotland. It not only provides the opportunity to reflect on our shared experience of the pandemic and highlight areas of good practice and innovation over the last year, but also identify areas that require more attention. The report is focused around five key themes: the health of the nation, delivering personalised care, reducing health inequalities, sustainability of our workforce, and green and sustainable healthcare.

The effect that the COVID-19 virus has had on the country has been devastating for many. However, it has also compelled us to redesign and improve many aspects of health and care services, and to rethink the way we practice. We must recognise the cost and repercussions of not learning from our experiences during the pandemic. Although we have come a long way, we want to go further.

Many of you have told me that by practising Realistic Medicine you have been able to make a positive impact on the people we care for, and that during the pandemic it has become more important than ever. Realistic Medicine has guided shared decision making and personalised the care we provide in what have been exceptionally difficult circumstances. We have had to rapidly adapt our ways of working in this new landscape and deliver many innovative treatments at pace. We have had to balance new and emerging risks, ensure we minimise harm, and avoid wasting precious health and care resources. Realistic Medicine leads have been appointed in Health Boards and I have arranged for increased funding to provide more Realistic Medicine clinical lead and programme manager time. Our local leads will work collaboratively with their Boards to create networks that will support us all to practise Realistic Medicine. Realistic Medicine is also firmly embedded as a key enabler within the NHS Clinical Prioritisation, Remobilisation and Rehabilitation Frameworks. I believe that by practising Realistic Medicine we will be able to address many of the challenges we face as health and care professionals, now and in the future.

Just as in the pandemics I read about in medical school, the COVID-19 pandemic has exposed and exacerbated the health inequalities that exist across our society. I came into the position of Chief Medical Officer for Scotland during a period of uncertainty, when problems required rapid solutions, and there were major changes to our healthcare practices. This, combined with the extraordinarily difficult experiences of those working in health and care during times that have never been so trying, has re-emphasised the importance of working in strong supportive teams. Our workforce have shown great commitment and determination in rising to the challenges

generated by the COVID-19 virus, but for some it has come at a cost to their own physical or mental health. As we begin to recover our health and care system, we cannot lose sight of this. We must do all that we can to support and sustain our colleagues.

The COVID-19 pandemic has highlighted the need for change. We should not only be dealing with the consequences of the pandemic; we also need to broaden our focus to confront other urgent issues, such as the climate crisis. As we remobilise services, we need to consider how we can build towards a greener society and a more sustainable healthcare system.

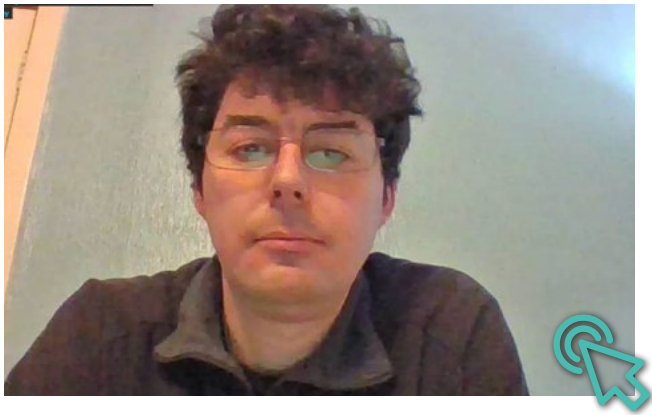
This year's annual report reflects on the above themes and encourages us to build on this momentum for change, as we *"Recover, Restore, Renew"* our health and care services.

Dr Gregor Smith

Chief Medical Officer for Scotland

HEALTH OF THE NATION





A healthier population could be one of our nation’s most important assets and must be our ambition. In this chapter I share key statistics and figures that demonstrate the current health of the nation amidst the COVID-19 pandemic. I will provide a summary of the current issues affecting Scotland’s population health with a particular focus on the urgent need to tackle health inequalities, which have been magnified during the pandemic.

STALLED LIFE EXPECTANCY TRENDS

Improving the length of time people live in good health is a core objective of the Scottish Government’s **National Performance Framework (NPF)**, and of the United Nations, through their **Sustainable Development Goals (SDGs)**. Until around 2012, average life expectancy had been increasing steadily in Scotland. This increase has subsequently stalled with little or no improvement since then. Of concern is emerging evidence that healthy life expectancy has also stopped improving over the last decade.¹⁻³

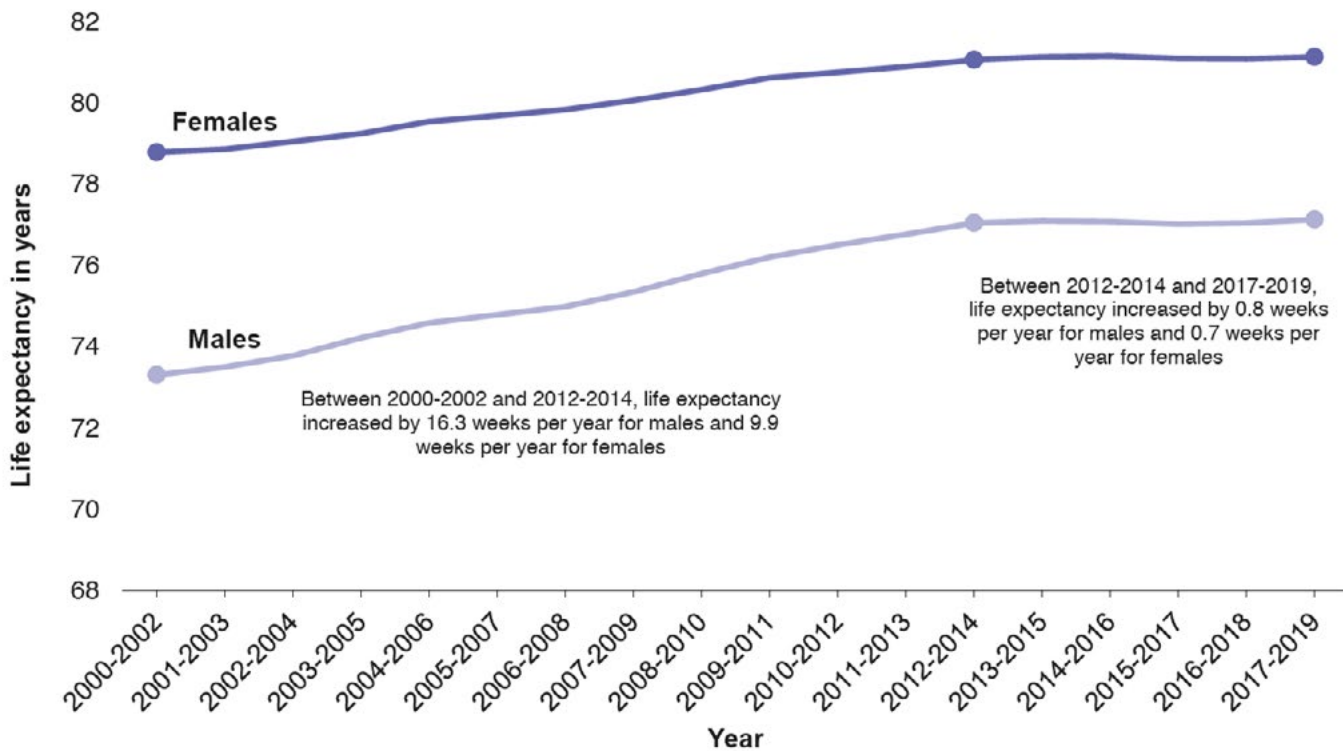


Figure 1 - The stalled trends in life expectancy improvement, Scotland, 2000-2002 to 2017-2019 (Source: National Records of Scotland)

Since 2012, life expectancy trends have stalled not only across Scotland (Figure 1), but also in England, Wales, Northern Ireland, the USA and some European countries.⁴ In Scotland, there has been an accompanying rapid increase in inequalities in life expectancy, with life expectancy noted to be decreasing in the most deprived 40% of areas.¹ A particular concern is the rise in drug-related deaths which has impacted mostly on adults aged 35-55 years living in disadvantaged areas in our cities and urban areas.⁵

The reasons for these trends have been fiercely debated. Several studies attribute our stalling life expectancy to the consequences of austerity-driven constraints on health, care and other public spending, and their impact on public services.⁶⁻⁸ A reduction in people's income is also thought to have led to worsening health outcomes.⁹ ¹¹ Across Great Britain, the incomes of the poorest tenth of households are estimated to have decreased by 8% in real terms between 2011/2 and 2021/2.¹² It is also thought that austerity led fiscal policies have resulted in welfare cuts, increased barriers to receiving benefits and failing wages that have not increased in line with inflation. These are all factors that may contribute to a real loss of income for many.¹² Modelling of the impact of these changes in income predicts marked reductions in life expectancy and increases in inequalities.¹³

A range of studies suggest changes to economic and social policies have impacted on our health through increased insecurity, poverty, material deprivation, destitution and stress.¹⁴⁻¹⁸

Other studies, while acknowledging that austerity may have contributed toward some excess deaths, suggest that there could be other explanations such as the growing complexity of medical conditions in our ageing population, the contribution of decelerating improvements in cardiovascular disease (CVD) mortality, and periodic bad flu seasons.¹⁹⁻²⁰

It has also been noted that the slowdown in mortality improvements is occurring at a time when health and care services have experienced increasing demand and unprecedented financial pressures. There is evidence that increased pressure on services is associated with worse mortality trends and may be a contributory factor to life expectancy trends.²¹⁻²²

WHAT IMPACT WILL COVID-19 HAVE ON LIFE EXPECTANCY?

Predicting the impact of COVID-19 on life expectancy is difficult for several reasons. The large numbers of deaths that COVID-19 has caused, or hastened, among people with pre-existing conditions and frail older people may be counter-balanced by fewer deaths in the future. Some of our excess deaths could be offset by fewer deaths from air pollution and transport accidents.¹⁹ The indirect impact of COVID-19 caused by socio-economic factors could also have an adverse impact on health and mortality overall and are difficult to quantify. The overall impact that this pandemic is likely to have on life expectancy will become clearer in due course.

THE IMPACT OF COVID-19 ON HEALTH AND WELLBEING

The COVID-19 pandemic is one of the biggest population health challenges we have faced. Figure 2 shows the adverse impact the pandemic may have had and may continue to have on the health and wellbeing of our population. It includes both the direct impact of the virus as well as the unintended consequences of the control measures we implemented to reduce the spread of the virus.²³⁻²⁴

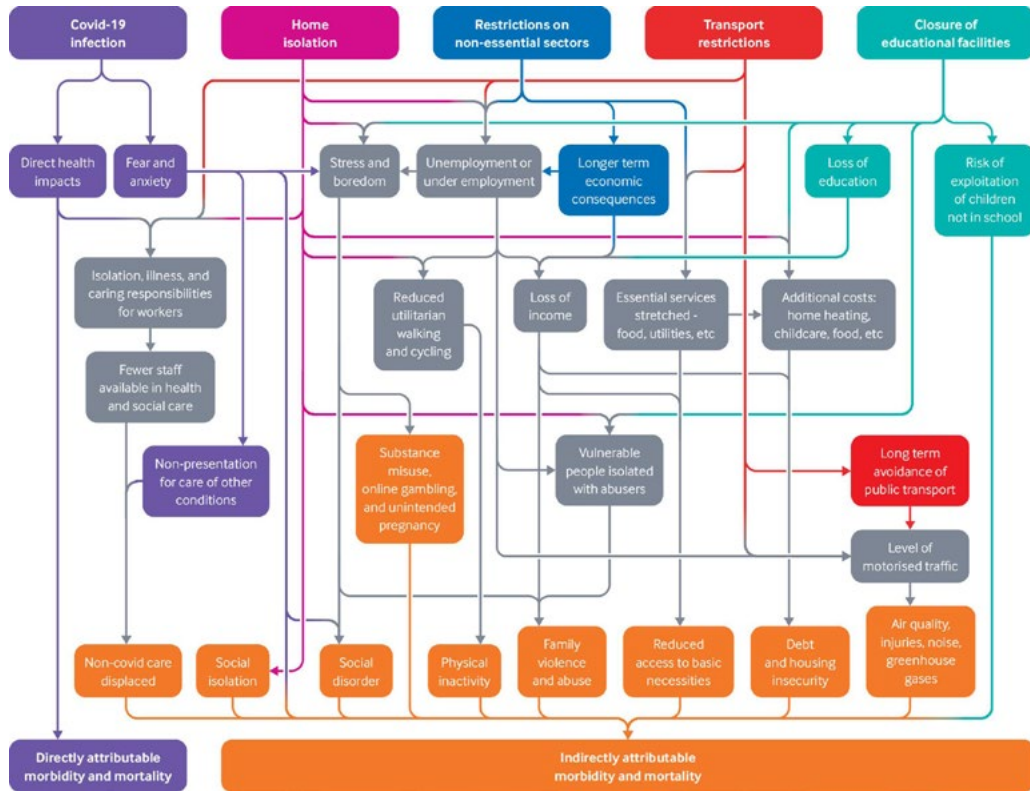


Figure 2 - Ways in which the pandemic control measures may have had unintended consequences on population health. Source: Douglas et al, 2020

DIRECT COVID-19 IMPACTS

Direct Deaths from COVID-19

Figure 3 shows the weekly number of deaths in Scotland where COVID-19 was mentioned on the death certificate, either as the confirmed underlying cause of death, or a contributory cause. There is near real-time, daily published data available from both **National Records of Scotland (NRS)** and **Public Health Scotland** on the number of people who received positive COVID-19 tests, and the number who died within 28 days of a first positive test. Under the wider measure produced by NRS, as of the 14th of February, there have been a total of 9053 deaths registered where COVID-19 was mentioned on the death certificate.²⁵

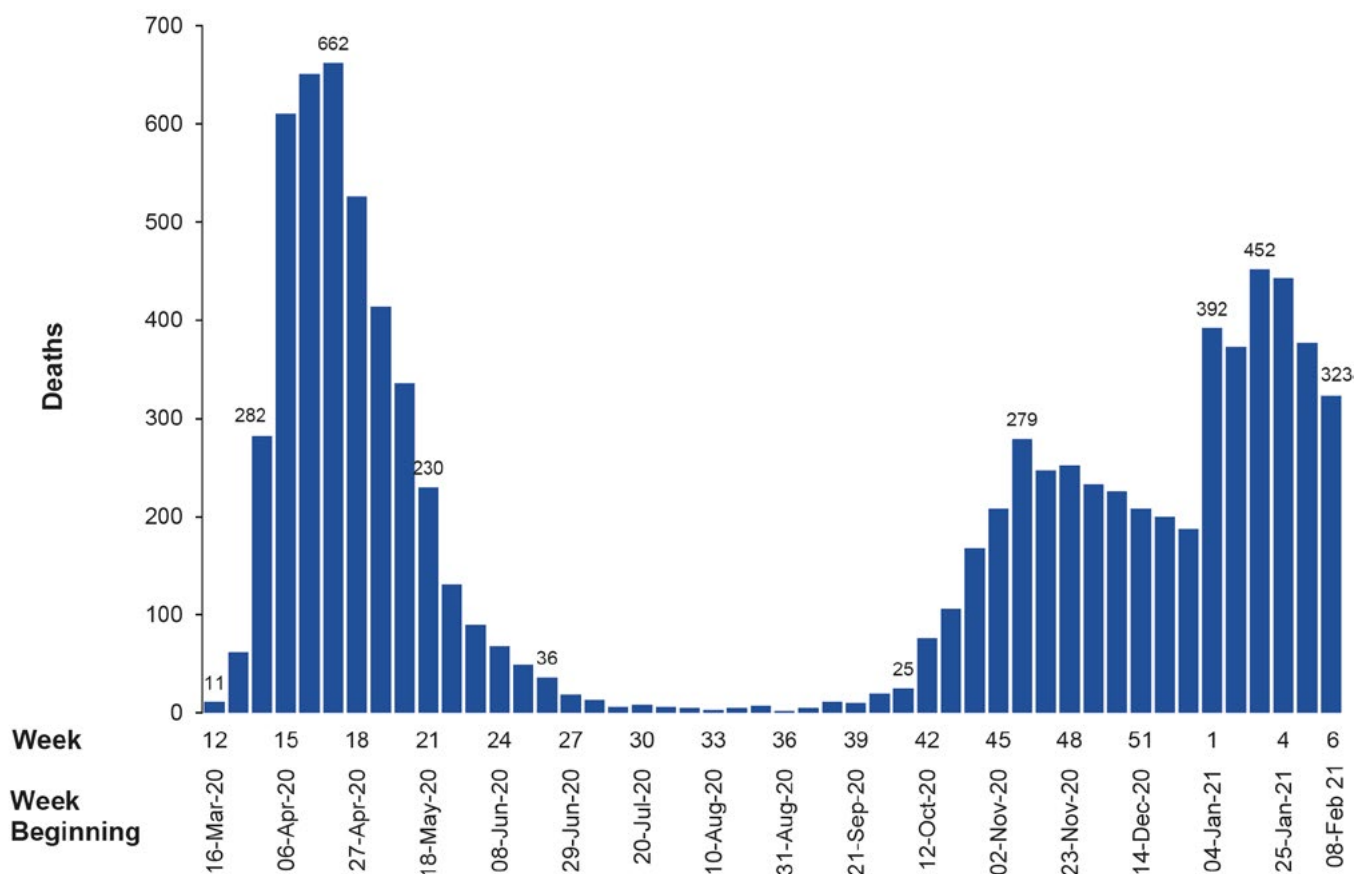


Figure 3 - The weekly number of deaths involving COVID-19 (where COVID-19 was mentioned on the death certificate either as the confirmed underlying cause of death or a contributory cause) Source: National Records of Scotland

The majority of those who have died directly from COVID-19 so far have been elderly or those with pre-existing health conditions. While the number of years lost in terms of average life expectancy in this cohort may be small, the rapid spread of the virus may cause a high level of excess mortality through direct and indirect effects, thus having a substantial impact on our life expectancy trends.²⁴

There is concern that there may be long-term health consequences for a proportion of people who have been infected with COVID-19 (often described as long COVID). As this is a new virus, the proportion of people affected, the range of symptoms they experience, and the length of time they experience them for is not yet fully understood.²⁶ **Guidance** to help us care for people who have signs and symptoms of long COVID has been developed.²⁷

Excess Deaths

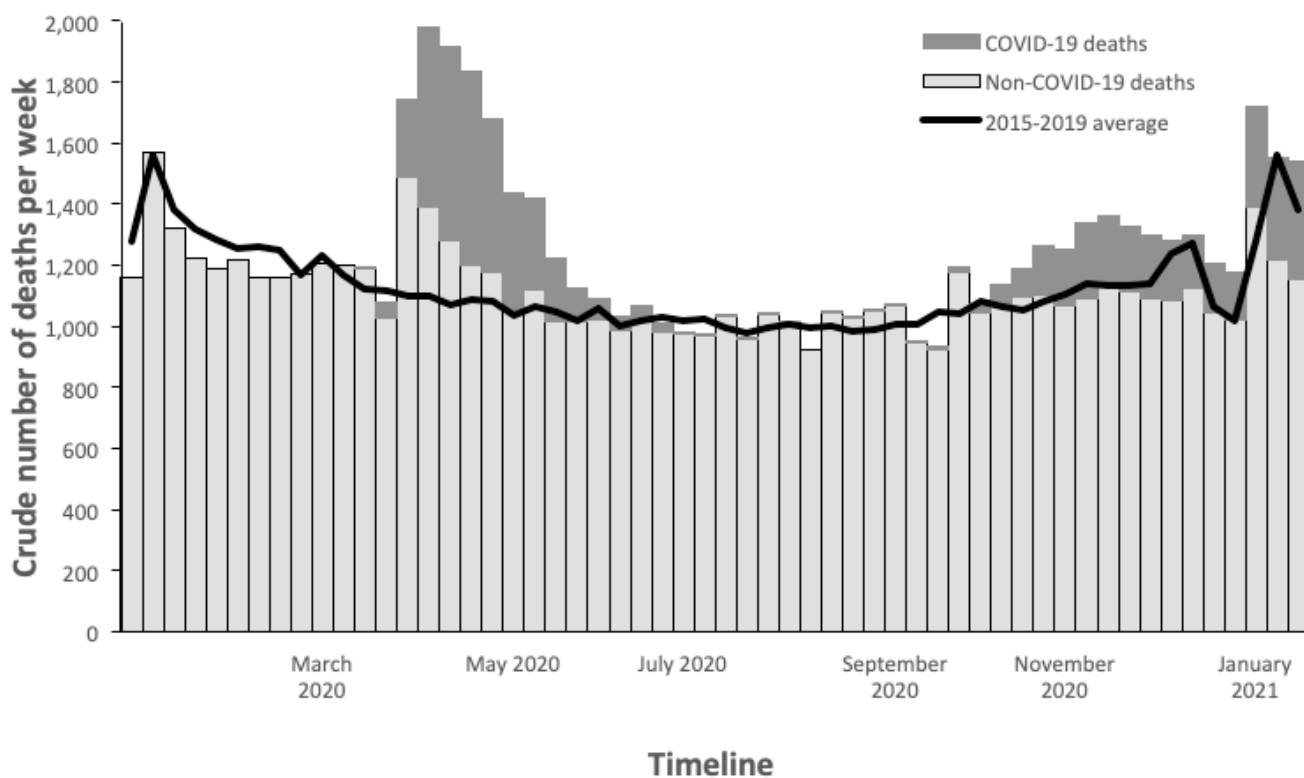


Figure 4 - Excess deaths since the start of the pandemic (Source: Drawn from National Records of Scotland data)

Excess deaths in Scotland are defined as those in excess of a pooled average for the same weeks during 2015-19. Excess deaths include deaths caused by COVID-19 and those resulting from other causes.²⁸ In Figure 4, excess deaths are shown by the difference between the solid black line, which shows the weekly average for deaths over the previous five years, and the top of the grey bars which shows the total number of deaths since the start of 2020. The number of deaths certified as COVID-19 are indicated by the size of the dark grey bars. This shows that about a third of the excess deaths during the first wave in April-May were not certified as being due to COVID-19. Through the summer and early autumn, deaths returned to the long-term average. During the second wave from November onwards, COVID-19 accounts for all of the excess deaths in Scotland, with other deaths being slightly lower than the long-term average.²⁸

INDIRECT COVID-19 IMPACTS

There have been wide indirect impacts on our health, society and the economy as a result of the measures introduced to control the pandemic.²⁹ These impacts, along with the direct health impacts of COVID-19, have informed and supported decision making through the Route Map process and Local Protection Levels, as detailed in the [Framework for Decision Making - Assessing the Four Harms of the Crisis](#).³⁰

INDIRECT IMPACTS ON HEALTH

The pandemic has prompted rapid and radical change in how we deliver health and care services in Scotland. On the 17th of March last year, NHS Scotland was placed on an emergency footing to enable our services to cope with potential demand levels from COVID-19 cases. Our NHS Boards were asked to suspend all non-urgent elective treatment which has affected referral and treatment pathways since then. Our national screening programmes were temporarily suspended. Urgent care, cancer care, mental health, maternity and paediatrics services were maintained throughout. Since the implementation of **Re-mobilise, Recover, Re-design: The Framework for NHS Scotland** in May, our Health Boards have started to gradually and safely restart services. Activity rates across most specialities have increased since April-May, but have not yet returned to pre-pandemic levels.³¹

In terms of indirect impacts on our health, a sizeable proportion of the excess deaths in Scotland during the COVID-19 pandemic have not been coded as being directly due to COVID-19. This amounts to about one-fifth of excess deaths in weeks 12 to 25.³² This finding may be supported by various hypotheses about non-COVID-19 excess mortality, including undiagnosed COVID-19, reduced use of health services by those that would have benefited from them, and unintended consequences of measures taken to control the spread of the virus.³²⁻³³

Throughout the pandemic we have been concerned that people with symptoms and conditions unrelated to COVID-19 requiring urgent attention, such as those associated with strokes and heart attacks, have not sought our help. There are also concerns that pauses in national screening programmes might cause delayed or missed diagnoses of cancer. There were substantially fewer referrals for outpatient appointments and mental health services between April and June.³³ The longer-term impact of delayed or missed diagnoses or treatment is yet to be determined.

