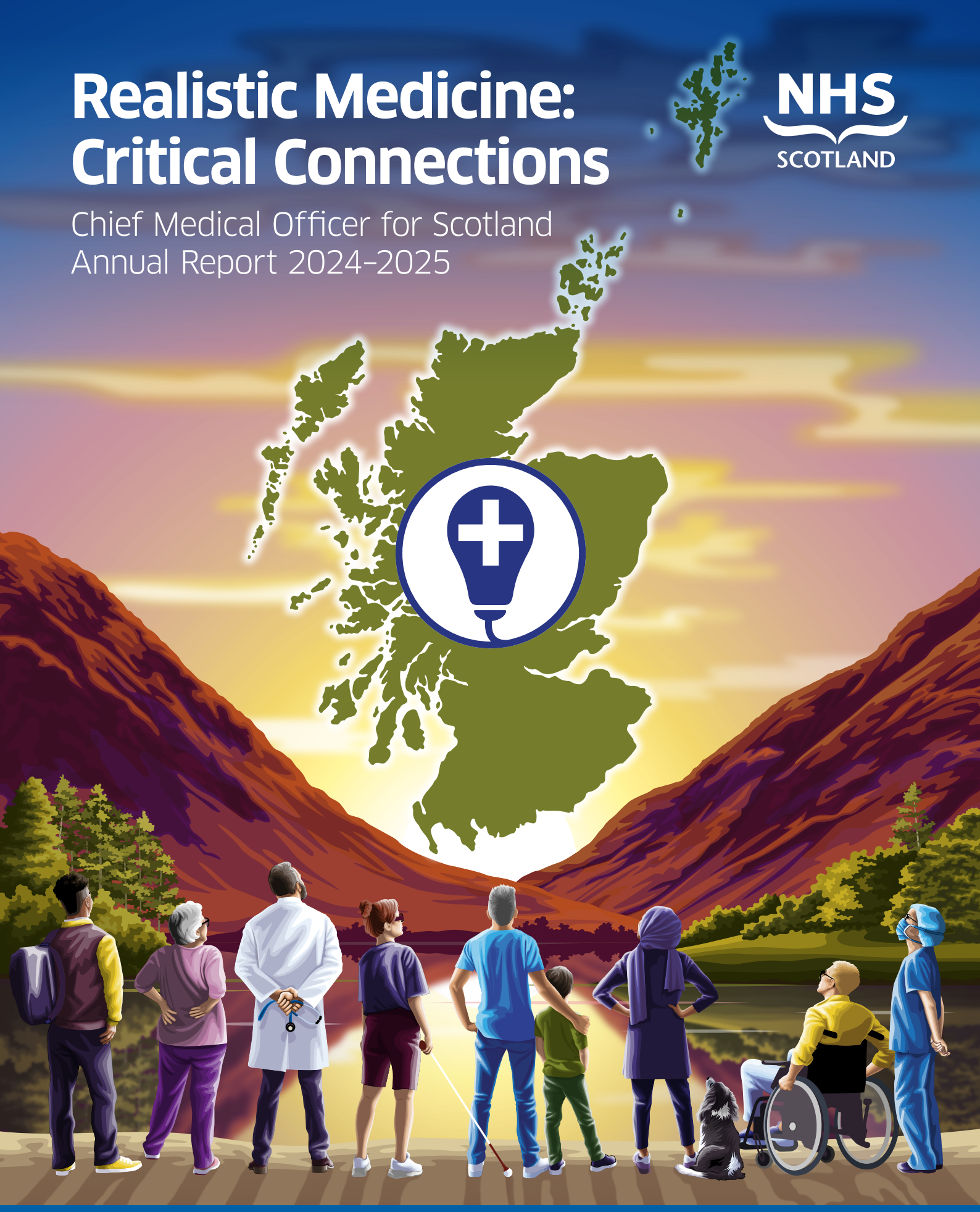
Realistic Medicine: Critical Connections

NHS SCOTLAND

Chief Medical Officer for Scotland
Annual Report 2024–2025



REALISTIC MEDICINE

Scottish Government
Riaghaltas na h-Alba

The Evolution of Realistic Medicine

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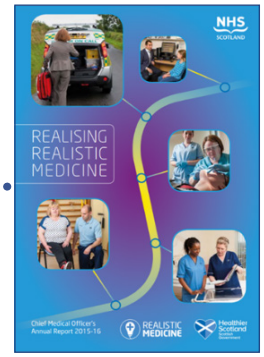

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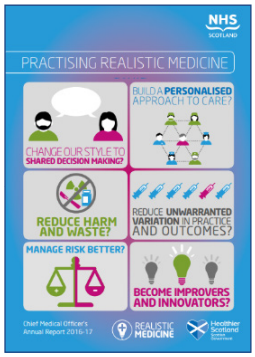

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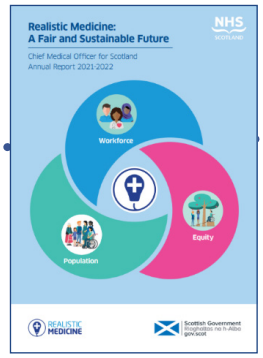

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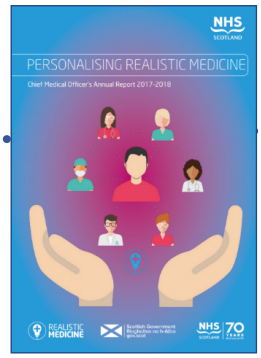

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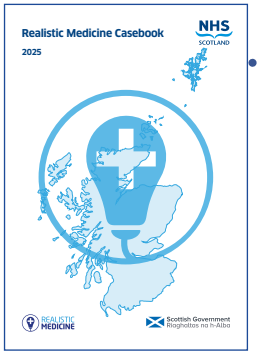

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2024

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Foreword

Five years ago, we found ourselves amid a health and societal crisis as a pandemic caused tragedy and turmoil across the world. The impacts were profound and lasting, affecting not only our health, but impacting people socio-economically too. Those moments will be indelibly marked in my memory, as will the power of the human connections that I relied on to help me navigate my own experience of that time.

Connection is critical not only in the hardest of times – connection and belonging are essential for our wellbeing. It's why people seek out conversation, companionship and community. At the 78th World Health Assembly of WHO in May 2025, member states approved **a first ever resolution on fostering social connection for improving health** and its essential role in addressing loneliness, social isolation and inequities in health.

The challenges we face as health and care professionals still feel ever present. System pressures mean that we are rightly focussed on trying to improve access to the care we provide and yet, while a focus on efficiency is undoubtedly required, we must be mindful of the risk of losing vital connection to the people we care for and the consequent risk of providing sub-optimal, industrialised care. We must not, inadvertently, become distant from the people we care for. This is neither good for our patients nor for us as professionals. In pursuing system renewal, we must ensure that connection and purpose lie at the heart of reform. It is connection that will sustain us.

We must do what we can to foster wellbeing – support healthy ageing, encourage greater upstream prevention of disease and support our communities to overcome loneliness and isolation. If we can support people to remain healthier for longer, not only can we achieve significant improvements in their health, but we can also enable people to remain economically active and have an active role in their families and communities. Their experience of life and connection may well be enhanced too.

We can achieve these ambitions and create a carbon-neutral, climate-resilient, equitable and sustainable system by practising **Realistic Medicine**. We must provide **careful and kind care**, recognise the critical importance of continuity and relationship-based care and take account of biography as well as the biology of the people we serve. Careful care that is founded on principles of quality, safety and the tailored use of best evidence; that recognises people's experience of illness is unique to their circumstances and priorities, not just their biological data. Kind care respects a person's most precious resource, their time, energy and attention, and ensures that healthcare's footprint upon these resources is minimally disruptive.

The triple planetary health crisis – climate change, loss of biodiversity and air pollution – continues to be the greatest global threat to human health. It remains, in my view, a public health emergency. Our connection to the planet is fundamental to all life around us and we must increase our efforts to reverse the harmful footprint that humans continue to leave on its health. Our connection to the planet can also enhance our health and well-being. Harnessing nature for this purpose can create a virtuous cycle of improving human and planetary health through greener, more sustainable, pathways of care.

In my report this year, I highlight the importance of the human relationship in health and care and describe the approach that I continue to champion for both our citizens and our workforce. Careful and kind care is what I want to receive myself and for those closest to me. We must nurture relationships and cultivate connections with the people we care for and with each other. By protecting and strengthening our connections across organisations, we can maximise our contribution to the communities we serve, our system and our planet.