Despite our considerable efforts to persuade people who need medical attention to access services, there appears to be hesitancy from a portion of the general public to seek non-COVID-19 healthcare treatment. Evidence suggests that since the end of October to present, between 24-33% of the general public surveyed 'agreed' or 'strongly agreed' that they would avoid contacting a GP practice at the moment, even if they had an immediate medical concern.³³ This is also reflected in the ongoing lower use of services than we would expect in, for example, relation to cancer services.³¹ The 'NHS is Open' campaign which was launched in April aimed to encourage people not to delay seeking medical advice when required. There must be a continued, consistent and concerted effort to keep reminding people that primary care and hospitals are open and urgent care remains available.

Societal Impacts

The COVID-19 pandemic has had a major impact on our health, economy and society, with damaging impacts on our way of life and wellbeing. **Scotland's Wellbeing: The Impact of COVID-19**, brings together evidence on the ways that the pandemic has affected Scotland's progress towards our National Outcomes, which are set out in our **National Performance Framework**.³⁴

There has been significant disruption to the delivery of education and to the social lives of our children and young people.³⁴ Intensive efforts will continue to be required to mitigate against longer-run negative impacts for children and young people, whilst keeping the spread of the COVID-19 virus to a minimum. It will not be easy, and we will need to continue to make some difficult decisions in an attempt to get the balance right.

Isolation and loneliness in particular continue to have profound impacts on individuals and communities. Figure 5 shows that a large proportion of our population continue to experience high levels of loneliness, even when restrictions on socialising have been eased slightly.³⁵ Current levels of loneliness (54%) are substantially higher than the benchmark figure of 21% pre-COVID-19 obtained from the 2018 Scottish Household Survey.³⁶

Loneliness

More than half of people report feeling lonely.

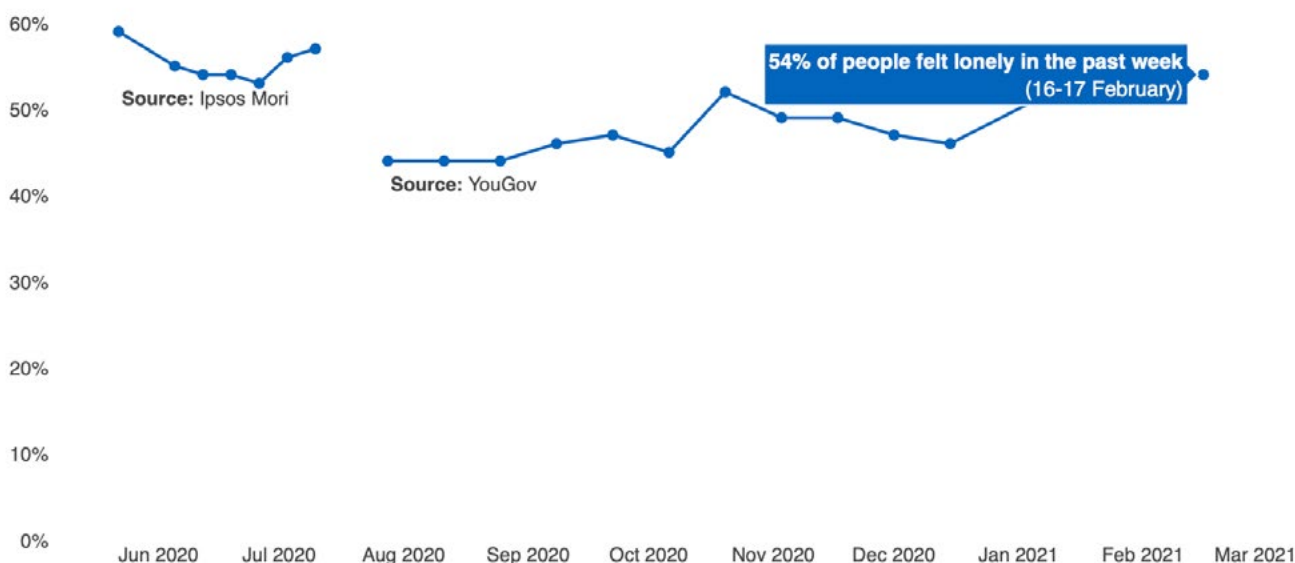


Figure 5 - Levels of loneliness Source: Scottish Government, using data from Ipsos MORI and YouGov

Economic Impacts

COVID-19 and the restrictions needed to contain it have had deeply negative impacts on our economy, fair work and business outcomes. Many people have been made redundant, furloughed or have had their working hours or wages cut. This has resulted in unprecedented levels of financial distress and hardship particularly for those experiencing socio-economic disadvantage. There has been an increased uptake of **Scottish Welfare Fund crisis grants** and a doubling of the number of people claiming out of work benefits.³⁷ While these safety nets will be a lifeline for many, we know that the rise in unemployment is likely to have a negative impact on our population's health in the long term.

Inequalities in COVID-19 Impacts

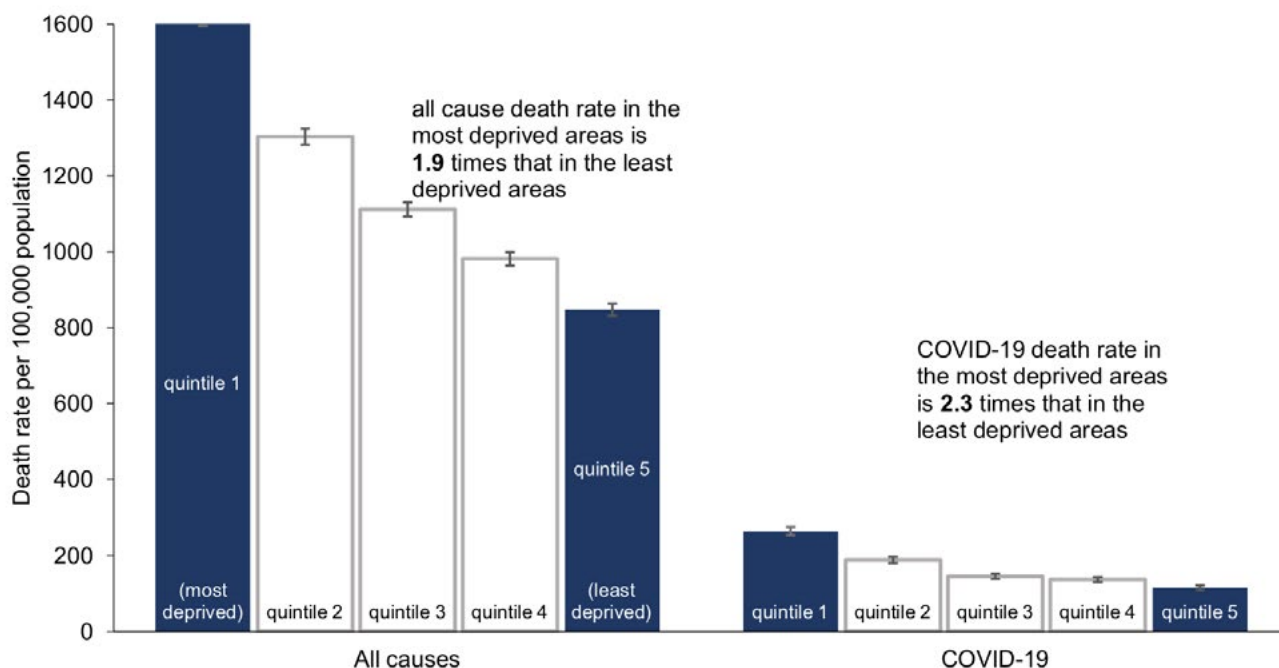


Figure 6- Age-standardised death rates by SIMD quintile between 1st March 2020 and 31st January 2021

The direct and indirect mortality impact of COVID-19 has not affected all of us equally. The direct impact has been substantially higher for older people, for those with pre-existing medical conditions, and amongst those who are obese.³⁸ There are also systematic differences in COVID-19 impacts across our population. Those living in the most deprived 20% of areas were on average more than twice as likely to die from COVID-19 than those living in the least deprived 20% of areas. COVID-19 has widened the health inequalities gap even further (Figure 6).³⁹ Among black and minority ethnic groups it has been found that those reporting either South Asian or Chinese ethnicity had substantially higher mortality rates than those reporting White ethnicity, even after adjusting for other factors.⁴⁰

The indirect impacts of COVID-19 and the measures to control it are still emerging. Children, young people and young adults are likely to have been disproportionately impacted by disruption to education and loss of employment in the hospitality sector.⁴¹ Some groups (including people who were shielding, people living alone, and single parents) have experienced more marked social isolation.⁴¹ The economic impacts and associated unemployment, underemployment and income loss have been most profound for people in lower-skilled and lower-paid jobs, and those working in certain sectors such as tourism and hospitality.⁴¹

Prior to the pandemic, there were already marked inequalities across many domains in our society, including income, wealth, living standards, labour market participation, health, education and life chances (chances of achieving positive outcomes and avoiding negative outcomes throughout the course of our life). Emerging evidence suggests that COVID-19 has exacerbated many pre-existing inequalities and exposed the vulnerability of some of our population to adverse shocks.⁴¹

CONCLUSION

The COVID-19 pandemic will have very significant and potentially long-lasting health impacts, arising from both the direct and indirect effects of contracting the illness and the interventions put in place to control spread of the virus.

It is also clear from emerging evidence that the impacts of the COVID-19 pandemic are large and unequal. The negative effects of the pandemic are borne disproportionately by people who already have fewer resources and poorer health. Action is needed, now more than ever, to address the health inequalities that exist in our society. Recovery and renewal of our public services, in the wake of the pandemic, could provide us with an opportunity to have a renewed focus on supporting our most vulnerable and disadvantaged communities.

Successfully reducing the health inequalities that exist in Scotland cannot be achieved by our health and care system alone. Addressing the wide range of issues identified in this chapter will require a significant whole system response. I will explore this further in the chapter on reducing health inequalities, where I set out some of the work that is being led by the Scottish Government, Health Boards and Local Authorities to reduce health inequalities. This is work which will undoubtedly help inform our long-term approach to making Scotland a fairer place to live.

DELIVERING PERSONALISED CARE



DELIVERING PERSONALISED CARE



The COVID-19 pandemic has created a fresh set of challenges across our health and care system. We have had to rethink and transform our current services to allow us to continue to deliver safe, effective and personalised care in the most difficult circumstances. We have also had to innovate our practice in response to evolving knowledge of the virus and the disease it causes.

The pandemic has allowed the principles of **Realistic Medicine** to come to the fore. Since its start, I have been struck by the sheer number of professionals advocating for the practise of Realistic Medicine, now more than ever. This view was further reinforced through a series of engagement workshops held in December. Here, people reiterated that continuing to build a personalised approach to care through shared decision-making is the key to delivering care that people really value. This approach also reduces harm and waste.



A PERSONALISED APPROACH TO CARE

Delivering personalised care is a priority for NHS Scotland and the Scottish Government.⁴² During 2020, we were confronted with the need to accelerate our practice as we learned more about the COVID-19 virus, and reconfigured our health and care services for a very different context. Collaborative working with, and between, experts equipped us with the knowledge to refine our approaches. Most importantly, listening to patients, and those close to them, has really helped us understand what matters to them. It has ensured that we continue to deliver the careful and kind care we discussed in **Personalising Realistic Medicine**.

Shielding

The **Scottish Government's shielding programme** was introduced in mid-March and advised shielding of those at highest risk of developing serious illness if they contracted the COVID-19 virus. Those who were shielding were given support, including free grocery boxes, home delivery of medication, and priority access to supermarket home delivery slots. By listening to those who were shielding, it became clear that isolation was having a major impact on the mental health of many people, and a more person-centred approach was needed.⁴³

In **Shielding: A Way Forward for Scotland** we set out a new approach to shielding. In line with Realistic Medicine, our aim is for people who are shielding to be able to make informed decisions that allow them to reduce their risk of catching COVID-19, while minimising the adverse impact of shielding on their wellbeing. This new approach supports people to understand their clinical risk and the risk associated with day-to-day activities, as well as the steps they can take to mitigate risk. We provided information, advice and tools to support people to make informed choices about how to stay safe, and protect themselves mentally and physically. The information found **here** can also be of benefit to others who are at higher risk from COVID-19 due to age or pre-existing health conditions.

As professionals in health and care, it is important that we explore the wider factors that influence people's health to ensure we can fully support their wellbeing. We should personalise our approach to care by finding out what matters to our patients, not just in terms of the medical decision in hand, but to support them to thrive as individuals. This is vitally important at present as people's circumstances may have changed dramatically as a result of the pandemic.



SHARED DECISION MAKING

Decision-making and Consent: GMC Guidance

Shared decision-making and informed consent are fundamental to good practice.⁴⁴ Serious harm can result if we don't listen to the people we care for, and if they are not given the information and support they need to make informed decisions about their care. We must also support people to have the knowledge, confidence and skills to cope with the complex demands of our modern health and care system. We have worked closely with the General Medical Council (GMC) over the last couple of years to help develop and promote new guidance on decision-making and consent. It aims to support meaningful conversations with the people we care for. The guidance will help to ensure that people are active partners in their care, and value the care we provide.

The updated GMC guidance **Decision Making and Consent** was launched in September. It focuses on delivering personalised care and firmly aligns with the principles of Realistic Medicine, including:

- finding out what matters to people, so we can share relevant information in the most effective way;
- the importance of taking a proportionate approach – good decision making needn't always be formal, or time consuming; and,
- suggestions for how other members of the healthcare team can support decision-making.

Many of us are already working hard to support and empower people to make informed decisions about their care. However, the publication of the GMC's guidance during the pandemic has been timely. It reinforces the importance of personalising the care we provide. I firmly believe that it provides us all with an opportunity to reflect on the way we interact with the people we care for. NHS Education for Scotland (NES) has produced an **online module** to aid shared decision-making, and I encourage you all to complete it.

Ensuring Shared Understanding

Health literacy has been vital during the pandemic to ensure public safety. Our knowledge of COVID-19 has evolved at speed. We have had to ensure that guidance is clear, concise and accessible so that the people of Scotland understand the situation and what is being asked of them.

Many people living with complex health conditions continue to be cared for remotely. It is, therefore, essential that we provide advice that's easily understood so that people feel empowered to be able to self-manage where appropriate. As we continue to encourage supported self-management, I ask that you consider whether there is more you can do in your daily practice to make health information and services more accessible to the people we care for.

In March, the Scottish Government produced resources on **health literacy techniques** for the Royal College of General Practitioners (RCGP). In addition, the **Health Literacy Place** also contains information on tools and techniques to support shared decision-making and understanding.

Open and Honest Discussions About Care: Anticipatory Care Planning

Anticipatory Care Planning (ACP) has long been an important way of delivering personalised care.⁴⁵⁻⁴⁶ It is vital to truly understand what matters to people, should they become too unwell to express their wishes. By encouraging meaningful conversations with the people we care for, and those closest to them, we can record their wishes in their anticipatory care plan. We must continue to conduct our ACP conversations in a sensitive and respectful manner, recognising that for some people, they are not easy conversations to have.

The COVID-19 pandemic has changed the way we hold these conversations. Restrictions have necessitated a different approach. What should ideally be a face-to-face conversation has to take place by video link or by telephone. To ensure we remain able to have meaningful conversations, we have collaborated with colleagues from across healthcare, including NHS Healthcare Improvement Scotland, NHS Inform, the Royal College of General Practitioners and the British Medical Association, to develop some excellent support materials, including **Making a plan for your care during the COVID-19 pandemic**.

This video, by Dr Paul Baughan, a GP in Forth Valley and National Clinical Lead within Healthcare Improvement Scotland, explains the importance of care planning conversations for those most vulnerable to COVID-19. I ask that you share this video with patients and colleagues as it demonstrates the importance of these discussions not only in the current context, but in our daily practice when making sure we provide a personalised approach to care.



Treatment Escalation Plans

Modern medicine has many successes. From biologic drugs, to stenting and organ transplantation, these medical successes energise us and grab headlines. We know too, however, that medical progress has limitations and, in some cases, can cause harm. Treatments that save the lives of some may be futile, burdensome and distressing for others.⁴⁷⁻⁴⁸ There are a growing number of people in Scotland living with multiple, complex and fluctuating health conditions for whom personalised, **careful and kind care** is vital. All elements of an emergency admission cannot be planned for, and although many people may have an anticipatory care plan, it may not help when faced with decisions about interventions in hospital. That is why many of our NHS Boards have implemented Treatment Escalation Plans (**TEP**) or Recommended Summary Plans for Emergency Care and Treatment (**ReSPECT**) during the pandemic.

Realistic Acute Medical Care: The Role of Treatment Escalation Plans

TEPs have been introduced across Scotland including Fife, Greater Glasgow and Clyde, and Lanarkshire.

The groundwork is critical. We must consider the context of a patient's illness and the consequences of intervention - combined with good understanding of the patient's values and preferences. Identifying non-beneficial, potentially harmful treatments is in everyone's interests. The aim is to establish agreed Goals of Treatment - to cure, or repair, or palliate - and outline what would, or would not, be appropriate if the patient deteriorates at a later stage. The TEP is a communication tool that supports good out-of-hours care. Without a Plan, on-call staff often resort to default interventions which can be the wrong thing to do.

Locally, in NHS Lanarkshire, uptake has been close to 100%. Ultimately, the contents of TEPs reflect the clinical decision-making of their authors: are they realistic?

The aims of a Treatment Escalation Plan:

- To fulfil the treatment preferences of a patient and/or their family.
- To reduce uncertainty by providing information about, as well as appropriate limitations to, interventions which are likely to be futile and burdensome.
- To minimise harms due to overtreatment or undertreatment.
- To improve management of acute episodes of deterioration in long-term conditions or at end-of-life.
- To provide continuity of care and good communication.
- To reduce moral distress among staff.

There is good evidence which demonstrates the benefits of TEPs.⁴⁹⁻⁵² Their development and roll out across NHS Boards is Realistic Medicine in action. TEPs have come about through determined local clinician-led action. This involved learning from good practice elsewhere and adapting it to suit local contexts. It's precisely the kind of clinical leadership required to deliver the personalised care we wish to see.



MANAGE RISK BETTER

Decisions about care are not always clear cut. It is important that the people we care for are equal partners in decisions about their care, and we provide them with balanced information on benefits and risks which enables them to make an informed choice. Over the last year we have had to manage risk, and make difficult decisions about care when there were many unknowns, yet we have still achieved excellence in care.

Zak's Story: Kidney Transplant during a Pandemic

End-stage kidney disease is rare in childhood.⁵³ Around 8-10 kidney transplants are performed in children in Scotland each year, at the Royal Hospital for Children, Glasgow. At the start of the pandemic, there were huge uncertainties, and difficult decisions had to be made. After careful consideration, the transplant list was kept open for children at high risk, and planned transplants for children at lower risk were postponed. Most transplant centres in the UK closed completely, which led to Scotland receiving many more kidney offers than usual and enabled successful transplantation of all high-risk children. When it became clear that there was a lower risk of serious illness from COVID-19 in children, the transplant centre began to carry out transplants for all children. By the end of August, every child on the waiting list in Scotland was successfully transplanted. The transplant list was empty for the first time in more than 20 years.

In this video, Zak talks about his experience and explains why receiving a kidney transplant during the pandemic was so important to him.