Professor Sir Gregor Smith
Chief Medical Officer for Scotland

Enabling careful and kind care

Focus on understanding what matters to the people we care for and focus on helping them achieve their goals.

As care providers we often enter people's lives at a moment of vulnerability; we must respect this, and hear and seek to understand the voice of those we serve in order to deliver the outcomes that matter to people we care for. Shared decision making sits at the heart of doing the right thing.

Balance biography and biology when applying evidence-informed practice.

We must ensure the right balance between the science and the art of care; the best care has biometric and biographical care in equilibrium, balancing evidence, professional judgement, people's preferences and compassion.

Kindness and compassion sit at the heart of the way we deliver care.

We are all human and vulnerability is exhausting; we all have physical and emotional limits and a tolerance to risk that is dynamic as a consequence. We should reasonably expect the people and system in which we work to acknowledge and respect this, ensuring that we are supported to practise compassionately and manage clinical risk appropriately.

Collaboration is key to providing care that people value and greater job satisfaction.

We should give way on professional and personal prerogatives in order to be part of something greater; define what we do as individuals as part of a wider multidisciplinary team and nurture and protect civility, trust and belonging within it. Our teams are greater than the sum of their individual parts, and they will help to support and sustain us.

Use resources wisely to provide sustainable care for our service and our planet.

However well intentioned, some care can be wasteful, risking harm to people and the environment; using a value based approach allows us to balance personal and population-based care better so maintaining, and making best use of, all our resources.

Measure the right things including outcomes that matter to people.

Measurement works best when it is meaningful, proportionate, transparent and used for the purpose of improving quality; when measurement drives transactional care it risks moral injury and harm to staff as well as the people we care for and must be avoided.

Chapter 1:

Connection

Just over 30 years ago, I started my first job as a resident doctor at Glasgow Royal Infirmary with one destination in mind– to become a GP. I wanted to be part of my community, connecting with the people I was caring for.

I have been fortunate – not only did I find that sense of connection as a GP, I have found it in every team that I have worked in along the way. The sense of belonging that I have enjoyed is, I think, aided by feeling part of a team, where my contribution was valued and where I felt supported and trusted by my colleagues. This is especially important at the outset of our careers, but for many, this sense of connection and belonging is **not as easy to find in the healthcare system today**. We must improve this.

System pressures may tempt us to focus on increasing efficiencies and meeting targets. This is perhaps understandable given the unmet need that we witness in the backlog and I am grateful for the efforts being made to reduce this in a very challenging landscape. I am concerned, however, that if we apply this lens of efficiency inappropriately to all aspects of healthcare, we may lose that vital connection and provide sub-optimal, transactional, industrialised care instead. There is a very real risk that this loss of connection will prevent us from seeing the people we care for as they wish to be seen and understanding what matters to them. It is this transactional approach to care that can lead to overtreatment, potential harm, wasted resources and to decision regret.

I know how hard you are working to provide care that people value and I want to thank you for your continued dedication and effort on behalf of our population. You continue to make a vital contribution to people's lives at times when they are often at their most vulnerable or anxious.

In April, the Scottish Fiscal Commission published its **second assessment of the Scottish Government's fiscal sustainability**. Contrary to previous predictions, Scotland's population is now predicted to grow due to positive net migration, rather than falling in the medium term.

The health of the population affects the sustainability of our public finances. Health spending is the largest part of the Scottish Budget. Based on current trends, health and social care spending is projected to rise from around 40 per cent of Scottish devolved public spending in 2029–2030, to almost 55 per cent in 2074–2075. This could pose significant issues for fiscal policy, but more importantly will reflect a rising burden of disease carried by people across society and disproportionately by those with greater socioeconomic disadvantage.

Health spending tends to rise with age, meaning an ageing population could lead to the need for more health spending in future. A greater proportion of Scotland's population is predicted to be older over the next 25 years, and how the population's health changes as it ages can influence the scale of health-related public spending. If we can support the people we care for to age well and remain healthier for longer, significant improvements in health could be achieved as well as supporting people to be economically active for longer too.