Managing Risk - Making Medication Personal

The typical over 70-year-old is living with at least three long-term conditions and is likely to be on multiple medications as a result.⁵⁴ Older people often express that what matters most to them are relationships and their autonomy. How might what's important to us impact on the treatment we choose? Might we want fewer interventions, more time at home with family, or to maintain our independence?

iSIMPATHY: Making Medication Personal

iSIMPATHY, (implementing Stimulating Innovation in the Management of Polypharmacy and Adherence Through the Years) which launched in November, aims to tackle the harms associated with polypharmacy. Realistic Medicine underpins this project. Polypharmacy medicine reviews will ensure that people receive a personalised assessment of their medication and allow us to share prescribing decisions with them. By finding out what matters to our patients, we will ensure that they receive the treatment which suits their individual needs. Polypharmacy reviews reduce harm and waste by assessing for side effects of treatment, monitoring for drug interactions and reviewing adherence.⁵⁵⁻⁵⁶ By 2023, iSIMPATHY aims to optimise use of medicines through polypharmacy medicine reviews for 6,000 people in Scotland, and deliver training to GPs, hospital doctors and pharmacists.⁵⁷

7 STEPS TO APPROPRIATE POLYPHARMACY



We need to be honest about the limitations of many of our treatments. As we get older, we are prescribed more medicines, but are less likely to take them as prescribed. In those who take four or more medicines, 50% don't take them as prescribed.⁵⁷ While medicines can bring great benefit, they can also cause significant harm. Older people tend to experience worse side effects or consequences of treatment.⁵⁷ This is why we should strive to actively manage risk associated with polypharmacy by regularly reviewing and rationalising our patient's medications.



BECOME IMPROVERS AND INNOVATORS

We have worked in the most challenging circumstances during the pandemic, often under significant pressure and with limited resources. Nevertheless, during these difficult and uncertain times, I've seen both professional colleagues and the public embrace change. We must continue to learn from this experience, innovate, and strive to improve the treatments and care we provide.

Research during the pandemic

As well as caring for people with COVID-19, our workforce has supported vital research which has been a crucial part of our pandemic response. Our successes in COVID-19 research are world-leading and have been achieved through collaborative working across the UK.⁵⁸⁻⁶¹

Over 100 COVID-19 studies have been delivered across Scotland since March, involving over 66,000 participants. This is an outstanding accomplishment, and I am very proud of how our research community responded when tasked. Research has encompassed drug and vaccine trials, the testing of new diagnostics, and clinical and observational studies.⁵⁸⁻⁶¹ Involvement in research during this time has been challenging. I want to express my gratitude to our Health Boards and research community for their continued efforts, and importantly to thank the people who participated in these studies.



Staff supporting the RAPID-19 (COVID Warrior Study) at RHC, Glasgow

We must build on this momentum for change, continue to innovate and invest in research to advance our knowledge and practices.

Near Me

Embracing technology has allowed us to continue to deliver care when we couldn't see people in person. As part of our response to the COVID-19 pandemic, **Near Me**, a video consulting service, has been made available in almost every hospital and GP practice in Scotland. It's transforming the way people are accessing health and care services. Prior to March, there were around 300 Near Me consultations a week. By June, it was nearly 17,000 a week, and by January, over 22,000 a week were taking place. There may have been some early hesitancy to make the change to video consultations, but the pandemic has made us realise its full potential.

Near Me has supported physical distancing by reducing the number of people attending services in person. It supports personalised care by enabling people to attend appointments from their own home and allows someone to join the video call with them, even from abroad. Moreover, Near Me reduces the need for time off work or study, and contributes to a significant reduction in miles travelled, delivering greener healthcare. Near Me is helping us deliver the **careful and kind care** that Victor Montori spoke about in our last annual report. The range of services now provided by Near Me is extensive. It is used everywhere from addiction services to wheelchair servicing. People's experience of Near Me has generally been very positive as it offers choice in how they wish to access services. The continuous improvement of the service is underpinned by comprehensive public engagement.

"It was more efficient because I wasn't exhausted from the journey, my mind was fully engaged. The dialogue itself was far more constructive."

"Less stress as not worrying about getting to appointment on time with traffic and parking issues."

"Face to face via video is better than face to face with masks on."

"This is perfect for me as I live 81 miles away from the hospital."

Helping People Choose Wisely

As consultations increasingly move online, we have embedded the **Choosing Wisely** BRAN questions (Benefits, Risks, Alternatives, Nothing) into the Near Me virtual waiting room. Many NHS Boards are also including the BRAN questions on appointment letters. By encouraging people to ask the BRAN questions, we empower them to be active partners in decisions about their care, and support them to make an informed choice.

The speed at which Near Me has been adopted brings me great hope for the future. It is a fantastic example of Realistic Medicine in practice, demonstrating that improvement and innovation can support delivery of more personalised care.

While our ability to harness this technology has been impressive, we can do more to realise its full potential. Although virtual consultations do not suit everyone, we need to make greater use of **Near Me** for supported self-management, to involve the wider healthcare team in multidisciplinary discussions about patient care, to facilitate patient support groups, and for continued professional development of health and care professionals. We should also consider how we can make use of further technologies to bring care closer to home, such as devices for remote monitoring.



REDUCING HARM AND WASTE

Over the last year we've had to strike a balance between lifting restrictions, safely re-mobilising healthcare services and maintaining vigilance against an increase in virus transmission. Saving lives has been our priority and some healthcare services were scaled back to minimise the immediate risk of harm. This has had significant consequences. Non-urgent care was initially halted, impacting on outpatient appointments and waiting times. As I've mentioned already, people have also been reluctant to access health services. Despite national campaigns to encourage people to seek medical attention when they need it, I remain concerned that many people have chosen to stay away.³³

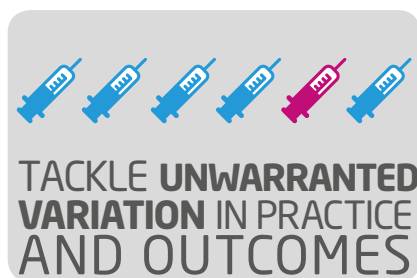
The COVID-19 pandemic has impacted on the delivery of routine health services for longer than anticipated. Once routine problems now have greater urgency. We need to review our approach to the organisation and delivery of care as the demands on the health service continue to rise and show no sign of retreat. By practising shared decision-making and delivering a more personalised approach to care, we can assist people to make an informed choice about the care that is right for them, early in their treatment journey. In turn, this will allow us to utilise our services more effectively and efficiently, help ensure timely initiation of treatment, and reduce harm and waste. This is in keeping with our long-term strategic view that services should reflect people's needs rather than the needs of our services.⁴² That is why Realistic Medicine is a key enabler of our **Clinical Prioritisation** and **NHS Remobilisation Frameworks**. It will help ensure that those who need our help the most, receive care that they value, when they need it.

Transforming our Outpatient Services: Modernising Patient Pathways Programme (MPPP)

Our outpatient pathways are being redesigned across Scotland. By adopting the principles of the MPPP we can make sure that the optimal pathway is chosen at the first point of contact. **Active Clinical Referral Triage (ACRT)** has the potential to reduce waiting times by eliminating unnecessary face to face appointments. For example, people frequently wait for long periods before receiving an appointment, when the information they need can be readily provided by other means - a letter, by phone, video or website. Discharge Patient-Initiated Review (PIR) encourages patient autonomy and helps to avoid unwarranted use of our clinical resources, as well as our patients' valuable time, by avoiding routine "check-ups", either following an intervention or for a long-term condition. These appointments often add little value as there is no alteration in management. Discharge PIR empowers people with the information they need to self-care and provides advice on what symptoms should prompt re-engagement with services, with easy access to initiate review. It is helping to ensure we personalise our approach to the needs of our patients, while making better, more targeted use of our healthcare resources.

Patient Journey

"I received correspondence from the hospital explaining a new way of managing my knee arthritis following the GP referral. A booklet was provided explaining the benefits and risk of the options available to me, and how-to self-care including exercises. It was reassuring that I could contact the Unit at any time for further discussion, especially if I wanted to be considered for surgery. After 2 years I was reviewed virtually (without going through my GP) and we agreed that there was no need for further review, but I could contact the Unit if and when I needed further advice."



TACKLE UNWARRANTED VARIATION IN PRACTICE AND OUTCOMES

The pandemic has highlighted the importance of a collaborative approach which utilises combined experience and knowledge to achieve the best outcomes for our people. This approach also reduces variation in practice and outcomes, especially when faced with novel or complex challenges. Now we need to consider how we can use this experience and work together to tackle other urgent issues in health and care.

EQuIP (Effective and Quality Interventions and Pathways)

EQuIP is helping us to identify unwarranted variation in practice and outcomes. The programme aims to optimise clinical pathways for procedures when the evidence base suggests they are of lesser value at a population level, while recognising that they may still be of value at an individual level. Pathways have been piloted in NHS Greater Glasgow and Clyde, resulting in a large number of patients who have received more appropriate, higher value care:

- Minor skin lesions - 160 new outpatient referrals per month where patients were given advice on benign (non-cancerous) skin lesions, avoiding the need to attend unnecessary appointments;
- Minimally symptomatic inguinal hernia - 80 new outpatient referrals per month. Patients were given advice and the option to opt-in to an appointment for inguinal hernia;
- Uncomplicated varicose veins - 80 new outpatient referrals per month where patients received advice for varicose veins rather than attend an outpatient appointment.

Long COVID

While the majority of people recover quickly from COVID-19, it is clear that a significant number of people continue to experience longer-term symptoms many weeks or months after infection. The experiences of people living with long COVID demonstrate that it affects each person differently and symptoms can fluctuate, underlining the importance of care that is personalised to the individual. As we are learning more about this emerging condition, it is important that we listen to and validate people's experiences, and are alert to symptoms that may require referral for specialist investigation.²⁶ The Scottish Intercollegiate Guidelines Network (SIGN) has worked with partners across the UK to develop an **evidence based clinical guideline**. This guideline will assist us in tackling unwarranted variation in practice and outcomes, and will be reviewed and updated in response to emerging evidence.

CONCLUSION

Practising Realistic Medicine has never been more important. If we wish people to value the care we provide and the way we provide it, we must take time to understand what is going on in people's lives, empower them to be active partners in their care and be mindful of the impact our practice has on the people we care for. We must continue to embrace technology and innovate to build services that meet people's needs, not the needs of our system.

Considerations

- What have we learned from our pandemic experiences that will strengthen our approach to delivering personalised care?
- How can we work more collaboratively across professional and organisational boundaries to provide better care for the people we care for - especially for those living with complex conditions?
- How can we use the learning from improvement programmes to streamline our care pathways and ensure people receive the right care at the right time?
- Can we reduce harm and waste by considering whether a treatment or an investigation is going to add value to the care we provide our patients?

REDUCING HEALTH INEQUALITIES



REDUCING HEALTH INEQUALITIES



In December, Professor Sir Michael Marmot published **Build Back Fairer**: his review on how the pandemic has affected health inequalities in England. His report highlights that:

- the pre-existing socio-economic inequalities in our society led to the disproportionately high number of deaths from COVID-19 in our disadvantaged communities;
- as we recover from the pandemic our nation’s health must be the government’s top priority;
- strong links exist between the economy and population health; it is, therefore, important that we create a more sustainable economy as we recover from the pandemic;
- to reduce health inequalities and build back fairer from the pandemic, multi-sector action from all levels of government is needed and we must create long-term policies which support equity;
- investment in public health is vital to mitigate the impact of the pandemic on health and health inequalities.

It is a comprehensive and sobering report and all of the above points apply equally here in Scotland.⁶² We urgently need to address our health inequalities here in Scotland, which are the worst in western and central Europe.⁶³ The difference in life expectancy between the most and least deprived ten percent of areas in Scotland is alarming - approximately 10 years for females and 13 years for males.⁶⁴ Our premature mortality rates have worsened in our most disadvantaged communities, and inequalities in premature mortality have increased since 2012.¹

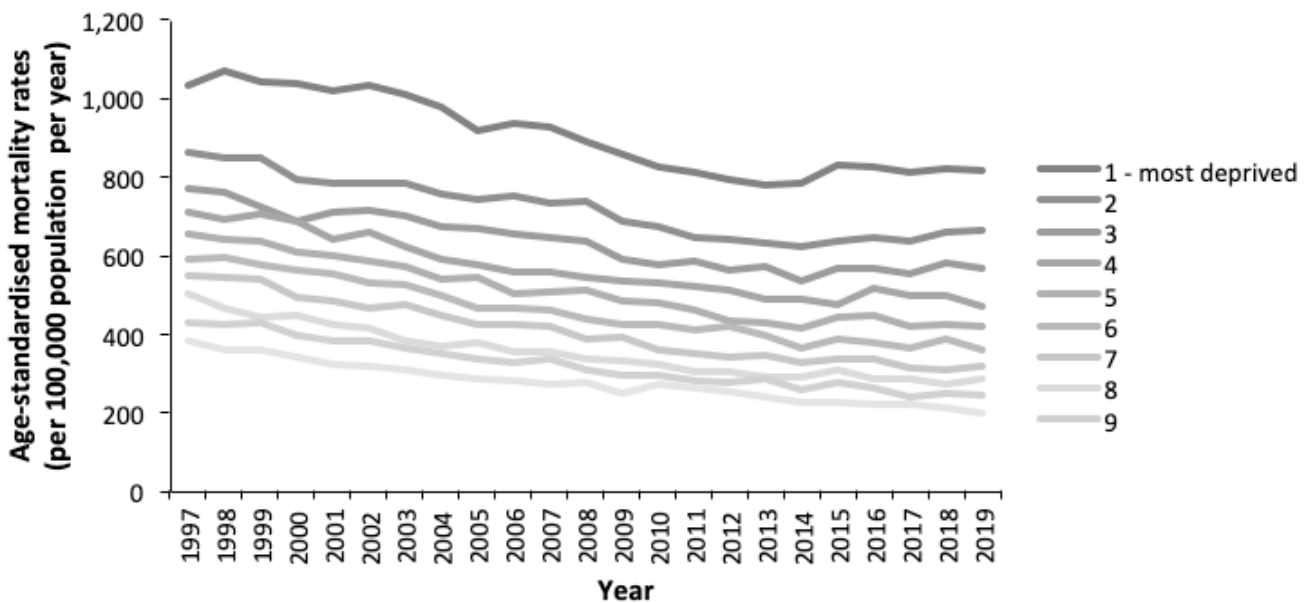


Figure 1 - Trends in mortality rates aged under 75 years by income-employment deprivation deciles, Scotland, 1997-2019 (Source: SG long-term monitoring of health inequalities, 2021¹)

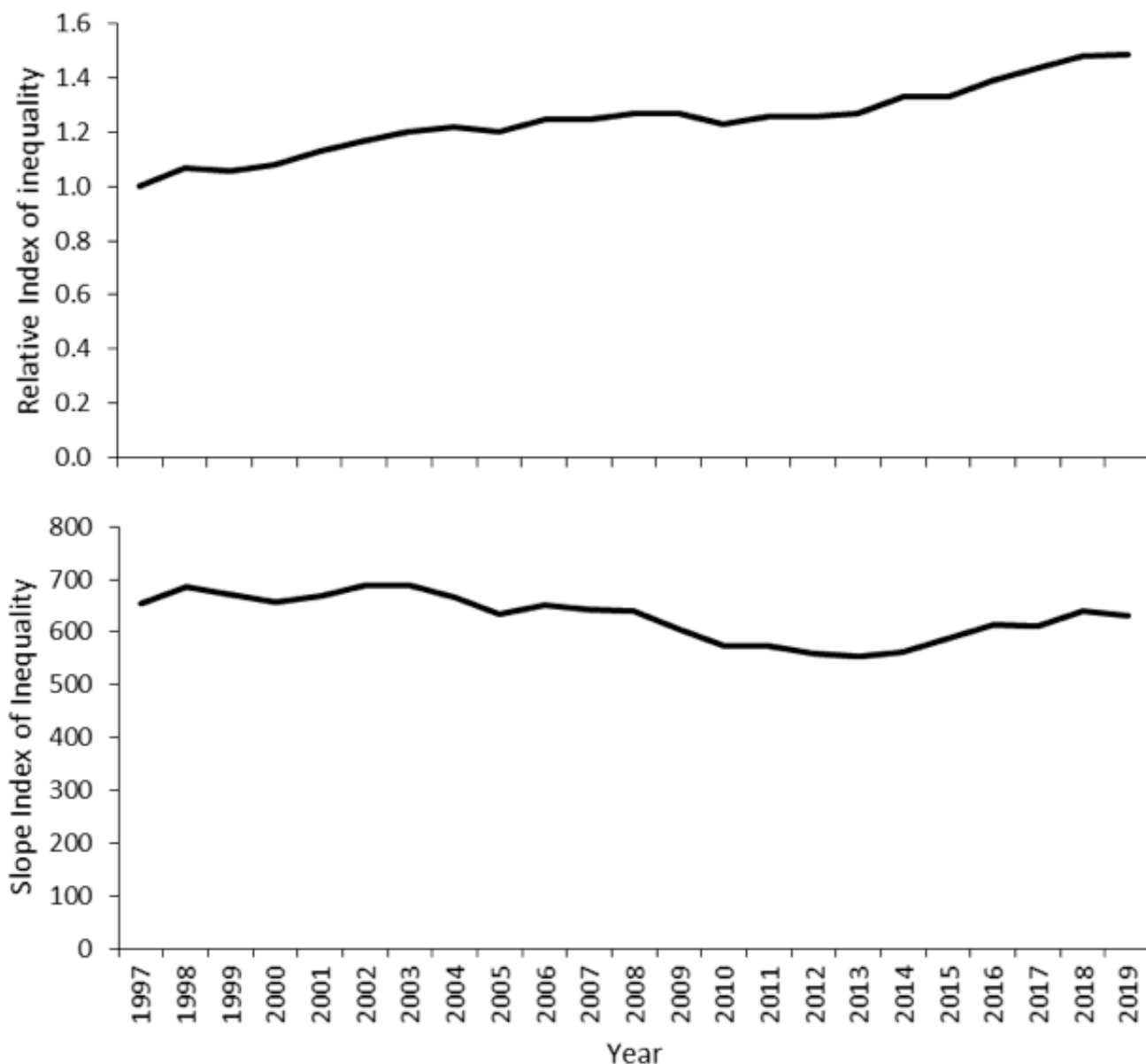


Figure 2 - Trends in mortality rates aged under 75 years by income-employment deprivation deciles, Scotland, 1997-2019 (Source: SG long-term monitoring of health inequalities, 2021¹)

The widening inequalities shown in Figures 1 and 2 predate the pandemic. The direct and indirect impacts of the COVID-19 pandemic are known to have exacerbated these underlying trends.³⁹

Although the health of individuals is influenced by genetics and health behaviours, at population level we know that the wider determinants of health such as economic, social and environmental factors are much more important.⁶⁵ Although most routine data highlight inequalities by area deprivation, inequalities are also marked when looked at by individual socioeconomic position and for particular disadvantaged groups, such as people who are care experienced, people experiencing homelessness, the Gypsy/Traveller community, and some minority ethnic communities.⁶⁶⁻⁶⁹

Inequalities in health are not inevitable, but do exist and are preventing people from living longer, healthier lives.^{63,70} These inequalities cannot be resolved by providing good healthcare alone, and are largely determined by circumstances beyond an individual's control.⁶⁵

Social Renewal Advisory Board

The **Social Renewal Advisory Board** was set up by Scottish Ministers to make proposals that can renew Scotland once we start to emerge from the pandemic. Its final report **"If not now, when?"** was published on the 21st of January, and proposes a course towards our future. The Board focused on three key principles:

- **Money and Work:** everyone should have a universal basic level of income from employment and social security.
- **People, Rights and Advancing Equality:** everyone should have equal basic rights, and access to goods and services.
- **Communities and Collective Endeavour:** we must work collaboratively to make our society fairer, by devolving more power to our people and communities.

The Scottish Government's Programme for Government (PfG) 2020-21, **Protecting Scotland Renewing Scotland** published in September, commits Scottish Ministers to take forward a range of proposals presented by the Social Renewal Advisory Board. You can learn more about the Scottish Government's response to the Board's recommendations [here](#).

Build Back Fairer and **"If not now, when?"** bring to the fore the potential causes of inequalities and what we might do about them. Whilst the wider social determinants of health, such as sustainable employment, access to education, nutritious food, and good quality housing have the greatest impact on health inequalities, there is often a view that our ability as health and care professionals to influence these determinants is limited.⁶⁵ I am concerned that unless we act now the consequences of our inaction will be felt for decades to come.^{23,41,71} If we wish to understand the lives of, and provide better care for the people who need our help the most, it is important that we fully understand the root cause of these inequalities.

As a GP, I saw the devastating effects of these inequalities on health and families play out before me, and like many people in Scotland I have experienced them first hand in my family. As advocates for those whose voice is often harder to hear, we have a moral responsibility as clinicians to promote agency and act for them when necessary.

ECONOMIC FACTORS AND INEQUALITIES

Economic factors are the biggest determinants of population health, and poverty is expected to rise as a result of the COVID-19 pandemic.^{39,72} There is an opportunity to develop an economy, as we come through the pandemic, that supports wellbeing, equity and sustainability. This will be crucial to improve health and reduce health inequalities in the future.

The COVID-19 pandemic has led to considerable worry about household food security. A survey by Food Standards Scotland in May found that 25% of people were either 'very worried' or 'somewhat worried' about their household not being able to afford food in the next month. Food banks and other food aid organisations also reported considerable increases in demand for their support as people experienced increased financial difficulties at this time.⁷³

Measures taken to control viral spread during the pandemic have meant that many businesses and organisations were forced to temporarily close, or significantly adapt their ways of working. Unemployment is correlated with increased risk of poor physical and mental health, and an increase in the prevalence of health-harming behaviours.⁷⁴ Employability support is crucial in Scotland's economic recovery from the COVID-19 pandemic.

Financial difficulties can have a major impact on both physical and mental health. Welfare Advice and Health Partnerships have an important role to play in supporting people with financial concerns, and this [video](#) highlights how we, as professionals in health and care can help.

What matters to you? “Money to feed my children and heat my home”

Welfare Advice and Health Partnerships (WAHP) are a public health response to better support the wellbeing of people experiencing disadvantage. Developed in primary care, WAHP are embedded in over 100 GP practices across Scotland, mainly in our most disadvantaged communities. They provide people with expert and regulated social welfare legal advice. This includes support with income maximisation, welfare benefits, debt resolution, housing problems and employability support as well as representation at tribunals. They also link patients into other sources of support, if appropriate. The people they provide support for experience significant poverty and deprivation. For example a study of WAHP in 17 GP practices in Glasgow found that 53% of patients had a household income of less than £10,000 per annum, with 20% of those surviving on a household income of less than £6,000 per annum. Amongst the 654 people supported in the pilot, a total of £1.5 million in additional income was gained. WAHP empower GPs to ask patients ‘what matters to you?’ in the knowledge that any social or economic concerns can be dealt with by an expert in the practice which for many is a non-stigmatising and familiar environment. A GP recently said:

“Patients often present with stress and when you scratch the surface money is a big cause. I feel strongly that in deprived areas patients struggle with the idea of going somewhere unknown due to anxiety, transport issues, fear of the unfamiliar and this results in them not accessing health and social care services. GP practices are still one of the few places that they are prepared to go”.

Everyone deserves the same start in life, and we must endeavour to support every child to thrive.⁷⁵ Significantly, more families are relying on benefits due to the pandemic, some perhaps for the first time.⁷⁶ We know that socio-economic disadvantage and child poverty are much greater in some areas than others. Scotland has ambitious income-based targets toward the eradication of child poverty set in statute through the **Tackling Child Poverty Delivery Plan**, but there is much more to do. Every child has the right to an education, to enable them to develop to their full potential.⁷⁵ We need to work towards reducing the attainment gap in education. The impacts on children due to reduced face to face learning during the pandemic also needs to be addressed, with a particular focus on children from disadvantaged backgrounds.⁷⁷

Access to sanitary products is a basic health requirement but products are expensive, which can act as a barrier to access for some women and girls, resulting in significant emotional stress and reduced participation in society.⁷⁸ **The Period Products (Free Provision) (Scotland) Act 2021**, which was passed by the Scottish Parliament on 24th November and gained Royal Assent on 12th January, is a historic piece of legislation which ensures free period products are widely available. The Act is an excellent example of legislation that will help to tackle health inequalities.

MARGINALISATION AND INEQUALITIES

People at the margins of our society experience greater inequalities and lower life expectancy, such as people in or at risk of homelessness, people involved in the justice system, asylum seekers, refugees, and Gypsy/Travellers. This marginalisation can result in increased distress and use of emergency and Out-of-Hours medicine, custodial care, mental health and substance use interventions.⁷⁹

We can help people regain control by placing them at the centre of their care through shared decision-making and adopting a rights-based approach. Survivors of trauma are at higher risk of a range of health, mental health and social issues. The 'Inclusion Health' approach recognises individuals' right to health.⁷⁹ It addresses inequality by responding to the urgent challenges of increasing homelessness and drug deaths which are marked by experiences of exclusion, violence and poverty.

A national training video has been designed to support workers build a personalised approach to care and make a positive difference to people affected by such adversity. I encourage you to watch it.



Migrant and/or Undocumented Children Guidance

Many of us will be involved in the care of migrant or undocumented children during our careers and it is important we are equipped with the knowledge to provide them with the best possible care. The health needs of children seeking asylum differ greatly from those living permanently in Scotland and such families are often frightened to access services. We need to ensure we appropriately assess and safeguard this group. The Royal College of Paediatrics and Child Health has published guidance on **refugee and unaccompanied asylum-seeking children and young people**. It aims to assist us in the assessment and management of children and young people of refugee background.

ETHNICITY AND INEQUALITIES

Scotland is enriched socially, culturally and economically by the diversity of our communities. Nevertheless, inequalities remain in various aspects of life for minority ethnic communities in Scotland. Many people face poorer health outcomes due to a higher risk of poverty, lower employment rates and under-representation in our society.⁶⁹ It is important that we mitigate these inequalities. Simple measures like ensuring we use translator services and provide information leaflets in people's preferred language, or recruiting members from minority ethnic communities to help with health promotion such as awareness and uptake of cancer screening, can make a huge difference in improving the accessibility of healthcare for our minority ethnic groups.⁸⁰ The Scottish Government's approach to tackling race inequalities is outlined in the **Race Equality Action Plan**.

Ethnicity Coding

Some minority ethnic groups have been disproportionately affected by the COVID-19 pandemic and they face poorer health outcomes in general.^{40,69} This has unearthed longstanding issues with coding for ethnicity, which is a barrier to monitoring and ultimately understanding the health needs and outcomes of our minority ethnic communities. NHS Lothian has tackled this issue head on and succeeded in improving ethnic coding of hospital records from 3% to more than 90% during the pandemic.⁸¹ We must strive to improve health informatics so that we can better understand the health needs of our communities.

ADULT SOCIAL CARE AND INEQUALITIES

Governments around the world have grappled with social care issues for decades. In September, the First Minister announced an **Independent Review of Adult Social Care in Scotland**, which was chaired by Derek Feeley, a former Scottish Government Director General for Health and Social Care and Chief Executive of NHS Scotland. The review was published in February and was well received by service users and providers. It outlines Mr Feeley's recommendations on how we can support improvement in adult social care in Scotland to enable better outcomes for all. This video outlines the findings from the review and the vision for world leading social care. It is vital that we take these forward and transform services.



SOCIAL CONNECTEDNESS AND INEQUALITIES

Loneliness and Isolation

To be healthy, we need to feel included in society. Loneliness can have a big impact on health.⁸² We should support people to access programmes to help reduce isolation and loneliness within our local communities. The **Glasgow Health and Social Care Partnership (GHSCP)** has supported the Wellbeing for Longer Fund in Glasgow. Programmes include the Scottish Ballet working with people with dementia, Golden Generations supporting older people with digital inclusion, the Glen Burn Centre My Life My Choice programme offering photography, as well as a range of other physical activity and cooking programmes.

Digital Connectivity

Digital connectivity has proven to be vital for our health and wellbeing during the coronavirus pandemic, whether supporting our health service, enabling people to work and study from home, or staying connected to friends and family. Yet there remains a digital divide in Scotland which we must address if we are to support people to flourish.⁸³ We must build on the work of the **Connecting Scotland** programme and continue to invest in Scotland's digital connectivity infrastructure to help ensure that everyone in Scotland, even in rural areas, can access superfast broadband through the **Reaching 100% Programme (R100)**.

HEALTH BEHAVIOURS AND INEQUALITIES

As well as having a devastating impact on the wider determinants of health, the pandemic continues to impact on many people's health behaviours, which will not be observed equally across our society.³⁴ Smoking, alcohol consumption, poor diet and obesity are major contributory factors in the leading causes of preventable deaths in Scotland, such as cancer and diseases of the circulatory system.⁸⁴

International evidence points towards commercial determinants of health driving these consumption behaviours, and we know that these are also compounded by adverse economic and social circumstances.⁷² People living in our most economically disadvantaged communities are five times more likely to die from heart disease and twice as likely to die from cancer as people living in our least deprived areas.¹ We must do more to support people to adopt healthy behaviours to reduce preventable deaths and related health disparities in Scotland.

Smoking

Five times as many people smoke in our most disadvantaged communities compared to our most affluent.⁸⁵ Smoking prevalence also significantly exceeds the national average in other groups such as in men aged 25-54, those facing unemployment, individuals with no or limited qualifications, those with a limiting long-term physical or mental health condition, White Polish communities, LGBT+ groups, single adult and single parent households.⁸⁵ The Scottish Government's **Tobacco Control Action Plan** sets out how we will reach our goal of creating a tobacco-free generation by 2034. Actions include targeted smoking cessation support, early intervention, environmental measures and fiscal policy to reduce uptake of smoking. The smoking ban in prisons has had a significant impact on reducing smoke exposure in this high-risk population.⁸⁶

Alcohol

There is a stark health inequalities gradient to alcohol-related harm in Scotland. In 2019-2020, alcohol-related admissions to acute general hospitals were seven times higher in our most disadvantaged areas compared to the least.⁸⁷ While the Scottish Government's **Alcohol Framework** aims to encourage a change in culture around alcohol, where lower alcohol consumption moves the population closer to the recommended **14 units per week maximum**, we must be mindful that the challenges brought about by the pandemic may well encourage people to drink more. Our **Alcohol Brief Intervention** service has been expanded to our pharmacies, criminal justice settings and community services to ensure it is accessible to people from our disadvantaged communities. Minimum unit pricing has also improved health behaviours around alcohol.⁸⁸ While still far too high, notably, the number of alcohol-specific deaths is now sitting at its lowest level since 2013.⁸⁹

Obesity

The inequality gap in obesity rates is widening and has become particularly pronounced in women over recent years. In 2019, obesity prevalence was 40% in our most disadvantaged communities compared to 18% in our most affluent.⁸⁵ We now see these trends in children. We want to live in a Scotland where everyone eats well and is able to maintain a healthy weight, yet we know people living in poverty have a higher obesity prevalence which contributes to poorer health outcomes.

The Scottish Government's ambition is to halve childhood obesity by 2030, and to significantly reduce diet-related health inequalities.⁹⁰ We need to focus on measures to transform the overall environment that influences what we buy and eat. I welcome the Scottish Government's intentions to introduce legislation on restricting food promotions as soon as possible. We must also continue our work with Food Standards Scotland and Public Health Scotland to support a targeted approach to improve healthier eating for people with low incomes.⁹¹

Physical Activity

We know that regular exercise improves our physical health, boosts our immune system, enhances our mental health and supports management of our weight.⁹²⁻⁹³ As professionals in health and care we need to promote these benefits and do what we can to encourage and support people to adopt active lifestyles equally across society. During the pandemic many people have lost access to gyms and recreational sport. Fewer of us are travelling to work, resulting in a reduction in active travel. Many of us are also juggling working from home, home schooling and the challenge of trying to keep ourselves and our children active.

A series of evidence-based blogs and infographics have been created by the Physical Activity for Health Research Centre at the University of Edinburgh to motivate people to keep active during the pandemic. They are targeted at **adults and those working from home; vulnerable groups, school aged children and babies and toddlers**. These resources provide practical examples of activities that don't require specialised equipment and explain how keeping in touch with friends can help motivate you to keep active.



I would encourage us all to share these infographics on social media within our communities and utilise them to encourage people to exercise. We need to continue to promote the message that:

- something is better than nothing - even a 10-minute walk around the block can boost mood;
- there are great benefits to leaving the house for exercise at least once a day;
- for those of us who are shielding or unable to leave the house, all movement around the house is good. Lack of movement means loss of muscle strength and risk of falls for frail older adults;
- for those recovering from feeling unwell with potential COVID-19, avoid strenuous activity as you recover. Start slowly and build up activity. As things return to normal - keep activity levels up.

We must also ensure equity of opportunity to participate in physical activity. The Scottish Government's **Active Girls** programme is working to address issues around body image as a barrier to participation, and the **Football Fans in Training** programme engages men and women from our most disadvantaged communities in accessible physical activity. Moreover, Scottish Leisure Trusts such as the **Fife Sports and Leisure Trusts**, provide extensive programmes committed to provide physical activity to all, regardless of age, health or status. These programmes are delivered in local community venues allowing for better accessibility. Programmes promote improved physical and mental health, improve quality of life, help with disease prevention and increased social connectedness.

As professionals in health and care it is our responsibility to promote health and prevent disease. Conversations about health behaviours can be uncomfortable for people, and those who care for them. We need to normalise these discussions and conduct them in a sensitive manner so that people feel listened to, and adequately supported to make a change. We should also utilise expert services such as smoking cessation support and weight management services. We need to focus on prevention and early intervention. We must take action to empower communities by co-creating services with those most at-risk and implementing population wide measures to support people to adopt healthy behaviours.

DRUG-RELATED DEATHS

We are in the midst of a drug crisis, with more drug deaths per capita in Scotland than any other European country. Drug-related deaths increased by 6% in 2020, with over 1,200 deaths.⁹⁴⁻⁹⁵ These deaths continue to have a devastating impact on our communities and families across Scotland. That is why tackling drug-related harm must continue to be a priority. The impact of drug harms and drug deaths is felt far more significantly in our more deprived communities.⁹⁴⁻⁹⁵ Helping to reduce harm and the number of deaths will have a positive impact on health inequalities. People who die as a result of drug use die at a much earlier age than from alcohol or smoking. The recent increase in drug-related deaths is one of the main causes for our stall in life expectancy in Scotland, which had been increasing over recent years.¹

The rise in drug-related deaths requires substance use to be treated as a public health, rather than criminal justice issue. In response to the continuing rise in drug-related deaths the First Minister made a statement to Parliament on the 20th of January, setting out a **new national drugs mission** and five priority areas for reducing drug deaths. The First Minister also announced the appointment of a dedicated Minister for Drug Policy, and announced additional funding over the next five years. It is expected to improve drug treatment services in Scotland, providing fast and appropriate access to treatment, residential rehabilitation, and support to front-line and third sector services. We also want to introduce a range of evidence-based public health measures, such as overdose prevention facilities, and drug checking services, as well as expanding the provision of heroin assisted treatment across Scotland.

Central to the new mission is the need to increase the number of people who engage with treatment or recovery services. By working together, we will better understand what more can be done to help create a supportive culture in our communities and help shape Government policy and treatment services that people value. It is vital we continue to listen to and learn from communities and people with lived experience. The **Drug Deaths Taskforce** has developed a **Stigma Strategy** to tackle the stigma associated with substance use, which we recognise as one of the main barriers stopping people reaching out for help from services.

The Drug Deaths Taskforce recently published a **Forward Plan** outlining actions it will take over the next two years. This includes bringing in national standards for Medication Assisted Treatment (MAT), which uses licensed medications such as methadone and buprenorphine. The plan will also look to continue to improve public health surveillance to better equip us with the information needed to tackle this crisis.

The COVID-19 pandemic has accelerated the rapid implementation of a number of new and innovative approaches across Scotland, including the **Scottish Ambulance Service national programme of take-home naloxone** distribution following non-fatal overdose. We must retain and build on our successes to reduce the levels of harms associated with drug use.

DEEP END GP AND THE WIDER PRIMARY CARE TEAM: AT THE FRONT LINE OF HEALTH INEQUALITIES

“The availability of good medical care tends to vary inversely with the need for it in the population served. This inverse care law operates more completely where medical care is most exposed to market forces, and less so where such exposure is reduced. The market distribution of medical care is a primitive and historically outdated social form, and any return to it would further exaggerate the maldistribution of medical resources.”

Julian Tudor Hart⁹⁶

The impacts of the ‘inverse care law’ are felt most acutely by our most disadvantaged communities.⁹⁶ People are more likely to have multiple complex health and social problems and use unscheduled (emergency and out-of-hours) care more often.⁹⁷ These complex issues cannot be addressed in a single appointment but are best supported through relationships of trust which we can build over time.⁹⁸ It is important, therefore, that we apply Sir Michael Marmot’s principle of ‘Proportionate Universalism’ – that services are universal, but additional resources are targeted to where needs are greatest.⁹⁹

Pioneering work has been undertaken in this field by the **Deep End GP** group. There is evidence of improved patient enablement with longer consultations in very deprived areas.⁹⁸ The CARE Plus study demonstrated improvements in quality of life and wellbeing by targeted longer consultations that took an empathic, person-centred approach.⁹⁷ General Practitioners reported that the extended consultations provided them with a window of opportunity for health screening, health promotion and more in-depth assessment of medical problems in a cohort of people who might otherwise have been missed.⁹⁷ The Scottish Government funded project **Govan SHIP** built on the excellent research from CARE Plus, and implemented it in four Deep End practices in Govan.

General practice and the wider primary care team, by virtue of being embedded within communities, can play a pivotal role in mitigating the effects of health inequalities at a number of levels: through clinical care; wider patient advocacy; community engagement; and influencing the wider health agenda.

Community Link Workers are practitioners based in, or aligned to, a GP practice or cluster. They work directly with people to help them access services beyond medicine, and provide them with the support they need to improve their health and wellbeing. There remains plenty of scope for GP practices to learn from and adopt this approach.

THE GOVAN SHIP PROJECT
(Social & Health Integration Partnership)
ABOUT THE PROJECT

- 1 AIMS**
 - Adopt a person centred focus based on need and not condition or criteria
 - Develop multi-disciplinary team working and challenge embedded silo approaches
 - Identify opportunities to shift demand through better use of services
 - Create capacity for General Practitioners to increase their support for more complex patients
- 2 CORE COMPONENTS**
 - Additional GP Capacity
 - Aligned Social Work Staff
 - Monthly MDT Meetings
- 3 ADDITIONAL GP CAPACITY:**

Avoided:

 - Extended Consultations
 - Case review / planning
 - Attendance at external hearings
 - Proactive home visiting
 - GP leadership Development
 - Team building
 - Mentoring early career GPs
- 4 SYSTEM BENEFITS**
 - Improved and better co-ordinated service provision
 - Multi-disciplinary team working
 - Shared learning
 - Horizontal accountability
 - Creating and releasing GP capacity
 - Improved workforce morale, 'time to care'
 - Improved GP recruitment and retention
- 5 PEOPLE BENEFITS**
 - Person focussed approach
 - Addressing the Inverse Care Law (those who most need care are least likely to seek or receive it) in a Deep End, high deprivation community
 - Proactive, not reactive, clinical management of people with complex health and social care needs
 - Improved co-ordination and shared care
 - Early intervention to avoid escalation
- 6 WHO BENEFITED**

Practice vs SHIP Population

Category	Practice	SHIP Population
1-2 Conditions	~45%	~35%
3-4 Conditions	~35%	~25%
5+ Conditions	~15%	~40%

 - Addressing deprivation - More people from the poorest areas
 - Addressing complex patients - Double and triple the numbers of those with multi & poly morbidity (2+ and 4+ conditions)
 - Addressing families - More Females (17-44, frequently family related)
 - Addressing Unscheduled Care - Frequent A&E visitors

Key Contacts: Dr John Montgomery, Lead GP, john.montgomery@nhs.uk
Vince McGarry, Project Manager, vince.mcgarry@gc.scot.nhs.uk

CONCLUSION

The levels of social, environmental and economic inequality in our society are damaging our health and wellbeing. As we emerge from the COVID-19 pandemic there is an urgent need to do things differently, and build a fairer, healthier society based on the principles of social justice.

Whilst the wider social determinants of health, such as sustainable employment, access to education, nutritious food, and good quality housing have the greatest impact on health inequalities, there is often a view that our ability as health and care professionals to influence these determinants is limited. I am concerned that unless we act now the consequences of our inaction will be felt for decades to come. It is important that we fully understand the root causes of these inequalities, if we wish to understand the lives of, and provide better care for, the people who need our help the most.

This will require a whole-system approach.⁷¹ As healthcare professionals we need to understand the challenges the people we care for are facing, and continue to seek out new ways of delivering personalised care. We also need to consider how our workforce can be made more diverse, using our anchor institutions to influence and deliver change in our communities.

We must recognise the power of our health and care system as an employer, asset owner, and purchaser to transform the way we support our local communities. We cannot do it alone. We need to broaden our reach and connect with those who can positively influence the wider determinants of health. Together we can focus on improving the wellbeing and quality of life of the people we care for.

Public Health Scotland (PHS), Scotland's new national organisation for public health, is ideally placed to help us. It has produced a range of materials, measures and tools that aim to help us reduce inequalities, at national and local levels. In previous CMO Annual Reports, we have highlighted tools such as the **Scottish Burden of Disease study** and the **Scottish Atlas of Healthcare Variation**, which can help us eliminate unwarranted variation in health. On International Human Rights Day, PHS also published **training materials on reducing health inequalities**, which will provide useful knowledge and skills to professionals in health and care. In September, PHS published its first **strategic plan** and I fully support its ambition to create **'a Scotland where everybody thrives'**.

Considerations

- What will we do to tackle health inequalities in our everyday practice?
- What will we do to ensure more equitable access to the services we provide?
- How can we help the people we care for, by promoting agency and supporting access to the services they need which often sit beyond healthcare?

SUSTAINABILITY OF OUR WORKFORCE



SUSTAINABILITY OF OUR WORKFORCE



We can't begin to recover our health and care system without considering how the pandemic has affected our own physical and mental health. This has been the most difficult year of my career. When I speak to colleagues, no matter where they have been working, or the service they provide, this experience is almost universally shared. We cannot ignore this or fail to proactively seek out those who need support as a consequence of their experiences during the pandemic. This is not only a moral duty to those who have shown such incredible commitment in adversity, but is essential in maintaining high quality, compassionate care for our patients in the future.

Each of us will have faced varying degrees of issues, concerns for our own health, caring for our families, strain on our important relationships or looking after children during such a heavily restricted time. Some will have sustained trauma to a much greater degree. Recovery must start with acknowledging this, facilitating the means for people to express this and identifying practical means to address it.

There is much discussion of the 'new normal' and how we can shape our health and care system to be a fulfilling place to work where we can practise Realistic Medicine. I don't have all the answers, but I do believe that we can learn from the challenges and successes of this past year. I'm committed to working collaboratively with representatives and organisations from across the professional spectrum to gain better insights of staff experience, and build supportive inter-disciplinary teams that are orientated to provide fulfilling care and support to patients and colleagues alike.

SUPPORTING THE WELLBEING OF OUR WORKFORCE

"Health is all about people. Beyond the glittering surface of modern technology, the core space of every healthcare system is occupied by the unique encounter between one set of people who need services and another who have been entrusted to deliver them"

Frenk et al.¹⁰⁰

Evidence from around the world has shown that COVID-19 continues to have a significant effect on the wellbeing and mental health of those working in health and care.¹⁰¹⁻¹⁰²

In addition to the many personal stories I have heard from colleagues and friends, the **Everyone Matters Pulse Survey** has allowed the experiences of those working on the frontline in health and care to be understood. This abbreviated version of **iMatter** was used to gain a better understanding of both the pressures and triumphs which have marked this year. Worry and anxiety are consistent themes expressed in the report. This ranges from work concerns such as patient care, workload, staffing pressures, and PPE, to increased worries about home and personal life, including caring responsibilities, shielding, ill-health, finances and ongoing uncertainty about the future.