Much of the disease that we will face in future can be prevented and we must pursue this objective with urgency. The **Scottish Burden of Disease** study suggests that there will be a 21 per cent rise in illness experienced by our population by 2043, two-thirds of which is accounted for by cardiovascular disease, cancer and neurological conditions. However, health care systems – including ours – tend to have a much greater focus on treatment rather than prevention.

Cardiovascular disease (CVD) is the second largest burden of disease in Scotland, and the second largest cause of mortality after cancer, accounting for around 25% of all deaths. In 2021 alone, there were 4,478 premature deaths (in those under 75 years) from CVD. **A subanalysis of the Global Burden of Disease 2021 study, published earlier this year,** suggests that stalling life expectancy during 2011–2019 across many countries, was largely driven by increased mortality from CVD and cancers. Countries which maintained improvements in mortality from these conditions during this period maintained their life expectancy during the Covid–19 pandemic. Therefore, we must intensify our efforts to improve mortality, and the health resilience of our population, in these areas.

While landmark legislation to create a tobacco-free generation in the UK will further improve cardiovascular disease prevention, it will be insufficient to deliver success on its own. In response to changes in cardiovascular outcome data in 2022, **the four UK Chief Medical Officers called for the restoration and extension of secondary prevention of disease** and issued a challenge to reach populations that we have been unable to reach effectively before.

It is encouraging therefore that NHS Scotland and the Scottish Government have developed a programme with the intention of reducing avoidable CVD deaths by 20% over the next 20 years by addressing common risk factors; high blood pressure, high lipids (LDL-cholesterol), high blood glucose, smoking and obesity. This will ensure that prevention efforts are targeted to groups with historically low uptake. That includes addressing disparities associated with ethnicity, mental health and socioeconomic status.

It is critical that we intervene upstream of this disease by tackling the underlying issues that fundamentally determine health. This includes tackling harmful food environments and physical inactivity which contribute to rising levels of obesity – a precursor to chronic diseases such as diabetes, cardiovascular disease and many cancers. **A study examining historic trends in weight estimates** that 1.5 million people in Scotland will exceed the threshold for obesity by 2040. This predicted trend estimates that male obesity will increase by 5%, whilst female obesity will increase by 19%.

It is estimated that 10% of all health loss in Scotland is attributable to overweight and obesity with the annual cost to Scotland of obesity estimated to be £5.3 billion. In a joint statement, published in August 2024, the Scottish Directors of Public Health said: "A multifaceted, prevention-focused approach that improves the food environment through regulation, taxation, product reformulation, and affordability, is essential to addressing rates of excess weight."

Creating a sustainable system

We must also change the way we deliver care to consistently provide **careful and kind care**, recognising the critical importance of continuity and relationship-based care in accounting for the biography as well as the biology of the people we serve. This can only be done as equal partners with our communities, viewing each person's individuality and connecting with them through trust, continuity and shared decision making.

A new social contract with the communities we serve may assist the transition to this new model of care, underpinned by prevention of disease and with a strengthened primary and community care sector, comprised of interconnected multi-professional, multi-sector communities of practise, that use new data models to prevent disease and to focus on the planning of care.

Case Study: ANGUSalive

I was inspired to see first hand the approach being taken to prevention and proactive care in Angus, through a collaboration that connects the local Health and Social Care Partnership, Angus Council and the ANGUSalive culture, sport and leisure trust.

The "Be Active… Live Well" programme and "Healthy Steps Angus" health walks programme are excellent approaches that are having immediate benefits for the people taking part, and which support them to invest in their future health. These programmes are helping people create and maintain connections with each other and their communities:

> "My family moved to Montrose two and a half years ago and I was unable to walk down to the beach. Just before my last class I managed to walk down to the beach and back up. This is probably my biggest health achievement in over a decade. I believe I will be able to reduce my reliance on my wheelchair and open up my social opportunities." – **Participant**

> "Health walks have been a lifeline since I lost my husband. I am now walking twice weekly with Health Walk groups and meeting new friends made out on the walks." – **Participant**

The approach being taken in Angus demonstrates exactly how the principles of **Realistic Medicine** and **Value Based Health and Care** can encourage the sustainability we need. By prioritising preventative care that achieves the most meaningful outcomes for people we can prevent illness while optimising the considerate use of resources across the entirety of the population.

It is by practising **Realistic Medicine** that we will establish this culture and foster the conditions required to create a fairer, more sustainable health and care system. This approach helps support healthier lives, reduces unnecessary treatments and hospitalisations, minimising healthcare waste and ensures optimal use of natural resources, public funds and value for money.

Connection

Connection is the key to understanding and supporting the people we care for to live longer, healthier lives by focusing on disease prevention and healthy ageing. Connection is the key to tackling loneliness. Connection with nature improves our wellbeing. Connecting the teams we work with and the communities we serve is the key to better job satisfaction.

Connection binds us together. It shapes relationships, ideas and even the course of events over time. Connection fuels empathy, sparks creativity and helps to bring meaning to our lives. Social disconnection and detachment, however, can have wide-ranging and serious effects, impacting on our mental and physical health and our sense of wellbeing. We have all, I suspect, experienced times when we feel less connected to others, or have purposely detached in order to aid reflection or to recharge. But chronic, unconscious disconnection can lead to greater risk to our health.

> "When we try to pick out anything by itself we find that it is bound fast by a thousand invisible cords that cannot be broken, to everything in the universe." – **John Muir**

Here, Muir is emphasising the interconnectedness of all things in nature. He reminds us that we are frequently dwarfed by larger considerations. Nothing in the universe exists in isolation, including ourselves. Those "invisible cords" he mentions are the relationships and dependencies that link us and our natural world together: ecosystems, food chains, climate systems, even spiritual and emotional connections.

Muir's reminder of our interconnectedness and the ripple effects of our actions resonate deeply with many of today's pressing issues including:

- **social inequality –** inequality stems from the "cords " connecting us being stretched. The impact can be seen in systemic inequalities, such as disparities in access to education, healthcare and basic needs – often for those who need our help the most, or discrimination because of ethnicity or personal characteristics. Addressing these issues requires us to recognise how societal structures and individual actions contribute to perpetuating or alleviating inequality.
- **climate emergency –** the idea that our actions come back to us as effects is evident in the environmental crisis. Individual and collective choices drive carbon emissions and deforestation. We can all see the impact of our choices on our planet, including extreme weather, polar cap ice loss, rising sea levels, and biodiversity loss. This highlights the need for global cooperation and shared responsibility.
- **mental health awareness –** the "invisible cords" Muir mentions align with the growing recognition of mental health as a shared societal concern as rates of emotional distress and illness increase. Supporting one another emotionally and creating connections with others can strengthen wellbeing across communities.

Muir's words serve as a reminder that our interconnectedness is both a challenge and an opportunity. By acting with empathy and foresight, we can address these issues in ways that benefit everyone.

Empathy is the cornerstone of meaningful human connection and critical in ensuring that we provide **careful and kind care** with consistency. It breaks down barriers, fosters understanding and helps to create a more compassionate society.

Empathy, the ability to understand and share the feelings of another, is not merely a trait but a journey. Our stories and experiences, our biography, guide us through the complexities of human experience.

Empathy and human connection sit at the heart of what it means to be a health and care professional. To care for the planet, is to care for ourselves, our families and our communities; to be proactive in living healthily is not only investing in health for ourselves but contributes also to planetary health. This is the virtuous cycle of mutuality.

Conclusion

In my previous report "**Taking Care"** I suggested that leadership is insufficient by itself to create environments where careful and kind care can flourish in our health and care systems. Organisations are communities of people, not anonymous resources or assets, and ensuring that the natural commitment people want to give is released can only be done through creating a culture of mutual respect, trust and collective engagement. It's our connectedness that's important, characterised by collective responsibility and collaboration, rather than individual vested power and authority. We can do this by nurturing relationships with the people we care for, and with each other.

It is by following these principles, in articulating and protecting our shared purpose to provide careful and kind care, that we can align individual values and effort with organisational goals. By doing this, and protecting and strengthening these connections, across communities and organisations, we will realise the full potential of our workforce in health and social care and maximise the benefit to our citizens.

Earlier this year, I published a compendium of case studies (**The Realistic Medicine Casebook**) showcasing exemplar high value approaches to providing Realistic Medicine. Those case studies show how health and care professionals across Scotland are connecting and collaborating with colleagues, how we are fostering a culture of stewardship – where we take responsibility for the resources we use, and most importantly, how we are connecting with the people we care for through shared decision making, to reduce waste and harm and achieve the outcomes that matter to them.