In the Scottish Government's **Re-mobilise, Recover, Re-design: the framework for NHS Scotland**, staff wellbeing has been identified as an essential component. Health Boards have been asked to ensure that their remobilisation plans describe how the physical and psychological wellbeing of staff will be supported.

The burden borne by health and care staff, and the need to support their physical and psychological wellbeing has led to the development of new national resources:

The National Wellbeing Hub: promis.scot was created in partnership with the Rivers Centre for Traumatic Stress in NHS Lothian and the Anchor Psychological Trauma Service in NHS Greater Glasgow & Clyde. The approach is based on the principles of Psychological First Aid, which is recognised internationally as best practice in promoting resilience following trauma exposure.¹⁰³

Since its launch in May up until January, the hub has received over 63,000 visits. The hub is open to all health and care staff, as well as unpaid carers. Additional resources have also been made available through the hub, such as access to apps for staff experiencing sleep disturbance, and online cognitive behavioural therapy.

Wellbeing Helpline: This was launched in July and provides a 24/7 service to those who need further confidential support with trained Psychological Wellbeing Practitioners, who provide a listening ear and can refer onwards for further support.

Workforce Wellbeing Champions Network: A total of 84 'Wellbeing Champions' were engaged from Health Boards, Health and Social Care Partnerships, local authorities and the Scottish Social Services Council. Their remit is to promote the psychological wellbeing of the workforce, collect insights, share best practice, and identify workforce needs to inform national policies.

Coaching for Wellbeing: Through NHS Education for Scotland (NES) and the [KnowYouMore](#) platform, we have provided bespoke **online wellbeing coaching** for health and care staff. By January over 1 500 people had registered, and over 3000 hours of coaching had been allocated.

In addition to these national staff wellbeing programmes there have been multiple local initiatives which have been well received, including delivery of 'Comfort Boxes' to NHS wards, departments and care homes across the Grampian region, and the distribution of "You are Appreciated" postcards in Tayside.



The Emergency Department, NHS Tayside



The NHS Tayside Emergency Department recognised the importance of staff appreciation following an iMatter report in 2018. This led to the a new approach to feedback and reflection. We initiated a Learning from Excellence (LfE) system, where episodes of excellence were identified and reported, enabling real time positive peer to peer feedback. From here, we were able to understand behaviours that were valued in the team and challenge issues such as incivility.

When the pandemic struck in March, we recognised that it would have a massive impact on the wellbeing of our team. The LfE system was adapted to reduce the administration burden and changed to 'You are Appreciated' postcards. We created an honesty box and kept it stocked with food and snacks, so that everyone always had something to eat, and a rest room containing a fresh box of toiletries was made available to all staff. Psychological support was sought from the wellbeing team who provided people with regular opportunities to talk and reflect.

Supporting staff wellbeing has been a real team effort and an ongoing challenge. The team recognises the need to continue to support each other and make sure everyone feels valued at work, but also challenge each other when required, in order to deliver high-quality compassionate patient care.

With unprecedented pressures on our mental health, we need appropriate support to prevent worsening absences from work and to retain staff. A reduced workforce or one experiencing burnout affects the ability to deliver personalised care and the wider aims of practising Realistic Medicine. Work continues to ensure that the wellbeing of our workforce remains a priority. The **iMatter Programme** will recommence later this year and we are developing a new, complementary **Dignity at Work tool**, which specifically measures workplace behaviours and culture. By maintaining momentum, I believe that we can truly look after the health and wellbeing of our colleagues, as they continue to provide personalised care.

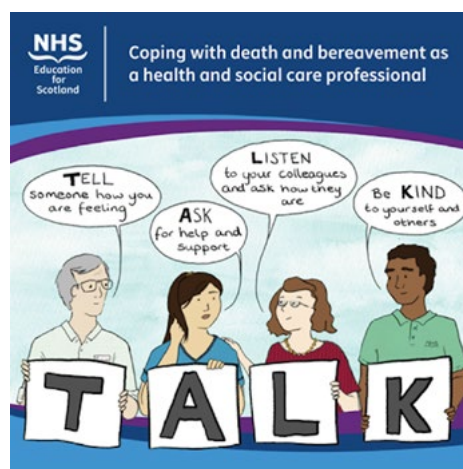
COVID-19 and the NHS Education for Scotland Bereavement Workstream

The NHS Education for Scotland (NES) Bereavement workstream has responded to many of the impacts of the COVID-19 pandemic by developing a range of educational initiatives to help support staff to care for those who are at the end of life, those who are bereaved, as well as support them to look after their own wellbeing.

Early on in the pandemic, visiting rights were suspended in many areas. This led NES to develop guidance on **caring for people who are dying and those close to them amidst these restrictions**, and on **supporting a person's spiritual care needs**, in recognition that representatives of belief communities may have been unable to offer their usual forms of support. Additionally, the number of health and care workers contracting COVID-19 and in some cases sadly dying, prompted NES to produce guidance to support teams dealing with the **death of a colleague and supporting employees who are bereaved**.

NES also launched a **short animation** that introduced the acronym 'TALK' (Tell, Ask, Listen, Kindness). It was designed to help health and care professionals cope with bereavement. It encourages us to support each other with simple strategies such as talking to colleagues, listening and showing kindness to oneself and others.

A Bereavement Webinar series has been established alongside a virtual peer support network for the NHS Scotland Board Bereavement Strategic Leads and Coordinators. NES also built on the success of its inaugural 2019 bereavement conference with a follow-up event on **24th February 2021**. All of these activities support the principles outlined in the first **Bereavement Charter for Children and Adults in Scotland** which launched in Spring 2020.



@NES_Bereavement

www.sad.scot.nhs.uk

SupportAroundDeath@nes.scot.nhs.uk

BECOMING IMPROVERS AND INNOVATORS

Throughout 2020, we have seen an unparalleled pace of change, necessitated by the COVID-19 pandemic. Many of the recent changes to the way we work have been in development for a number of years, but the pandemic necessitated a roll-out which was much more rapid than planned. Some situations have required entirely new innovations to solve new problems. I am continually impressed by the creativity, willingness to embrace change and resilience which has been displayed over this past year.

I am immensely proud of over 12,000 students and returners from health and care who stepped forward to offer their skills during the initial wave of the pandemic. This included more than 2000 final year nursing and midwifery students who joined the NHS Scotland workforce and almost 75% of final year medical students who applied to commence early interim Foundation posts (FiY1) ahead of their usual start date in August. I'd also like to recognise that many other students at earlier stages of their training offered their time as NHS volunteers. Scotland owes a debt of gratitude to the dedication shown by all our students and returners.

The early graduation of medical students and their uptake of clinical duties was well supported by our Undergraduate and Postgraduate Deans, and onsite Educational Supervisors, to ensure that by summer 'new' starts were already well-embedded in their clinical teams.

"All five Scottish medical schools demonstrated an impressive agility in pivoting to online education in the early stages of the pandemic. Working alongside the Postgraduate Deans and the GMC, we were able to ensure that as many students as possible graduated months early, providing reinforcement for hard-pressed clinical teams in late Spring."

Professor John Paul Leach, Head of Undergraduate Medicine, The University of Glasgow

As I have outlined earlier in this report, digital technology allows us to continue to practise Realistic Medicine in this 'new normal'. The rapid change in the way we work would simply not have been possible without the willingness and commitment of our workforce to embrace new ways of doing things.

As I mentioned earlier in my report, Attend Anywhere (which powers the **Near Me** digital consultation service) is transforming the way people engage with health and care services. In **Personalising Realistic Medicine**, we described how Near Me was starting to be used to enable remote consulting and avoid the need for people to travel to consultations. The advent of the pandemic quickly brought into focus the need to provide safe care through rapid uptake of this technology. Digital Health and Care Scotland and Health Boards worked together to quickly make video consulting available to nearly every GP practise and secondary care team in Scotland. The willingness of the NHS workforce to embrace this new way of working has been simply remarkable.

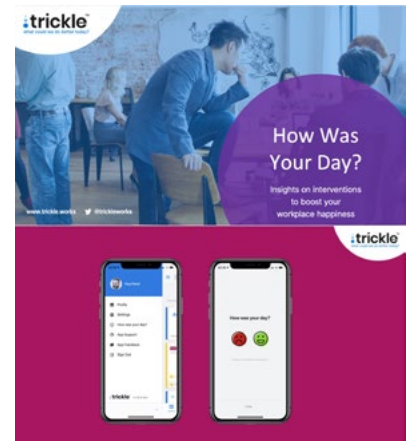
The next frontier for digital technology enabling personalised care will be in Social Care, through Scottish Care's **Vision for Digital Technology & Digital in Social Care**.¹⁰⁴ Care staff are already embracing this change with the **Care Management (Safety Huddle) Tool** being rolled out to all care homes in Scotland.

As well as allowing the continued practise of Realistic Medicine, the use of digital technology can have benefits for staff wellbeing, with the **Trickle wellbeing app** as just one example.

'An app a day to keep the doctor OK'

Funded by Scotland's Chief Scientists Office, as part of its Rapid Research in COVID-19 programme, the Scottish Medical Education Research Consortium have produced an app for NHS frontline workers to use to help them have a 'good day' at work.

Dr Kim Walker, project lead, tells us "The feedback we have had challenges the assumption that doctors have undergone a transition into the 'new normal' of COVID-19, when many still feel that their working lives are anything but normal, and the pandemic has magnified already existing challenges to doctors' wellbeing. It is hoped the app will ultimately improve work satisfaction, mental health and resilience in medical personnel who may be struggling to cope with difficult working conditions".



The app will give real-time data on the well-being of Scotland's workforce and will collate the key aspects that contribute to good days - perhaps days where people feel respected, and connected to colleagues, and bad days - perhaps days where people feel they have not been listened to, or didn't get the chance for physical activity.

"The Trickle App has allowed us to attend to our people, to listen to what's being said, and not said, to understand what's really important, and ask: How can we help?"

Dr Achyut Valluri, Acute Medical Unit Lead,
NHS Tayside

The Trickle app will be piloted in NHS Lothian and NHS Tayside, with plans to roll it out more widely.

The app will provide users with a weekly report encouraging them to focus more on aspects that have previously resulted in good days. It will also provide NHS Boards with a live view of where support and interventions are needed most in response to evolving working patterns and practices, such as the latest COVID-19 constraints.

SUPPORTING A COMPASSIONATE WORKFORCE

"We are a society which treats all our people with kindness, dignity and compassion, respects the rule of law and acts in an open and transparent way".

The National Performance Framework, Scottish Government

Embedding a culture of compassion and kindness

It is well recognised that when staff working in the NHS are subject to high levels of stress this can result in burnout, one symptom of which is compassion fatigue.¹⁰⁵ The risks to patient care when health professionals, who are under pressure, lose some of their ability to feel compassion are significant, as demonstrated in the **Francis Report**.¹⁰⁶

If we are to deliver **careful and kind care** to our patients, we must first show kindness and compassion for each other. Kindness is something that is universally recognised. It cannot be quantified or easily defined, but we all know what it feels like to be treated with kindness. The closely aligned relational values of respect, civility,

compassion and kindness are at the very heart of our humanity and have the profound power to enhance our wellbeing and build relationships.

Research from The Carnegie Trust refers to 'Radical Kindness', for it demands institutional change and challenges long established norms.¹⁰⁷ It requires moving the dominant focus of our organisations from process, performance targets and close scrutiny, towards a balanced approach that emphasises relationships, connections and trust. It requires incorporating qualitative values-focused measures alongside quantitative measures.¹⁰⁷ Cost effectiveness, evidence-based practice and productivity remain vitally important, however there is a pressing need for the values we hold dear to complement the rational aspects of healthcare. While this will not be without its challenges, we must find better ways of working that focus on our shared humanity.

Compassionate and Kind Leadership

We must focus on creating the conditions that allow kindness and compassion to flourish at work. The concept of psychological safety, where staff are listened to, feel included and of worth, creates a culture where successful innovation and improvement are more likely to happen.¹⁰⁸ Having engaged staff is the single most predictive factor for higher productivity, improved health board financial performance, quality of patient care (and reduction of medical errors) and workforce recruitment and retention.¹⁰⁹⁻¹¹⁰

Compassionate, inclusive and multi-professional leadership has the potential to bring wide-ranging benefits across health and care.

Project Lift, an integrated leadership programme, is dedicated to talent management and leadership development. It offers multi-professional development opportunities for current and future leaders. The programme organises free online events for attendees of all levels of seniority to come together and explore collaboratively how to tackle the most urgent issues in health and care. The programme also looks at how we can create a more sustainable way of working. The values of kindness and compassion, humility and curiosity, inclusivity and diversity are at the heart of this programme. We aim to make it part of how we foster a culture of compassionate and inclusive leadership at all levels, and at all stages across health and care in Scotland.



The busy and complex environments in which we work, mean we often find ourselves working with people we do not know. Compassionate leadership is essential to fostering positive inter-personal relationships and supported team working. It also requires personal commitment. Consider for a moment the best team you've been a part of. What made it such a great team to work in? Was it the mutual understanding, respect, civility or kindness you showed each other? Connecting with each other can improve our job satisfaction and the care we provide. What can you do to connect with the people around you?

We must continue to learn from instances of reported incivility and negative behaviours, as represented in the **Sturrock Report**. It contains valuable lessons we must learn from if we wish to establish a collective, collaborative, and cooperative culture, where people feel valued. In the wake of the report, a Ministerial Working Group was convened, to examine and explore measures that support open and honest workplace cultures and deliver sustainable behavioural changes to leadership and management across NHS Scotland. We want to build a national conversation about compassionate leadership, to make culture our first resort and, in time, to create a self-sustaining 'ecosystem' where one generation of generous, compassionate, inclusive leaders inspire the next.

SUPPORTING A DIVERSE AND INCLUSIVE WORKFORCE

“In diversity there is beauty and there is strength.”

Maya Angelou

At the heart of NHS Scotland sits the vision that all staff and patients are treated with care, compassion, dignity and respect.¹¹¹ The pandemic has exposed and exacerbated deep-rooted health and social inequalities in our society and highlighted racial inequalities in our health and care workforce which must be addressed.¹¹²

During the pandemic we have all become used to dealing with uncertainty in the midst of incomplete evidence, and I have listened to the concerns from staff from minority ethnic communities, particularly those from Black or Asian backgrounds, about the potential increased risk of COVID-19 to them and their families.

In light of the growing UK and international evidence of this disproportionate risk to patients and staff¹¹³, an Expert Reference Group on COVID-19 and Ethnicity was established. This group have provided wide ranging **recommendations** on gathering data and evidence to inform our response to these risks, as well as responding to more systemic issues which perpetuate inequalities. In response to this the Scottish Government has published an individual **occupational risk assessment tool** to help consider the risk of COVID-19 in the workplace. Further to this the Scottish Government has committed to:¹¹⁴

- establishing a national Race Equality Network to produce an action plan with annual progress targets for health and care employment at all levels of seniority in relation to minority ethnic groups;
- increasing the numbers of minority ethnic staff in senior and executive team roles through our Leadership and Talent Management Programmes;
- ensuring new and existing minority ethnic staff networks in health and care have a voice and influence to drive change, by introducing clear lines of governance and accountability, up to Board level;
- working with staff networks and health and care employers on a campaign to improve the accuracy of workforce ethnicity data.

This work would not be possible without committed networks of staff in our Health Boards promoting a diverse workforce. I am hopeful that with increased support and with shared learning across health and care, we can move towards a more inclusive and diverse workforce.

We want to increase diversity and inclusion across our health and care system, not just because it is the morally right thing to do, but because the evidence clearly shows that a diverse workforce improves not only engagement and wellbeing for all staff, but also innovation, and the quality and safety of patient care.¹¹⁶ This is imperative if we are to realise the aims of Realistic Medicine.

I am clear that we need to talk about, and live out, the values we champion in our society. We must value and promote an inclusive culture with a diversity of race, age, gender, sexual orientation, religion, and disability. We need to continue to challenge ourselves to learn, to engage in sometimes difficult conversations and listen to those who are experiencing inequalities for any reason. To be a workforce that practises Realistic Medicine and who are passionate about equity, we need to appreciate the strength in our diversity and have compassionate leaders, drawn from a broad pool of talent.

As challenging as it has been, we have continued to make progress, rolling with rapid change, leading on innovation and championing the wellbeing of our workforce. Imagine how much more we can achieve once the acute phase of this pandemic is over.

Reducing Differential Attainment in Medical Education

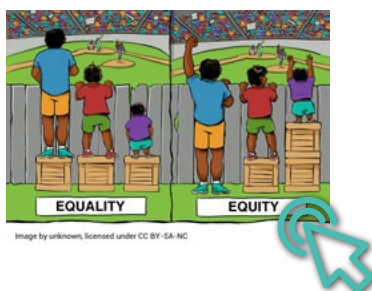
Reducing differential attainment in medical education, and ensuring a fair training experience for all, is one of the key equality outcomes for NHS Education for Scotland (NES). Significant differences in outcomes, termed differential attainment, in College examinations and in training progression between international medical graduates (IMGs) and UK graduates (UKGs) has been widely recognised. The reasons are multifactorial, and are seen in other professions and areas of education.

The Scotland Deanery welcomes IMGs and is committed to acknowledging and reducing the differential attainment gap. Recognising the challenges of integrating into a new country and a new healthcare system, the Scotland Deanery established an IMG induction day, and IMG buddy system, and promotes an IMG doctors support network. In 2020, pre-induction webinar sessions were established in collaboration with the International Recruitment Team which provided specific answers to IMGs' questions. IMGs from 27 countries linked into these sessions, with excellent feedback. Other initiatives include the **Scottish Trainee Enhanced Programme (STEP)** developed in General Practice and currently being expanded into Psychiatry. These programmes aim to welcome IMGs to UK training and to help improve outcomes through improvement in the trainee/trainer working relationship. Uniquely, STEP brings IMGs and their educational supervisors together, for a day of shared learning and development of a new understanding about cultural differences communication skills, and learning techniques.

Advancing Equity in Medical Education

In the GMC National Training Survey¹¹⁵ an important theme this year has been the difference in experience for those in postgraduate medical training from minority ethnic groups, particularly those from Black or Asian backgrounds. These colleagues were less likely to report positive experiences through the pandemic in terms of experience of teamworking, sharing of knowledge and a supportive training environment, compared to the experience of white trainees. According to GMC figures nearly 40% of UK registrants are from a Black, Asian or other minority ethnic background and there are acknowledged longstanding issues of discrimination and disadvantage.

The Scotland Deanery have held webinars to listen to the concerns of our trainees and have set up an Under-Represented Minority Staff Network. This joins the new Disability and Long-Term Conditions Network and LGBT+ Staff Networks. Nevertheless, advancing equity in medical training is an area which requires continued focus over the next year and beyond.



CONCLUSION

I know that many of you are feeling weary and for some it goes beyond that. Some of you will feel burnt out. Many of you are continuing under severe pressures due to the unrelenting pace of the pandemic, staff shortages and increasing workload. As we strengthen our efforts to address these challenges at an organisational and policy level, I firmly believe that kindness and compassion towards each other has a vital role to play in improving our wellbeing and our working lives. As we recover, restore and renew our health and care system, with our workforce at front and centre, we can make Scotland an even better place to work.

I have outlined just a fraction of the good practice to support our workforce that's taking place across Scotland, but by working together we can go further. We must continue to focus on providing kind and compassionate leadership, developing diverse, inclusive and positive workplace cultures and supporting our people to deliver the **careful and kind care** we strive for.

Considerations:

- To provide the best possible care, we need to look after our own wellbeing. How can we look after ourselves and each other better?
- How can we create and foster a positive and inclusive workplace culture that values respect, civility, kindness and each other?
- What can we do to encourage development opportunities at work and ensure we have multidisciplinary leadership in the workplace?

GREEN AND SUSTAINABLE HEALTHCARE



GREEN AND SUSTAINABLE HEALTHCARE



The global crisis of climate change is accelerating. As declared by the First Minister in 2019, we are in a climate and ecological emergency. Human activities are driving rapid changes in our climate, biodiversity loss and species extinction, with changes occurring faster than predicted.¹¹⁷⁻¹¹⁸ If emissions continue to rise at current rates, we will be heading towards a predicted 4°C increase in global temperatures by 2100. It is a temperature thought to be incompatible with organised human society.¹¹⁹ This emergency demands a rapid and comprehensive response, with unprecedented, far-reaching transformation required across our society

The WHO reports that one in nine of total global deaths per year is due to air pollution.¹²⁰

The climate and ecological emergency is also a health emergency, as human health is inextricably linked to the health of our planet and its natural systems.¹²¹ In 2009, The Lancet identified climate change as the biggest global health threat of the 21st century.¹²² The threats to health come in the form of direct impacts due to weather, and indirectly through disruption to natural systems and societal systems. (Figure 1).

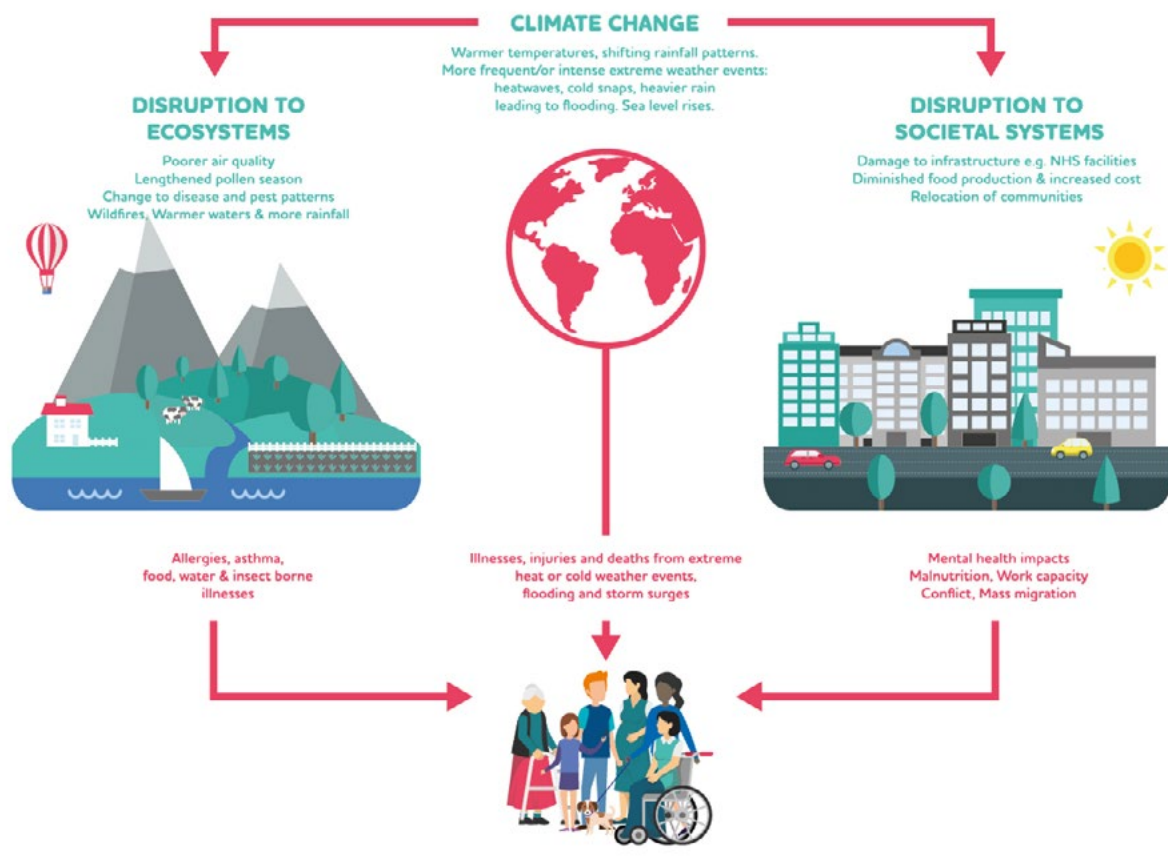


Figure 1: Impact of Climate Change on Health

The COVID-19 pandemic is highlighting, yet again, the interconnected nature of our planetary systems, from the zoonotic origins of disease and their relation to our natural environment and food systems, to the greater vulnerability to disease resulting from social inequality, air pollution and other environmental factors.¹²³

Last March, the whole world adopted varying degrees of curfew and lockdown measures that restricted human mobility. As social, economic, industrial and urbanisation activity decreased, nature took advantage showing dramatic improvements in the quality of our air, cleaner rivers, less noise pollution, undisturbed and calm wildlife.¹²³⁻¹²⁴

While carbon emissions have fallen dramatically due to lockdowns, this has only marginally slowed the overall rise in CO₂ concentrations, according to the World Meteorological Organization (WMO).¹²⁵ The global response to the COVID-19 pandemic, and the resulting decline in emissions in the early part of this year, shows the possibilities in terms of changing human behaviour to have positive impacts on the environment.

In November, Scotland hopes to host the United Nations Climate Change Conference of the Parties (COP26). It is an event of global importance that aims to accelerate action on the climate emergency. It provides a unique opportunity to secure fresh, ambitious and tangible global commitments to tackle the climate crisis and ensure a green recovery from the COVID-19 crisis. I very much hope it will inspire the people of Scotland to consider how we can build a greener future.

A GREENER NHS SCOTLAND

If the global health care sector were a country, it would be the fifth-largest greenhouse gas emitter on the planet.¹²⁶

NHS Scotland is a significant contributor to the climate emergency. It emits a large amount of greenhouse gases, consumes huge amounts of resources and produces copious amounts of waste. We have a moral obligation to help tackle the greatest threat to human health, by reducing our impact on the environment. Responsibility rests with us all.

NHS Scotland has committed to being a 'net-zero' greenhouse gas emissions organisation by 2045, at the latest. This will require unprecedented change in how we work.

The following commitments were announced by the Chief Executive of NHS Scotland in June 2019:

- 1. NHS Scotland will be a 'net-zero' greenhouse gas emissions organisation by 2045 at the latest**
- 2. All NHS Scotland new buildings and major refurbishments will be designed to have net-zero greenhouse emissions from April 2020**
- 3. Each NHS Board should undertake a Climate Change Risk Assessment covering all operational areas and produce a Climate Change Adaptation Plan to ensure resilience of service under changing climate conditions**
- 4. NHS Scotland transport Greenhouse Gas emissions from its owned fleet (small / medium vehicles) will be net-zero by 2025**
- 5. The NHS supply chain will be reviewed to determine the extent of associated greenhouse gas emissions and environmental impacts**
- 6. Each NHS Scotland Board should establish a Climate Change / Sustainability Governance group to oversee their transition to a net-zero emissions service**

Our **NHS Climate Change and Sustainability Strategy 2020-2025** is being developed with the aim of making NHS Scotland a world-leading sustainable healthcare provider. The new strategy, due to be published in spring, renews our commitment to delivering the UN Sustainable Development Goals, and a green, just and resilient recovery to the challenges of COVID-19.

In addition, a **Sustainability Action** brand has been developed to promote awareness of sustainability within NHS Scotland (Figure 2). All of us within NHS Scotland can use this brand and the accompanying toolkits to promote sustainability activities.



Figure 2: Example of a Sustainability Action Poster

In **Realising Realistic Medicine**, we described creating the conditions to achieve the Realistic Medicine vision. The vision that “by 2025 we will demonstrate our professionalism through the approaches, behaviours and attitudes of Realistic Medicine”. Achieving Scotland’s climate goals and Realistic Medicine fit naturally together. To become a sustainable and greener healthcare provider, we must deliver safe, effective, personalised care, and reduce harm and waste through improvement and innovation. We can ensure that NHS Scotland contributes positively to the sustainability of our planet, by taking responsibility, individually and collectively, to become the stewards of our healthcare resources.

CONNECT AND COLLABORATE

We cannot overestimate the power of human connection. Our ability to share ideas, spread good practice and innovate, all stem from it. If we value and strengthen our human connections, together we can change the culture of NHS Scotland, to become a greener, more planet friendly organisation.

The Scottish Environmental Anaesthesia Group (SEA-G) is a grassroots group of anaesthetists with 45 members across most acute hospitals in Scotland. They have addressed national meetings and have lobbied for environmental information to be provided from manufacturers at time of procurement. Issues discussed include; theatre waste segregation, ecological choice in drug and product procurement, and a re-appraisal of single-use culture.

SEA-G have constructed a template for the peri-operative journey called the ‘Green Theatre Project’. This initiative resulted in NHS Highland becoming the first health board in the UK to ban Desflurane as an anaesthetic gas at Raigmore Hospital. This has reduced Raigmore’s CO₂ emissions by 4.5%, with recurring savings of approximately

£70,000. All whilst maintaining patient safety and care standards. If we are serious about reducing our carbon footprint, there is much we can learn from the Green Theatre Project (Figure 3).

The Green Theatre Project initially included a ban on disposable cups in the main theatre suite at Raigmore Hospital, where 78,000 disposable cups were being thrown away every year. The ban on single use items and the “gloves are off” campaign, which encourages healthcare professionals to reduce unnecessary use of non-sterile gloves, have been rescinded due to the pandemic. It is important to acknowledge that the COVID-19 pandemic has caused significant changes in the production and generation of single use plastic. While Personal Protective Equipment has played an important role in preventing the spread of COVID-19, the upsurge in demand for these items will challenge our efforts to curb plastic pollution and move towards more sustainable and circular systems. We need to be mindful of how we can mitigate this by focusing on what is within our sphere of influence in our places of work, such as recycling practices and purchasing recyclable and re-usable kit and materials where it is safe to do so.

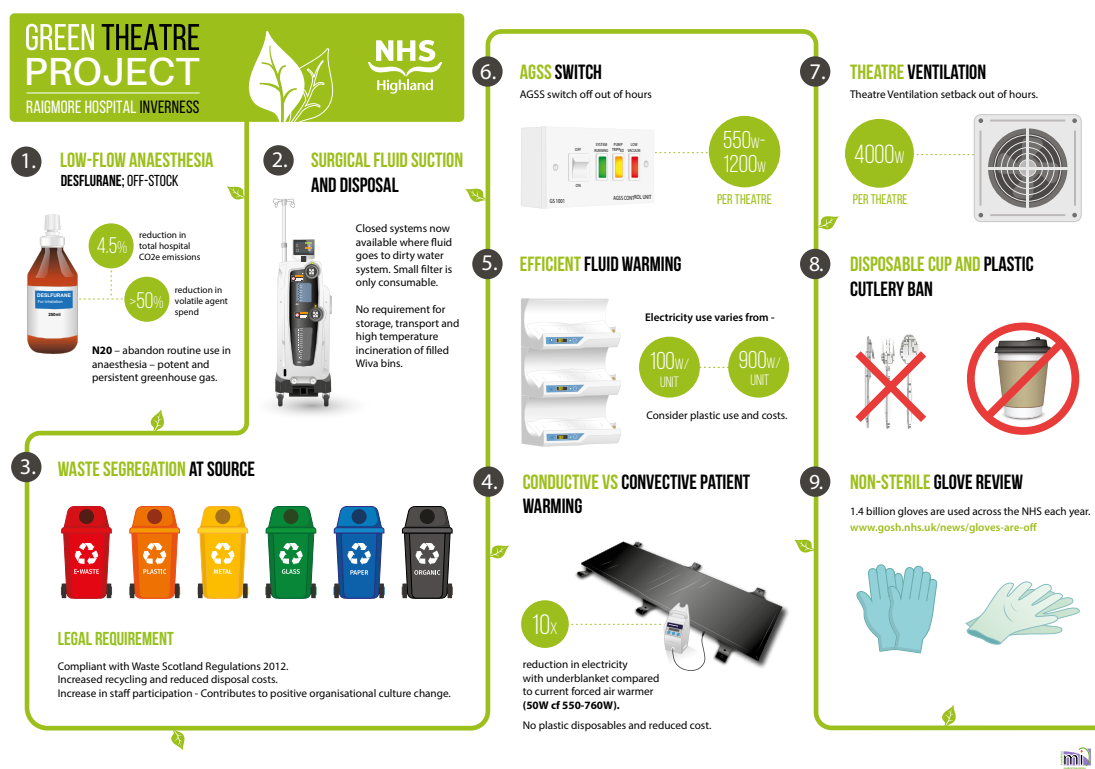


Figure 3: The Green Theatre Project

The climate emergency has wide-ranging causes and impacts that extend far beyond the traditional boundaries of health and care. In order to tackle these issues we must broaden our horizons and collaborate with an increasing number of organisations outside of the health sector.

There is compelling evidence that shows the positive contribution that contact with nature can make to our health and wellbeing.¹²⁷ Our health is intimately linked to the sustainability of ecosystems within which we live our lives. Improving access to, and encouraging us to use our natural environments, could play a key role in delivering Scotland’s public health priorities.

The “Our Natural Health Service Programme” (ONHS), is led by NatureScot (formerly Scottish Natural Heritage), in partnership with Scottish Forestry, NHS Scotland, Public Health Scotland, and Transport Scotland, and a range of other national and local organisations. It is a programme of work that I am particularly proud to be involved with and connects two important and accessible contributors to our health – physical activity and outdoor green space.

The OHNS **NHS Greenspace Demonstration Project** has been working with Health Boards to develop the potential of the NHS outdoor estate to deliver better outcomes for health, nature and the climate. The first phase resulted in greenspace improvements across a range of hospital and health centre sites in mainland Scotland. Overall, some 87 hectares of greenspace have been created or improved including 46 hectares of woodland brought back into sustainable management. On-site promotion of greenspace opportunities benefits staff, patients, visitors and the local community.

Through improvements to our greenspaces, we can promote more physical activity at work and improve staff wellbeing. It's an observation reinforced during the COVID-19 pandemic where we have seen staff using workplace greenspace to seek relaxation and solace during stressful times.



Picture 1 The Community Garden at Royal Edinburgh Hospital. Photography by Will Collier/Edinburgh & Lothians Health Foundation

Another major element of the ONHS programme are the four **Green Health Partnerships** (GHPs) established in Lanarkshire, Dundee, North Ayrshire and Highland. Led by Health Boards and Local Authorities, these partnerships are demonstrating ways to increase our use of the natural environment as a health promoting asset.

Delivery of supportive green health projects has been impacted by COVID-19 restrictions, but many GHP projects have been re-purposed and helpful resources developed to communicate key messages about the benefits of contact with nature and to promote more use of local green space. The GHPs have produced 'Keeping Healthy in the Outdoors during COVID' videos, organised walking challenges, and distributed 'Green Health' packs to encourage outdoor exercise and an interest in nature.

Community Growing Initiative, Lanarkshire

This is an example project from Lanarkshire Green Health Partnership and is delivered by the Clydesdale Community Initiatives (CCI) which works with people experiencing severe and enduring mental health issues in the community or hospitals.

Participants are involved in activities such as creating and maintaining garden areas for vegetables and fruits, and planting beds for herbs and flowers at a variety of community greenspaces. They have the opportunity to acquire and develop vocational skills. Group work and peer mentoring is encouraged. Older inpatients with dementia reconnect with nature and experience the joy of seeing gardens grow. Some of the garden produce goes to local food banks to help others in need. This has been particularly welcome during the COVID-19 pandemic. During lockdown, CCI staff continued to provide support by providing tools, materials, and coaching videos to occupational therapists to help them engage patients in gardening activities.

As one member of the hospital staff noted:

"It's amazing to see the difference in Mr X. He just used to sit at the door and had no interaction with anyone. Now he's waiting on us coming with a huge beaming smile, and is sorry when the session ends!"

The Highland Healthcare Professionals for Climate group is a group of healthcare professionals brought together by a shared concern about the environmental crisis, and a recognition of the health benefits of addressing it. Created by GPs, the group has enabled practices across Highland to connect and share environmental action plans to make practices more sustainable.

The group advocate at local and community council level for active health infrastructure. Initiatives have included the cycle scheme 'WheelNess' (bikes provisions to over 220 people with financial or health barriers, developed and delivered by Cycling UK), and Couch to 5K programmes for both staff and the people they care for. They have secured funding for bicycle shelters for all Inverness GP practices, e-bikes that GPs can use for home visits as well as e-bikes for carers. They have also actively contributed to the rolling out of a network of walking, wheeling and cycling infrastructure along priority routes, to help people stay safe on essential journeys.

Quotes from participants of the 'WheelNess' (Widening access to cycling in Inverness) Scheme

"If I've done a 12-hour [nursing] shift and I've driven there and back, your feet are in absolute agony and your legs are swollen. But if I cycle home, I don't have sore feet or legs..." "...It's good for my fitness and for keeping my weight down."

"I was spending £40 a week on taxis home from work. Now I use the bike six days a week and do about 35 miles a week. I have saved loads and can afford to buy healthy food for my son."

"I would not have been able to provide vital COVID-related services without this loan. I do not drive, and the trike has allowed me to deliver weekly food shops and boxes of crafts for children and disadvantaged households."

The time to build on climate positive changes brought about by the COVID-19 pandemic is now. What can we do within our own spheres of influence to adopt and encourage greener practice and behaviours?

COMMUNICATE

Fostering a Culture of Stewardship for Greener, Sustainable Healthcare

To create a culture of stewardship - where we are mindful of the resources we use and share a vision of green and sustainable healthcare - we must ensure that future members of our health and care system feel engaged and empowered to move towards our goal. The GMC requires that:

“Newly qualified doctors must be able to apply the principles, methods and knowledge of population health and the improvement of health and sustainable health care to medical practice.”¹²⁸

It is evident that medical training must foster a culture of stewardship and evolve to teach our future doctors the principles of both planetary health, and sustainable healthcare. Our future clinicians must not only apply this knowledge as part of their everyday practice - green prescribing, promoting healthy, low carbon behaviours, shaping sustainable healthcare systems - but also use their position as trusted members of our society to influence the behaviours of their colleagues, as well as the people they care for.

The University of Dundee and NHS Tayside have worked towards embedding Planetary Health and Sustainable Healthcare into the core undergraduate medical curriculum. The university delivers modules, workshops, and student selected components that introduce students to the over-arching, recurrent themes of environmental sustainability and sustainable healthcare. The aim is to provide graduates with the knowledge and skills required to promote and support healthy, low carbon behaviours in the people they care for, shape sustainable healthcare systems and use their positions as trusted members of our society to influence wider environmental policy.

PERSONALISED APPROACH TO CARE/SHARED DECISION MAKING

We tend to choose less treatment, or more conservative treatment, when all the risks and benefits of various treatment options are fully explained to us. When there has not been a full discussion of our preferences, or what truly matters to us has not been elicited, we are less likely to comply with a prescription, and more likely to regret a procedure, increasing harm and waste. As waiting lists grow and access to conventional medical and surgical therapies are restricted for public health reasons, the need for personalised and value-based care is stronger than ever. A renewed focus on lifestyle changes, and a move away from traditional medical models of care, will undoubtedly be more beneficial for many of the people we care for and for our health and care system.

REDUCING HARM AND WASTE

“A central theme of Realistic Medicine has been to engage clinicians in efforts to become stewards of NHS resources by helping them understand that it is their decisions that commit resources.”

Sir Muir Gray

Sir Muir Gray is Director of the Value-based Healthcare Programme at Oxford University, and an internationally renowned authority on healthcare systems. He states that a major factor that affects the sustainability of our NHS is the relentless increase in volume and intensity of our clinical practice. He reminds us that in recent years, the NHS in the UK has experienced growth of around 4.5% per annum and that the majority of it has been generated by increases in the volume of clinical activity and innovation. A relatively small amount is due to the more complex needs of our ageing population.¹²⁹

The Organisation for Economic Co-operation and Development estimates that up to one fifth of healthcare spending across member countries, which includes the UK, is wasted.¹³⁰ The question we must ask ourselves is whether we have gone beyond what Sir Muir calls the 'point of optimality' – the point of delivering the best balance of benefit-to-harm for the populations we serve.

We know that all healthcare has potential to cause harm - exposure to radiation from imaging, risks from procedures, and side effects from medication. Over investigation and overtreatment may not only cause harm to the people we care for, but they also waste our precious healthcare resources, consume our natural resources and contribute to environmental degradation.

The prescription of a medicine is the most common intervention in healthcare, but do we consider how prescribing impacts on our environment? 30-100% of every oral dose of a medicine is excreted unchanged, or as metabolites and enters our wastewater system. Wastewater treatment plants cannot completely remove medicines, and there is evidence of over 600 pharmaceuticals in our water systems.¹³¹ While no clear link has been established between pharmaceuticals in the environment and direct impacts on human health, there is evidence that they can harm aquatic life, enter our food chains and lead to an increase in antimicrobial resistance.¹³¹⁻¹³²

So what can we do? We can ensure appropriate prescribing of pharmaceutical products, have shared decision-making conversations to ensure compliance, and put systems in place in order to encourage the people we care for to order the precise amount of medicine they need. We can also encourage them to take unused, unwanted or out of date medicines to community pharmacies for appropriate disposal. These are means by which we can help reduce pharmaceutical waste and pollution.

The One Health Breakthrough Partnership (OHBP)

The One Health Breakthrough Partnership is a unique collaboration which was founded by NHS Highland, The Highlands and Island Enterprise, Scottish Water, Scottish Environment Protection Agency and The University of Highlands and Islands. Partners now include; Forrit, The James Hutton Institute, Talking Medicines, Glasgow Caledonian University, University of Strathclyde and The University of Edinburgh.

These organisations have come together to tackle pharmaceuticals in the environment with a vision for a non-toxic, sustainable environment. The partnership approach recognises that no single organisation can deliver this vision on its own. All partners have agreed to share knowledge and an initial programme of work is already underway.

NHS Highland worked with the OHBP to look at ways in which Caithness General Hospital can reduce water pollution caused by medicines, and was awarded certification to the Alliance for Water Stewardship (AWS) Standard in November 2019. Caithness General is the first hospital in the world to receive AWS Standard certification for its work to reduce the impact of pharmaceuticals on the environment.

The OHBP won an award at the 2020 Scottish Environment Business Awards. The Partnership was also "highly commended" and awarded runner up at the 2020 BMJ Healthcare Awards in the Environmental Sustainability and Climate Action category.

BECOME IMPROVERS AND INNOVATORS

During this pandemic, there have been unprecedented advances in telemedicine across NHS Scotland, led by the Scottish Government's Technology Enabled Care Programme. The following case studies explore innovations that have the potential to have a significant impact on the carbon footprint of NHS Scotland.

Reducing Patient Travel Miles

Near Me

As mentioned earlier in the report, Near Me is a video consulting service that enables people to attend appointments from wherever convenient. At the start of the pandemic a rapid scale up plan was introduced to accelerate the use of Near Me across Scotland. There are currently around 20,000 Near Me consultations per week. This represents an estimated travel saving of over 28 million miles per annum. In the recently completed public consultation, where views on the benefits of video consultations were sought, environmental benefit scored highly among the general public.

Scale Up BP

Over 1.2 million GP appointments are taken up each year solely for checking blood pressure (BP). Many of these involve journeys by car or public transport. Scale-Up BP is a telemonitoring service for patients which allows them to check their BP in their own home and send this to their practice by text or internet. The GP sees a summary of these results and can contact people by video, phone, text or email to discuss results, and advise them on any therapy changes. In a large study in Lothian, patients using telemonitoring had 25% fewer face-to-face contacts than in the previous year. A significantly bigger reduction than in a closely matched comparator group who did not use telemonitoring. Over 15,000 people have now used Scale Up BP with an increase in uptake during the pandemic.