I am optimistic and encouraged that practising **Realistic Medicine** is clearly helping us to connect and establish the culture and conditions required for a fairer, more sustainable system that is there for us all when we need it.

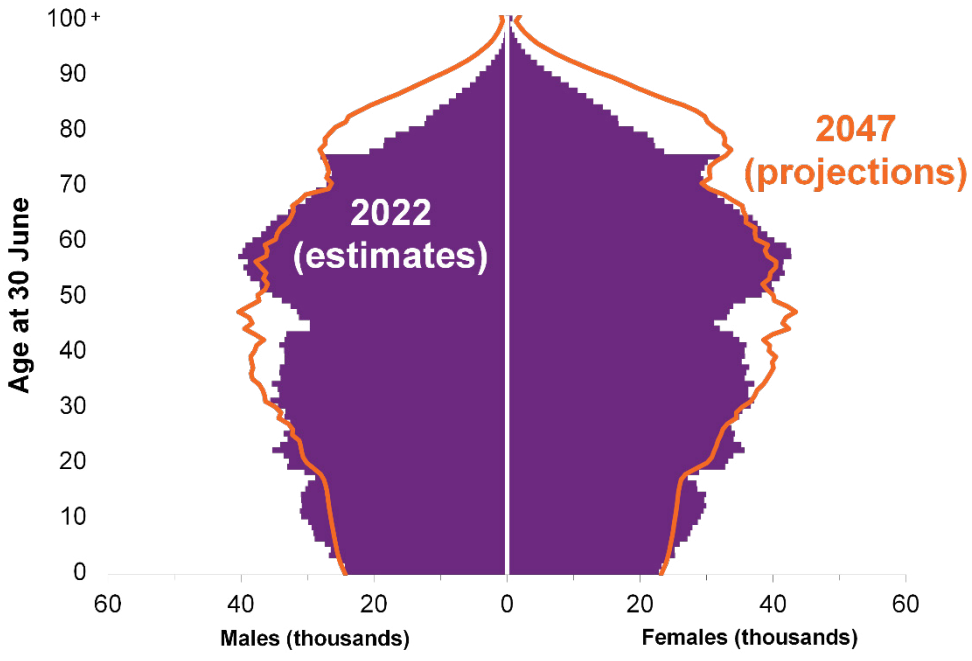
Chapter 2:

Healthy Ageing

This year marks the halfway point of the **United Nation's Decade of Healthy Ageing** (2021–2030).

Given that the proportion of the population represented by older people is set to continue growing significantly, it is perhaps understandable that some feel daunted by the perceived **challenges this presents for our health and care system** and wider society.

Scotland is projected to have more older people and fewer younger people in mid-2047 than in mid-2022



"Old age is like everything else. To make a success of it, you've got to start young." – **Theodore Roosevelt**

The Population Health Framework (expected to be published in June), will set out the need for a focus on health and wellbeing at all stages of life and highlights that this is particularly critical in our early years. However, I would like to focus on the significant and growing contribution older people make to our economy, society, culture and communities.

Ageism is discrimination and is a challenge which we must overcome. The World Health Organization (WHO) suggests that globally, **one in two people are ageist against older people**. Since **anyone can become the target or perpetrator of ageism**, it is important to recognise and eliminate, given the serious and wide-ranging implications for **health**, wellbeing and **opportunities in later life**. Indeed, it has been repeatedly shown that the reinforcement of ageist stereotypes on older people negatively affect their **cognitive abilities, workplace performance** and their own attitudes towards their own place in society.

We must tackle ageism if we are to truly create a society in which we can all flourish in later life for the benefit of everyone in Scotland.

It is worth emphasising the benefits for everyone in a society which promotes and facilitates healthy ageing. By proportion, older people contribute more in volunteering and in childcare and **also provide a significant proportion of unpaid care**. Overall, **they are net contributors to the economy** (even after considering the costs of health and care) through their spending and their unpaid contributions through volunteering. The contributions from older people to the UK economy were estimated to be worth **£40 billion per annum in 2011, and by 2030 are expected to rise to £77 billion**. Furthermore, in 2015, it was estimated that the **unpaid contributions of older people across the European Union (EU) could be worth as much 1.4% of GDP**, more than the defence spend of any EU country at that time.