Measuring healthcare practices and outcomes against not only economic, but also environmental and social costs, gives us a better idea of sustainable value in quality improvement.¹³³ Incorporating environmental and social impacts into our clinical practices gives a more holistic view of the healthcare we provide, and can help us become a more sustainable healthcare system. This approach allows us to identify unique opportunities for improvement which might otherwise be missed, and helps ensure that improvements are sustainable in the widest sense.¹³³

The following thought provoking case study encourages us to think about the impact of our clinical practices on the environment.

Environmental Impact of Inhalers¹³⁴

Inhaler devices are the primary treatment for patients with asthma and COPD and are extensively prescribed. The options are a dry powder inhaler (DPI), which delivers a fixed dose of medication in a dry powder form, or a metered dose inhaler (MDI) which delivers the medication as an aerosol. Originally the propellants used in MDIs were chlorofluorocarbons (CFCs), but in response to concerns about CFCs causing stratospheric ozone loss, they have been replaced by hydrofluroalkane (HFA) propellants.

Unfortunately HFAs are potent greenhouse gases. Although less potent than CFCs, the global warming potential (GWP) of one of the common HFAs is more than thousand times more potent than carbon dioxide. The consequence of this is that MDIs have a substantial adverse environmental impact.

To illustrate this, a Ventolin (salbutamol) MDI has an estimated carbon footprint equivalent per dose to driving about a mile in a small car. Over a year this would be equivalent to 205KgCO₂e, in comparison with 9.5KgCO₂e for the Ventolin Accuhaler, which is a DPI. It is estimated that approximately 4% of the carbon footprint of the NHS results from the use of MDI inhalers.

All of the classes of inhaled medicines that are used are available in a DPI form, and from an environmental perspective it would be prudent to change prescribing practices towards using DPIs in comparison to MDIs. Prescribing practices are influenced by habit and tradition, and how familiar a clinician is with the alternative. The choice of inhaler device for a patient is also determined by the ability of the patient to use the device, price and preference. In 2017, 13% of inhalers in use in Sweden were MDIs, in comparison to 70% in the UK. This disparity can only really be explained by the non-clinical factors described above.

Although some DPIs are more expensive than MDIs, this is not always the case, and many inhaled medications are relatively cheap. For many patients DPIs may be more effective, as many individuals struggle to use MDIs. There is therefore important work to be done to change prescribing practice to reduce the environmental impact of inhaled medication.

CONCLUSION - ADVOCATES FOR CHANGE

The time for sustainability by stealth and seeing it as a 'nice thing to do' or 'someone else's job' has passed. Improving population health and wellbeing is inextricably linked to action to tackle climate change.

There are many challenges. For example, although sustainability initiatives often reduce costs, how do we prioritise investment in stretched services? How do we balance essential infection control with the need to reduce waste in both packaging and single use products? The challenges may seem insurmountable, but I hope the case studies in this chapter have inspired you to explore how you and your organisations can deliver green and sustainable healthcare.

While the pandemic is not a solution for climate change, it can be an historic turning point in tackling the global climate crisis. We must learn from it and make significant advances to deliver the fairer, greener, more prosperous Scotland we all want to see. We all have a key part to play in this. Can we, through the principles of Realistic Medicine, practise sustainable and greener healthcare?

Considerations

- What can we do within our sphere of influence to practice greener and more sustainable healthcare?
- As we aim towards a culture of stewardship, how can we become more mindful of the NHS resources we use and use them more wisely?
- Consider how you can influence and empower your colleagues and the people you care for to practice climate positive behaviours that can have a positive impact on their physical and mental health.



ACKNOWLEDGEMENTS

Editorial Team



Chief Editor
Dr Savita Brito-Mutunayagam
Specialist Registrar in Sexual and
Reproductive Health
Scottish Clinical Leadership Fellow
(2019/2020)



Chief Editor
Dr Julie Aitken
Specialist Registrar in Paediatrics
Scottish Clinical Leadership Fellow
(2020/2021)



Craig Bell
Unit Head, Realistic Medicine Policy Team,
Scottish Government



Dr Helen Mackie
National Clinical Lead for Realistic
Medicine
Consultant Gastroenterologist

Authors



Dr Gerry McCartney
Consultant in Public Health
Head of Public Health Observatory, Public
Health Scotland
Author of Health of the Nation &
Reducing Health Inequalities



Dr Emma Watson
Consultant Microbiologist
Deputy Medical Director NHS Highland
Author of Green & Sustainable
Healthcare



Dr Cameron Herbert
Specialist Registrar in Paediatrics
Scottish Clinical Leadership Fellow
(2020/2021)
Author of Sustainability of our Workforce

Contributors

Professor Alan Denison, Dean of Postgraduate Medicine, NHS Education for Scotland

Dr Alan Mackenzie, Scottish Clinical Leadership Fellow. Specialty Registrar in Forensic Psychiatry, NHS Lothian

Alex Young, Technical, Corporate and Parliament Team Leader, Social Security Policy Division, Scottish Government

Dr Alison White, Emergency Medicine Consultant, NHS Tayside

Alpana Mair, Division Head, Effective Prescribing and Therapeutics, iSIMPATY Coordinator, Scottish Government

BBC News

Dr Ben Reynolds, Consultant Paediatric Nephrologist, NHS Greater Glasgow and Clyde, Clinical Lead for Paediatric Transplantation

Professor Brian McKinstry, Professor of Primary Care eHealth, University of Edinburgh

Bridget Finton, People & Places Activity Team, NatureScot

Dr Calvin J Lightbody, Consultant in Emergency Medicine, NHS Lanarkshire

Christopher Doyle, Senior Policy Manager, Clinical Priorities Unit

Claire Austin, Scottish Clinical Leadership Fellow Specialist Registrar in Obstetrics and Gynaecology, NHS Lothian

Dr Clare Tucker, Specialist Lead Grief & Bereavement, NHS Education for Scotland

Dr Dave Caesar, Interim DCMO, DGHSC Scottish Government

Dr David A McDonald MBE, National Improvement Advisor, Modernising Patient Pathways Programme, Scottish Government

Dr David N Blane, Clinical Research Fellow in General Practice & Primary Care, Institute of Health & Wellbeing, University of Glasgow

Professor D. Robin Taylor, Consultant Physician, NHS Lanarkshire

Emma Walker, Chief Executive Officer, Fife Sports and Leisure Trust

Farzana Khan, Mother of Zak Khan

Graeme MacLennan, Policy Executive, Access to Free Period Products, Scottish Government

Professor Graham Ellis, Senior Medical Officer, Ageing and Health, Honorary Professor, Glasgow Caledonian University

Hazel Archer Head of Programme - Near Me, Technology Enabled Care Programme, Scottish Government

Helen Stevens, Team Leader, Palliative and End of Life Care, Directorate for Healthcare Quality and Improvement, Scottish Government

Jamie Begbie, Senior Policy Manager, Person-Centred Care Team, Scottish Government

John Burnside, Environmental Officer, NHS Highland

Dr John Montgomery, David Elder Medical Practice, Lead Clinician Govan SHIP Project

Professor John Paul Leach, Professor of Clinical Neurology, Honorary Consultant Neurologist, Head of Undergraduate Medicine, University of Glasgow

Karen McNiven, Health Improvement Manager, South Sector, Glasgow City Health & Social Care Partnership

Kate Burton, Public Health Practitioner (Health Inequalities), Scottish Public Health Network (ScotPHN)

Katie Cuthbertson, Programme Director, Modernising Patients Pathway Programme, Scottish Government

Katie Morris, Interim Programme Director, Scottish Access Collaborative, Scottish Government

Dr Kenneth Barker, Consultant Anaesthetist, NHS Highland

Dr Kim Walker, Principal Investigator, COVID-19 Wellbeing Study

Mr Lech Rymaszewski, Clinical Advisor ACRT/PIR, Modernising Patient Pathways Programme, Scottish Government

Louise Kay, Unit Head, Cancer, Rare Diseases and National Planning, Scottish Government

Professor Maggie Bartlett, Head of Undergraduate Medicine, University of Dundee

Marc Beswick, National Lead, Near Me Network

Mark Lawson, Senior Policy Manager, Drug Policy Division, Scottish Government

Margaret Nugent, Clinical Advisor, ACRT/PIR, Modernising Patient Pathways Programme, Scottish Government

Dr Margaret Whoriskey, Director Technology Enabled Care Scottish Government

Margaret Wood, National Improvement Advisor, Modernising Patients Pathway Programme, Scottish Government

Professor Sir Muir Gray, Executive Director of the Oxford Centre for Triple Value Healthcare

Neil White, Senior Statistician, Health and Social Care Analysis Hub, Scottish Government

Dr Paul Baughan, GP in Forth Valley and National Clinical Lead with Healthcare Improvement Scotland

Phil Eaglesham Organisational Lead (Inclusion Health), Public Health Scotland

Professor Rowan Parks, Acting Medical Director, NHS Education for Scotland

Ruth Jays, Unit Head, Person-Centred and Participation Team, Scottish Government

Dr Ruth Yates, Scottish Clinical Leadership Fellow. Specialty Registrar in Palliative Medicine, NHS Greater Glasgow & Clyde

Sam Waller, Cycling UK

Sharon Pflieger, Consultant in Pharmaceutical Public Health, NHS Highland

Dr Stephen Thomas, Consultant Respiratory Physician, NHS Highland

Professor Stewart Mercer, Professor of Primary Care and Multimorbidity, University of Edinburgh, Director of the Scottish School of Primary Care.

Tim Wilson, Director, Oxford Centre for Triple Value Healthcare

Zak Khan, Kidney Transplant Patient

Realistic Medicine Team



Jennifer Graham
Team Leader, Realistic Medicine,
Scottish Government



Alice Carmichael
Policy Manager, Realistic Medicine,
Scottish Government



Aga Lysak
Policy Manager, Realistic Medicine,
Scottish Government



Robert Wyllie
Policy Manager, Realistic Medicine,
Scottish Government



Mary Hucker
Policy Manager, Realistic Medicine,
Scottish Government



REFERENCES



1. Scottish Government. Long-term monitoring of health inequalities: January 2020 report. Available from: <https://www.gov.scot/publications/long-term-monitoring-health-inequalities-january-2020-report/> [Accessed 9th February 2021]
2. The Scottish Public Health Observatory. Healthy Life Expectancy: Scotland. 2019. Available from: <https://www.scotpho.org.uk/population-dynamics/healthy-life-expectancy/data/scotland/> [Accessed 9th February 2021]
3. Fenton L, Wyper GM, McCartney G, Minton J. Socioeconomic inequality in recent adverse all-cause mortality trends in Scotland. *J Epidemiol Community Health*. 2019; 73(10):971-4
4. Fenton L, Minton J, Ramsay J, Kaye-Bardgett M, Fischbacher C, Wyper GM, McCartney G. Recent adverse mortality trends in Scotland: comparison with other high-income countries. *BMJ open*. 2019; 9(10)
5. Walsh D, McCartney G, Minton J, Parkinson J, Shipton D, Whyte B. Changing mortality trends in countries and cities of the UK: a population-based trend analysis. *BMJ open*. 2020;10(11)
6. Toffolutti V, Suhrcke M. Does austerity really kill? *Economics and Human Biology* 2019; 33: 211-223
7. Rajmil L, Fernández de Sanmamed MJ. Austerity policies and mortality rates in European countries, 2011-2015. *American journal of public health*. 2019;109(5):768-70
8. Van der Wel KA, Saltkjel T, Chen WH, Dahl E, Halvorsen K. European health inequality through the 'Great Recession': social policy matters. *Sociology of health & illness*. 2018; 40(4):750-68
9. Wickham S, Bentley L, Rose T, Whitehead M, Taylor-Robinson D, Barr B. Effects on mental health of a UK welfare reform, universal credit: a longitudinal controlled study. *The Lancet Public Health*. 2020;5(3):e157-64
10. Katikireddi SV, Molaodi OR, Gibson M, Dundas R, Craig P. Effects of restrictions to income support on health of lone mothers in the UK: a natural experiment study. *The Lancet Public Health*. 2018;3(7):e333-40
11. Garthwaite K, Bambra C. Shifting the goalposts: a longitudinal mixed-methods study of the health of long-term incapacity benefit recipients during a period of substantial change to the UK social security system. *J Social Policy* 2014;43(2):311-330
12. Portes J, Reed H. The cumulative impact of tax, social security and public spending decisions in Scotland: Summary Report. Equality and Human Rights Commission, 2019. Available from: <https://www.equalityhumanrights.com/en/publication-download/cumulative-impact-tax-social-security-and-public-spending-decisions-scotland> [Accessed 9th February 2021]
13. Richardson EA, Taulbut M, Robinson M, Pulford A, McCartney G. The contribution of changes to tax and social security to stalled life expectancy trends in Scotland: a modelling study. *Journal of Epidemiology and Community Health*, 2020.
14. Wright S, Patrick R. Welfare Conditionality in Lived Experience: Aggregating Qualitative Longitudinal Research. *Social Policy & Society* 2019; 18:4, 597-613
15. McKechnie K. CPAG Early Warning System report on Universal Credit and childcare costs. Glasgow, CPAG Scotland, 2019. Available from: <https://cpag.org.uk/policy-and-campaigns/report/early-warning-system-report-universal-credit-and-childcare-costs> [Accessed 9th February 2021]

16. McKechnie K. CPAG Early Warning System: A report on the two child limit. Glasgow, CPAG Scotland, 2018. Available from: <https://cpag.org.uk/sites/default/files/CPAG-Scot-EWS-two%20child%20limit-Jul2018.pdf> [Accessed 9th February 2021]
17. McKechnie K, Davis M. CPAG Early Warning System: A report on the benefit cap. Glasgow, CPAG Scotland and One Parent Families Scotland, 2018. Available from: https://cpag.org.uk/sites/default/files/files/page/CPAG%20-%20Scot%20-%20Benefit%20cap%20report%20%28Jan%2018%29_0.pdf [Accessed 9th February 2021]
18. McKechnie K. CPAG Early Warning System: Universal credit - December 2018. Glasgow, CPAG Scotland, 2018. Available from: <https://cpag.org.uk/sites/default/files/CPAG-Scot-EWS-universal%20credit%20%28Dec%2018%29.pdf> [Accessed 9th February 2021]
19. Rlaeigh V. What is happening to life expectancy in the UK. The King's Fund. Available from: <https://www.kingsfund.org.uk/publications/whats-happening-life-expectancy-uk> [Accessed 9th February 2021]
20. Ho JY, Hendi AS. Recent trends in life expectancy across high income countries: retrospective observational study. *BMJ*. 2018;15;362
21. Hiam L, Dorling D, Harrison D, McKee M. What caused the spike in mortality in England and Wales in January 2015? *J Royal Society Medicine* 2017;0(0) 1–7
22. Green MA, Dorling D, Minton J, Pickett KE. Could the rise in mortality rates since 2015 be explained by changes in the number of delayed discharges of NHS patients? *J Epidemiology and Community Health* 2017;71:1068-1071
23. Douglas M, Katikireddi SV, Taulbut M, McKee M, McCartney G. Mitigating the wider health effects of covid-19 pandemic response. *BMJ*. 2020; 27;369
24. Bavli I, Sutton B, Galea S. Harms of public health interventions against covid-19 must not be ignored. *BMJ*. 2020;371
25. National Records for Scotland. Direct Health Impacts of COVID-19. Available from: https://data.gov.scot/coronavirus-covid-19/detail.html#1_direct_health_impacts [Accessed 20th February 2021]
26. Maxwell E. Living with Covid 19. A dynamic review of the evidence around ongoing Covid 19 symptoms (often called Long Covid). NIHR Centre for Engagement and Dissemination. 2020
27. COVID-19 rapid guideline: managing the long-term effects of COVID-19 NICE guideline [NG188] December 2020. Available from: <https://www.nice.org.uk/guidance/ng188/chapter/8-Service-organisation> [Accessed 9th February 2021]
28. National Records for Scotland. Excess Deaths. Available from: https://data.gov.scot/coronavirus-covid-19/detail.html#excess_deaths. [Accessed 9th February 2021]
29. Scottish Health Public Health Observatory. COVID-19 Wider Impacts. Available from: <https://www.scotpho.org.uk/comparative-health/coronavirus-covid-19/covid-19-wider-impacts/> [Accessed 9th February 2021]
30. Scottish Government. Coronavirus (COVID-19): framework for decision making – assessing the four harms. December 2020. Available from: <https://www.gov.scot/publications/covid-19-framework-decision-making-assessing-four-harms-crisis/> [Accessed 9th February 2021]

31. Public Health Scotland. COVID-19 wider impacts on the health care system information tool. Available from: <https://scotland.shinyapps.io/phs-covid-wider-impact/> [Accessed 9th February 2021]
32. Public Health Scotland. Non-COVID-19 excess deaths by cause. August 2020. Available from: <https://beta.isdscotland.org/find-publications-and-data/population-health/covid-19/non-covid-19-excess-deaths-by-cause/> [Accessed 9th February 2021]
33. Scottish Government. Covid-19 in Scotland. People Avoiding Contacting GPs. Available from: https://data.gov.scot/coronavirus-covid-19/detail.html#people_avoiding_contacting_gps [Accessed 9th February 2021]
34. Scottish Government and COSLA. Scotland's Wellbeing, The impact of COVID-19. December 2020. Available from: https://nationalperformance.gov.scot/sites/default/files/documents/NPF_Impact_of_COVID-19_December_2020.pdf [Accessed 9th February 2021]
35. Scottish Government Covid-19 in Scotland. Loneliness. Available from: <https://data.gov.scot/coronavirus-covid-19/detail.html#loneliness> [Accessed 9th February 2021]
36. Scottish Household Survey 2018: Annual Report. September 2019. Available from: <https://www.gov.scot/publications/scotlands-people-annual-report-results-2018-scottish-household-survey/> [Accessed 9th February 2021]
37. Scottish Government. Crisis Grants. Available from: https://data.gov.scot/coronavirus-covid-19/detail.html - crisis_grants [Accessed 9th February 2021]
38. Clift AK, Coupland CA, Keogh RH, Diaz-Ordaz K, Williamson E, Harrison EM, Hayward A, Hemingway H, Horby P, Mehta N, Benger J. Living risk prediction algorithm (QCOVID) for risk of hospital admission and mortality from coronavirus 19 in adults: national derivation and validation cohort study. *BMJ*. 2020; 20;371
39. National Records of Scotland. Deaths involving coronavirus (COVID-19) in Scotland, week 6 (8 to 14 February 2021). Available from: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/weekly-and-monthly-data-on-births-and-deaths/deaths-involving-coronavirus-covid-19-in-scotland/archive> [Accessed 20th February 2021]
40. National Records of Scotland. Deaths involving coronavirus (COVID-19) by ethnic group. 2020. Available from: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/deaths-background-information/ethnicity-of-the-deceased-person#covid> [Accessed 9th February 2021]
41. Scottish Government. Impacts of COVID-19 on Equality in Scotland. September 2020. Available from: <https://www.gov.scot/publications/the-impacts-of-covid-19-on-equality-in-scotland/> [Accessed 9th February 2021]
42. Scottish Government. Person-centred care. November 2019. Available from: <https://www.gov.scot/publications/person-centred-care-non-executive-members/> [Accessed 13th February 2021]
43. Scottish Government. COVID-19 Framework for Decision Making. Shielding: A way forward for Scotland. June 2020. Available from: <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2020/06/coronavirus-covid-19-shielding-way-forward-scotland/documents/shielding-way-forward-scotland/shielding-way-forward-scotland/govscot%3Adocument/shielding-way-forward-scotland.pdf> [Accessed 13th February 2021]

44. General Medical Council. Good medical practice. March 2013. Available from: https://www.gmc-uk.org/-/media/documents/good-medical-practice---english-20200128_pdf-51527435.pdf?la=en&hash=DA1263358CCA88F298785FE2BD7610EB4EE9A530 [Accessed 13th February 2021]
45. The Support Investigators. A controlled trial to improve care for seriously ill hospitalized patients. The study to understand prognoses and preferences for outcomes and risks of treatments (SUPPORT). JAMA 1995;274:1591-8.
46. Detering KM, Hancock AD, Reade MC, Silvester W. **The impact of advance care planning on end of life care in elderly patients: randomised controlled trial.** BMJ. BMJ Publishing Group Ltd.2010; 340: c1345. doi:10.1136/bmj.c1345. PMC 2844949. PMID 20332506
47. Taylor DR, Lightbody CJ. Futility and appropriateness: challenging words, important concepts. Postgrad Med J 2018;94:238-43.
48. Willmott L, White B, Gallois C et al. Reasons doctors provide futile treatment at the end of life: a qualitative study Journal of Medical Ethic.2016;42:496-503.
49. Lightbody CJ et al. Impact of a treatment escalation/limitation plan on non-beneficial interventions and harms in patients during their last admission before in-hospital death. BMJ Open 2018; 8: e024264. doi: 10.1136/bmjopen-2018-024264
50. Bouttell J et al. Economic impact of reduction in non-beneficial interventions following the introduction of a treatment escalation / limitation plan. Int. J. Qual. Health Care. 2020; 32(10):694-700 doi: 10.1093/intqhc/mzaa132
51. Taylor DR et al., A case-controlled study of relatives' complaints concerning patients who died in hospital: the role of treatment escalation / limitation planning. Int. J. Qual. Health Care. 2020; 32: 212-218. doi: 10.1093/intqhc/mzaa008.
52. Wilder-Smith A et al. Antimicrobial use and misuse at the end of life: a retrospective analysis of a treatment escalation/limitation plan. J. R. Coll. Physicians Ed. 2019; 49: doi: 10.4997/JRCPE.2019.XXX
53. Becherucci F, Roperto RM, Materassi M et al. Chronic kidney disease in children. Clin Kidney J. 2016;9(4):583-591. doi:10.1093/cjk/sfw047
54. Barnett K, Mercer S, Norbury M et al. Epidemiology of multimorbidity and implications for healthcare, research and medical education: a cross-sectional study. Lancet. 2012; 380(9836): 37-43. doi: 10.1016/S0140-6736(12)60240-2.
55. Scottish Government. Polypharmacy Model of Care Group. Polypharmacy Guidance, Realistic Prescribing 3rd Edition, 2018. Available from: <https://www.therapeutics.scot.nhs.uk/wp-content/uploads/2018/04/Polypharmacy-Guidance-2018.pdf> [Accessed 22nd February 2021]
56. Mair A, Fernandez-Llimos F, Alonso A, Harrison C, Hurding S, Kempen T et al. The Simpathy consortium. Polypharmacy Management by 2030: a patient safety challenge. 2nd edition. Coimbra SIMPATHY Consort. 2017: Coimbra SIMPATHY Consort. Available from: www.iSimpathy.eu. [Accessed 22nd February 2021]
57. Implementing Simulating Innovation in the Management of Polypharmacy and Adherence Through the Years: Project Executive Summary. September 2020. Available from: <https://www.isimpathy.eu/downloads/iSIMPATHY-Executive-Summary.pdf?v=4> [Accessed 13th February 2021]