> "Expenditure in older populations is an investment, not a cost."
> – **Des O'Neill**

The contribution older people make to their communities is clear and will become even more important in the years to come. **"Health equals Wealth"**, and this should banish any notions of ageism when it comes to considering spending and focusing healthcare resources towards promoting healthy living in later life.

The converse is also true: Wealth equals Health. In countries where more is spent on preventing ill-health, older people work more, volunteer more and spend more. **Increasing the preventative health spend by just 0.1% could unlock a 9% increase in annual spending in those aged over 60 as well as additional time for potential volunteering**. At a time when economies, healthcare systems and societies internationally are adjusting to a post-pandemic world, we must fully appreciate and capitalise on the contributions of our older people.

It would be wrong to consider the contribution of older people purely in terms of value to our economies. Older people are vital members of our communities, contributing significantly through their experience, wisdom and skills. The evidence is clear that meaningful intergenerational connections reduce ageist attitudes by decreasing stereotypes and increasing positive perceptions of both older people and ageing itself. In addition, younger people can benefit from building stronger and more diverse social connections.

Case Study: Intergenerational Boat Building in Ayrshire

Since 2010, a network of **intergenerational boat-building projects** has grown across Ayrshire, bringing together older people with young people from local schools and colleges.

The project allows younger people to develop confidence, employability skills and life skills while building intergenerational connections within their local communities. It allows older people to interact with younger people they would not normally meet, to pass on skills and feel valued as older adults.

> "I retired 15 years ago as an engineer expecting to play golf for the rest of my life. Instead I have been building boats with young people. It has really added to my life – I have met some great people and friends"
> – **Harry- Older participant.**

Whilst simultaneously sharing the benefits of their experience of the past, older people also belong at the forefront of addressing our current and future challenges. Research from England suggests that those **aged 70 or over are just as likely to be concerned about climate change as younger people, and that people aged 50 – 69 are as likely to have changed their behaviour as a result as those younger than 30**.

Older people are more likely than any other age group to give time to their communities in the form of volunteering. Volunteering itself has been shown to enhance connection, improve mental health and increase physical activity, **though a major barrier to unlocking the benefits for both older people themselves and their communities is poor health**. Older people support families by providing childcare, enabling the economic contribution of younger generations, as well as serving as the source of trusted wisdom, including health advice.

Enabling everyone to age healthily to maximise these contributions therefore has effects far beyond economic benefits for our health and social care system, now and in the future.

Older people in our workplace communities

Older people make an important contribution to the workforce. A report from the **Global Longevity Centre UK** showed that every third dollar in G20 economies in 2015 was earned by a worker over 50. By 2035, this cohort is projected to generate nearly 40% of all earnings. This means that more younger people could benefit from the experience, coaching and mentorship of their older colleagues – particularly **given that older people tend to form stronger workplace relationships**. Older people also derive benefits from being a part of workplace communities. **A 2017 report from the Institute of Employment Studies** highlights that work is a major source of social connections and interaction, and we know that meaningfully being able to contribute to society through **working provides a sense of purpose and self-esteem**.

Everyone in society stands to gain when older people can bring their talents, wisdom and experience to our workforce and our communities through tackling avoidable ill health and discrimination.

Inequalities in ageing

However, ageing well is not within easy reach for everyone in Scotland.

In terms of the quality of health during years lived, evidence shows that men in our most deprived communities live 26 fewer years in good health than those in the most affluent areas. We also know that **young and middle-aged adults living in the most deprived areas have rates of multimorbidity equivalent to those 10–15 years older in the most affluent areas of Scotland.**

This means that for many in our least affluent communities today at the beginning of their working lives, multimorbidity will set in before they retire. For them, the clock has already started ticking.

While the roots of multimorbidity and ageing poorly can be found in working age adults (and perhaps even younger), it also highlights opportunities for us to intervene.

People who report good health are four times more likely to be still in work between the ages of 50 and 65. Workplaces which contribute to health and wellbeing can have a powerful impact ensuring we reach retirement in better health, and age well.