58. Randomised Evaluation of COVID-19 Therapy. RECOVERY. Available from: www.recoverytrial.net [Accessed 22nd February 2021].
59. A Randomised, Embedded, Multi-factorial, Adaptive Platform Trial for Community-Acquired Pneumonia. REMAP-CAP. Available from: <http://www.remapcap.org/>. [Accessed 22nd February 2021].
60. Genetics of Mortality in Critical Care. GenOMICC. Available from: <https://genomicc.org/> [Accessed 22nd February 2021].
61. University of Oxford. The Oxford Vaccine. Available from: <https://www.research.ox.ac.uk/Area/coronavirus-research/vaccine>. [Accessed 22nd February 2021]
62. Marmot M, Allen J, Goldblatt P, Herd E, Morrison J. 2020. Build back fairer: the COVID-19 Marmot Review. The pandemic, socioeconomic and health inequalities in England. London: Institute of Health Equity
63. Popham F, Boyle P. Assessing socio-economic inequalities in mortality and other health outcomes at the Scottish national level. Final report for the Scottish Collaboration for Public Health Research and Policy. University of St Andrews; 2011. Available from: <http://www.scphrp.ac.uk/wp-content/uploads/2014/05/Assessing-socio-economic-inequalities-in-mortality-and-other-health-outcomes.pdf> [Accessed January 2016].
64. National Records of Scotland. Life Expectancy in Scottish Areas 2016-2018. 2019. Available from: <https://www.nrscotland.gov.uk/files/statistics/life-expectancy-areas-in-scotland/16-18/life-expectancy-16-18-publication.pdf> [Accessed 22nd February 2021]
65. McCartney G, Collins C, MacKenzie M. What (or Who) causes health inequalities: theories, evidence and implications? Health Policy 2013; 113: 221– 227.
66. Piggot J, Williams C, McLeod S, Barton J. 2004. A Qualitative Study of Support for Young People who Self-Harm in Residential Care in Glasgow in Scottish Journal of Residential Child Care. Pg 45-54.
67. Scottish Government. Health and homelessness in Scotland: research. 2018. Available from: <https://www.gov.scot/publications/health-homelessness-scotland/> [Accessed 22nd February 2021]
68. Van Cleemput P. Health care needs of Travellers. Archives of Disease in Childhood 2000; 82: 32-37.
69. Walsh D, Buchanan D, Douglas A, Erdman J, Fischbacher C, McCartney G, Norman P, Whyte B. Increasingly diverse: the changing ethnic profiles of Scotland and Glasgow and the implications for population health. Applied Spatial Analysis & Policy 2019; 12(4): 983-1010 <https://doi.org/10.1007/s12061-018-9281-7>.
70. McCartney G, Popham F, McMaster R, Cumbers A. Defining health and health inequalities. Public Health. 2019; 172: 22–30, doi: 10.1016/j.puhe.2019.03.023.
71. Walsh D, Lowther M, Reid K, McCartney G. Can Scotland achieve its aim of narrowing health inequalities in a post-pandemic world? Public Health in Practice 2020; 1: 100042, <https://doi.org/10.1016/j.puhip.2020.100042>.
72. McCartney G, Hearty W, Arnot J, Popham F, Cumbers A, McMaster R. Impact of Political Economy on Population Health: A Systematic Review of Reviews. American Journal of Public Health. 2019; 109: e1_e12, <https://doi.org/10.2105/AJPH.2019.305001>.

73. Scottish Government. Food insecurity and poverty - United Nations: Scottish Government response. 2021. Available from: <https://www.gov.scot/publications/scottish-government-response-un-food-insecurity-poverty/pages/9/> [Accessed 22nd February 2021]
74. Norström F, Virtanen P, Hammarström A, Gustafsson PE, Janlert U. How does unemployment affect self-assessed health? A systematic review focusing on subgroup effects. BMC Public Health. 2014;14:1310. doi:10.1186/1471-2458-14-1310
75. Unicef. The United Nations Convention on the Rights of the Child. 1990. Available from: [https://downloads.unicef.org.uk/wp-content/uploads/2016/08/unicef-convention-rights-child-uncrc.pdf?_adal_sd=www.unicef.org.uk.1613929131470&_adal_ca=so%3DGoogle%26me%3Dorganic%26ca%3D\(not%2520set\)%26co%3D\(not%2520set\)%26ke%3D\(not%2520set\).1613929131470&_adal_cw=1613929100472.1613929131470&_adal_id=3ca3bf33-c1dc-44a7-a78e-ef64dfab1b41.1613929100.2.1613929100.1613929100.ad182c7c-f49c-433e-8a99-7922e949dedc.1613929131470&_ga=2.102704513.1802404994.1613929100-762329450.1613929100](https://downloads.unicef.org.uk/wp-content/uploads/2016/08/unicef-convention-rights-child-uncrc.pdf?_adal_sd=www.unicef.org.uk.1613929131470&_adal_ca=so%3DGoogle%26me%3Dorganic%26ca%3D(not%2520set)%26co%3D(not%2520set)%26ke%3D(not%2520set).1613929131470&_adal_cw=1613929100472.1613929131470&_adal_id=3ca3bf33-c1dc-44a7-a78e-ef64dfab1b41.1613929100.2.1613929100.1613929100.ad182c7c-f49c-433e-8a99-7922e949dedc.1613929131470&_ga=2.102704513.1802404994.1613929100-762329450.1613929100) [Accessed 22nd February 2021]
76. Scottish Government. Scottish Child Payment: Equality Impact Assessment. 2020. Available here: <https://www.gov.scot/publications/scottish-child-payment-impact-assessments-eqia/> [Accessed 22nd February 2021].
77. Scottish Government. Equity Audit. Deepening the understanding of the impact COVID-19 and school building closures had on children from socio-economically disadvantaged backgrounds and setting clear areas of focus for accelerating recovery. 2021. Available from: <https://education.gov.scot/media/2ygfjxhd/equityaudit.pdf> [Accessed 22nd February 2021]
78. Scottish Government. Access to free sanitary products: BRIA. 2018. Available from: <https://www.gov.scot/publications/access-free-sanitary-products-programme-government-commitment-business-regulatory-impact/pages/1/> [Accessed 22nd February 2021]
79. Luchenski Serena, Maguire N, Aldridge R, Hayward A, Story A, Perri P. What works in inclusion health: overview of effective interventions for marginalised and excluded populations. 2018; 391(10117): 266-280
80. Scottish Government. A fairer Scotland for all: race equality action plan and highlight report. 2017-2021. Available from: <https://www.gov.scot/publications/fairer-scotland-race-equality-action-plan-2017-2021-highlight-report/> [Accessed 22nd February 2021]
81. Davidson EM, Douglas A, Villarroel N, Dimmock K, Gorman D, Bhopal RS. Raising ethnicity recording in NHS Lothian from 3% to 90% in 3 years: processes and analysis of data from Accidents and Emergencies. Journal of Public Health. 2020; fdaa202, <https://doi.org/10.1093/pubmed/fdaa202>
82. Malcolm M, Frost H, Cowie J. Loneliness and social isolation causal association with health-related lifestyle risk in older adults: a systematic review and meta-analysis protocol. Syst Rev. 2019;8(1):48. Published 2019 Feb 7. doi:10.1186/s13643-019-0968-x
83. Scottish Government. Scotland's Digital Strategy. Evidence Discussion Paper. 2017. Available from: <https://www.gov.scot/binaries/content/documents/govscot/publications/consultation-paper/2017/03/scotlands-digital-strategy-evidence-discussion-paper/documents/00515576-pdf/00515576-pdf/govscot%3Adocument/00515576.pdf> [Accessed 22nd February 2021]

84. National Records of Scotland: Avoidable Mortality,2019. Available from: <https://www.nrscotland.gov.uk/files/statistics/avoidable-mortality/2019/avoidable-mortality-19-report.pdf> [Accessed 15th February 2021]
85. Scottish Government. Scottish Health Survey 2019 - volume 1: main report.2020. Available from: <https://www.gov.scot/publications/scottish-health-survey-2019-volume-1-main-report/>. [Accessed 15th February 2021]
86. Semple S, Dobson R, Sweeting H on behalf of the Tobacco in Prisons (TIPs) research team et al. The impact of implementation of a national smoke-free prisons policy on indoor air quality: results from the Tobacco in Prisons study. *Tobacco Control* 2020; 29:234-236.
87. Public Health Scotland. Alcohol related hospital statistics. Scottish financial year 2019 to 2020. Available from: [Alcohol Related Hospital Statistics 17 November 2020 - Data & intelligence from PHS \(isdscotland.org\)](https://www.isdscotland.org/Alcohol-Related-Hospital-Statistics-17-November-2020-Data-&Intelligence-from-PHS) [Accessed 22nd February 2021]
88. O'Donnell A, Anderson P, JanéLlopis E, Manthey J, Kaner E, Rehm J et al. Immediate impact of minimum unit pricing on alcohol purchases in Scotland: controlled interrupted time series analysis for 2015-18*BMJ* 2019; 366 :l5274
89. National Records Scotland. Alcohol Deaths. 2020. Available from: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/alcohol-deaths> [Accessed 15th February 2021]
90. Scottish Government. Preventing obesity in early years. 2020. Available from: <https://www.gov.scot/news/preventing-obesity-in-early-years/> [Accessed 22nd February 2021]
91. Scottish Government. A healthier future: Scotland's diet and health weight delivery plan. 2018. Available from: <https://www.gov.scot/publications/healthier-future-scotlands-diet-healthy-weight-delivery-plan/pages/8/> [Accessed 22nd February 2021]
92. Nagamatsu LS, Flicker L, Kramer AF et al. Exercise is medicine, for the body and the brain *British Journal of Sports Medicine* 2014;48:943-944.
93. Nieman DC, Pence BD. Exercise immunology: Future directions. *J Sport Health Sci.* 2020 Sep;9(5):432-445. doi: 10.1016/j.jshs.2019.12.003. Epub 2019 Dec 30. PMID: 32928447; PMCID: PMC7498623.
94. Scottish Government. Drug-related death statistics 2019. 2020. Available from: <https://www.gov.scot/news/drug-related-death-statistics-2019/> [Accessed 15th February 2021]
95. Barnsdale L, Gounari X, Graham L. The National Drug-Related Deaths Database (Scotland) Report. Analysis of Deaths occurring in 2015 and 2016. Edinburgh, ISD Scotland, 2018.
96. Hart JT. The Inverse Care Law, *The Lancet*, 1971;297(7696): 405-412. [https://doi.org/10.1016/S0140-6736\(71\)92410-X](https://doi.org/10.1016/S0140-6736(71)92410-X).
97. Mercer SW, Fitzpatrick B, Guthrie B et al. The CARE Plus study – a whole-system intervention to improve quality of life of primary care patients with multimorbidity in areas of high socioeconomic deprivation: exploratory cluster randomised controlled trial and cost-utility analysis. *BMC Med* 14, 88 (2016). <https://doi.org/10.1186/s12916-016-0634-2>

98. Mercer S, Fitzpatrick B, Gourlay G, Voit G, McConnachie A, Watt GCM. More time for complex consultations in a high-deprivation practice is associated with increased patient enablement. *British Journal of General Practice*. 2007; 57 (545): 960-966.
99. Marmot M. Fair Society, Healthy Lives: The Marmot Review. London: Strategic Review of Health Inequalities in England post-2010; 2010.
100. Frenk J, Chen L, Bhutta ZA et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet*. 2010; 376(9756): 1923-1958
101. Greenberg N, Docherty M, Gnanapragasam S et al. Managing mental health challenges faced by healthcare workers during COVID-19 pandemic. *BMJ*. 2020; 368:m1211
102. Lai J, Ma S, Wang Y et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open*. 2020; 3(3): e203976.
103. Hadlaczky G, Hökby S, Mkrtchian A et al. Mental Health First Aid is an effective public health intervention for improving knowledge, attitudes, and behaviour: a meta-analysis. *Int Rev Psychiatry*. 2014; 26(4): 467-75. doi: 10.3109/09540261.2014.924910. PMID: 25137113.
104. French T. A Vision for Technology and Digital in Social Care. *Scottish Care*. 2020
105. Cavanagh N, Cockett G, Heinrich C et al. Compassion fatigue in healthcare providers: A systematic review and meta-analysis. *Nurs Ethics*. 2020; 27(3): 639-665.
106. Mid Staffordshire NHS Foundation Trust Public Inquiry. 2013. Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry: Executive summary.
107. Unwin J. Kindness, Emotions and Human Relationships: The blind spot in public policy. Dunfermline: Carnegie UK Trust 2018. Available from: https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2018/11/13152200/LOW-RES-3729-Kindness-Public-Policy3.pdf [Accessed 13th February 2021]
108. West M, Eckert R, Collins B et al. Caring to Change: How compassionate leadership can stimulate innovation in healthcare. The King's Fund. May 2017
109. Wake M, Green W. Relationship between employee engagement scores and service quality ratings: analysis of the National Health Service staff survey across 97 acute NHS Trusts in England and concurrent Care Quality Commission outcomes (2012–2016). *BMJ Open*. 2019; 9:e026472
110. West M, Dawson J. Employee Engagement and NHS Performance. The King's Fund. 2012
111. Scottish Government. Everyone Matters: 2020 Workforce Vision. 2013
112. West M, Dawson J, Kaur M. Making the difference: Diversity and inclusion in the NHS. The Kings Fund. 2015
113. Qureshi K, Meer N, Hill H. 'Different but Similar? BAME Groups and the Impacts of Covid-19 in Scotland. In: Meer N, Akhtar S, Davidson N. Taking Stock: Race Equality in Scotland. London: Runnymede. 2020

114. Scottish Government. Response to recommendations of the Expert Reference Group on COVID-19 and Ethnicity. 2020. Available from: <https://www.gov.scot/publications/expert-reference-group-on-covid-19-and-ethnicity-letter-from-the-minister-for-older-people-and-equalities---november-2020> [Accessed 13th February 2021]
115. General Medical Council. National Training Survey: summary of results. October 2020. Available from: https://www.gmc-uk.org/-/media/documents/nts-results-2020---summary-report_pdf-84390984.pdf. [Accessed 13th February 2021]
116. Gomez LE, Bernet P. Diversity improves performance and outcomes. J Natl Med Assoc. 2019; 111(4): 383-392
117. IPCC. Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report. Geneva, Switzerland : World Meteorological Organization, 2018
118. IPBES. Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Bonn, Germany : IPBES secretariat, 2019
119. Haines A, Elbi KL, Smith KR, Woodward A. Health risks of climate change: act now or pay later. Lancet. 2014; Vol. 384, pp. 1073-5
120. World Health Organization. "Ambient air pollution: A global assessment of exposure and burden of disease." 2016
121. Barton H, Grant M. A health map for the local human habitat. The Journal for the Royal Society for the Promotion of Health. 2006;126: 252-253
122. Costello A, Abbas M, Allen A, Ball S et al. Managing the health effects of climate change: Lancet and University College London Institute for Global Health Commission. The Lancet. 2009; 373: 1693-1733
123. European Environment Agency. COVID-19 and Europe's environment: impacts of a global pandemic. November 2020. Available from: https://www.eea.europa.eu/publications/covid-19-and-europe-s-at_download/file [Accessed on 23rd December 2020]
124. Arora, S, Bhaukhandi K.D, and Mishra, P.K. Coronavirus lockdown helped the environment to bounce back. Science of The Total Environment. 2020; p.140573.
125. World Meteorological Organisation. Greenhouse Gas Bulletin. November 2020. Available from https://library.wmo.int/index.php?lvl=notice_display&id=21795#.X-NMGOn7RQI [Accessed on 23rd December 2020]
126. Health Care Without Harm and ARUP. Health Care's Climate Footprint: How the health sector contributes to the global climate crisis and opportunities for action. 2019. Available from: <https://noharm-uscanada.org/content/global/health-care-climate-footprint-report> [Accessed 19th February 2021]
127. Watts N, Adger WN, Agnolucci P, Blackstock J et al. Health and climate change: policy responses to protect public health. The Lancet. 2015; Vol. 386, pp. 1861-1914
128. General Medical Council. Outcome for Graduates. 2018. Available from: <https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/outcomes-for-graduates> [Accessed 23rd December 2020]

129. Licchetta, M, & Stelmach, M. Fiscal sustainability analytical paper: Fiscal sustainability and public spending on health. Office for Budget Responsibility, 2016 Available from: https://obr.uk/docs/dlm_uploads/Health-FSAP.pdf [Accessed 19th February 2021]
130. The Organisation for Economic Co-operation and Development. Tackling Wasteful Spending on Health, OECD Publishing, Paris,2017. Available from: https://www.oecd-ilibrary.org/social-issues-migration-health/tackling-wasteful-spending-on-health_9789264266414-en [Accessed 19th February 2020]
131. Aus der Beek T, Weber FA, Bergmann A, Hickmann S, Ebert I, Hein A, Küster A. Pharmaceuticals in the environment–Global occurrences and perspectives. Environmental toxicology and chemistry. 2016;35(4):823-35
132. Wellcome, US Centers for Disease Control and Prevention and UK Science and Innovation Network. Initiatives for Addressing Antimicrobial Resistance in the Environment: Current Situation and Challenges. London : Wellcome Trust, 2018. Available from: <https://wellcome.org/sites/default/files/antimicrobial-resistance-environment-report.pdf> [Accessed 19th February 2020]
133. Mortimer F, Isherwood J, Wilkinson A, Vaux E. Sustainability in quality improvement: redefining value. Future healthcare journal. 2018 ;5(2):88
134. Janson C, Henderson R, Löfdahl M, Hedberg M, Sharma R, Wilkinson AJ. Carbon footprint impact of the choice of inhalers for asthma and COPD. Thorax. 2020 ;75(1):82-4

Being physically active during COVID-19

The infographic is set against a blue sky with a yellow sun on the left. At the top, five dark blue callout boxes list benefits: 'Increase productivity', 'Sleep well', 'Reduce symptoms of anxiety and depression', 'Improve your mood', and 'Increase energy levels'. Below this is a house-shaped frame divided into two sections. The top section, 'Working from home', features a clock icon, a walking figure, and a computer monitor labeled 'Online meeting'. The bottom section, 'Activity ideas', features a staircase with a walking figure, musical notes, a yoga figure, and a TV labeled 'Yoga online'. At the bottom, three white callout boxes provide additional advice: 'Some activity is good, more is better', 'Connect with friends via text and social media to stay active', and 'Make use of online activity resources'. The background at the bottom is green with small grass icons.

Benefits of physical activity:

- Increase productivity
- Sleep well
- Reduce symptoms of anxiety and depression
- Improve your mood
- Increase energy levels

Working from home

Break up time spent sitting still

Set 30 minute timers and move around for 2 minutes

If possible stand up for calls and meetings

Activity ideas

- Walk laps inside your house
- Have a dance
- Attend an online class
- Body weight exercises (e.g. lunges and squats)
- Go up and down your stairs

Additional advice:

- Some activity is good, more is better
- Connect with friends via text and social media to stay active
- Make use of online activity resources

Infographic created by Steven Hanson - email: hello@floating-boat.co.uk
This infographic is based on the BJSM blog
Be calm, be active: simple ways to boost your physical activity during COVID-19

Continue reading

THE GOVAN SHIP PROJECT



(Social & Health Integration Partnership)

ABOUT THE PROJECT

1 AIMS

- Adopt a person centred focus based on need and not condition or criteria
- Develop multi-disciplinary team working and challenge embedded silo approaches
- Identify opportunities to shift demand through better use of services
- Create capacity for General Practitioners to increase their support for more complex patients



2 CORE COMPONENTS

- Additional GP Capacity
- Aligned Social Work Staff
- Monthly MDT Meetings

3 ADDITIONAL GP CAPACITY:

Aided:

- Extended Consultations
- Case review / planning
- Attendance at external hearings
- Proactive home visiting
- GP leadership Development
- Team building
- Mentoring early career GPs



4 SYSTEM BENEFITS

- Improved and better co-ordinated service provision
- Multi-disciplinary team working
- Shared learning
- Horizontal accountability
- Creating and releasing GP capacity
- Improved workforce morale, 'time to care'
- Improved GP recruitment and retention



5 PEOPLE BENEFITS

- Person focussed approach
- Addressing the Inverse Care Law (those who most need care are least likely to seek or receive it) in a Deep End, high deprivation community
- Proactive, not reactive, clinical management of people with complex health and social care needs
- Improved co-ordination and shared care
- Early intervention to avoid escalation

6 WHO BENEFITTED



- Addressing deprivation - More people from the poorest areas
- Addressing complex patients - Double and triple the numbers of those with multi & poly morbidity (2+ and 4+ conditions)
- Addressing families - More Females (17-44, frequently family related)
- Addressing Unscheduled Care - Frequent A&E visitors

Key Contacts: Dr John Montgomery, Lead GP, john.montgomery@nhs.net
Vince McGarry, Project Manager, vince.mcgarry@ggc.scot.nhs.uk

© Crown copyright 2021



This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at www.gov.scot

Any enquiries regarding this publication should be sent to us at
The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

First published by The Scottish Government, March 2021
ISBN: 978-1-83960-422-5

Published by The Scottish Government, March 2021