Encouraging the development of workplaces which contribute to health and wellbeing could be the beginning of a virtuous cycle. The biggest single contributor to economic inactivity amongst adults in Scotland is chronic poor health itself, accounting for nearly 1 in 3 economically inactive adults. Preventing chronic poor health from taking hold means that we could all stand to benefit from investing in workplaces which promote health and wellbeing.

Case Study: Northumbria Healthcare NHS Foundation Trust

Northumbria Healthcare NHS Foundation Trust offer staff 24-hour access to gym facilities and a range of fitness classes for a nominal fee of £1 per month, ensuring affordability and accessibility. Space was repurposed into modern gym facilities across all sites, acknowledging research showing physically active workers take 27% fewer sick days.

Occupational Health and Staff Psychology services are also included to address broader health needs, such as mental health. Additional partnerships with dietetics and **Northumberland Mind** provide workshops on managing stress and improving sleep.

Since the launch of the gym membership programme in April 2022, over 2,700 staff members (25% of the workforce) have signed up. Evaluations has shown substantial improvements in both physical and mental wellbeing among staff participants. One participant, Gail, a Clinical Research Practitioner, reported significant improvements in her physical health and overall fitness, which she attributes to the programme.

Whilst Gail's feedback is encouraging, I am struck by what she, and others stand to gain in the future from employers adopting the approach taken by Northumbria Health.

We know that the most common diseases driving multimorbidity and ageing poorly in Scotland (cardiovascular disease, diabetes mellitus, stroke, chronic obstructive pulmonary disease and dementia) share similar root causes. Obesity, smoking, physical inactivity and alcohol excess all contribute.

We know that public health approaches use an understanding of the population to tackle disease by identifying the causes of ill health and intervening early. The introduction of **Minimum Unit Pricing (MUP)** for alcohol is one such successful public health approach. Through targeting the products cheap relative to strength, **there was an estimated reduction in the number of deaths wholly attributable to alcohol of 13.4%, and a likely reduction in hospital admissions wholly attributable to alcohol of 4.1% during the periods that the studies were carried out**. This was driven by improvements in chronic health outcomes, such as a reduction in alcoholic liver disease. Furthermore, the introduction of MUP was associated with a reduction in deaths and hospitalisations wholly attributable to alcohol amongst the four most deprived deciles in our communities..

Taking a Health in All Policies approach to addressing the shared factors driving multimorbidity and ageing poorly is likely to have benefits for people across the course of their lives.

This is why I am keen that at every opportunity, no matter our role, our specialty or care setting, we take responsibility for engaging the people we care for in this preventative approach. It is only through doing so that we can realise our longer-term goal for everyone: not just living *longer*, but living *longer in good health*.

When we think of our duty of care, we shouldn't think only of the problems that people present with today. We should look forward to their future, understand the longer term outcomes that matter to the people we care for and begin thinking about how we can support the healthy ageing required to achieve them.

Case Study: NHS Ayrshire & Arran Community Appointment Days

The NHS Ayrshire & Arran musculoskeletal physiotherapy service are implementing **Community Appointment Days**, allowing people to access a range of services in one place. By working with Public Health and Health and Social Care Partnerships, they are tailoring each Community Appointment Day to the needs of each community they serve, providing timely access to assessments, health promotion, rehabilitation and voluntary sector support.

Community Appointment Days aim to reduce waiting times and improve access while promoting early self-management. They also provide an opportunity to focus on prevention, bringing services closer to people to assist with their wider health needs. A personalised approach is taken for each attendee, starting with a "What matters to you?" conversation. Smoking cessation, weight loss and dietetic advice are also available, with a view to preventing ill health and inactivity and not compounding the chronicity of the person's initial problem.

Feedback from those who attended the first Community Appointment Day in East Ayrshire showed the event was valued by those who attended:

> "Brilliant! I saw four experts in one day – this would have taken four visits to hospital!"
>
> "Excellent! Increased understanding of condition."
>
> "Glad I came!"

Further Community Appointment Days are planned for North and South Ayrshire soon.

I look forward to seeing how this work develops, and the benefits of promoting a multidisciplinary, careful and kind preventative approach for those who attend.

> "It is not enough for a great nation merely to have added new years to life – our objective must also be to add new life to those years."
> – **John F Kennedy**

Dementia is not an inevitability

Dementia is now **the commonest cause of death in the UK**. The number of cases is rising as people are living longer. It is a common misconception that dementia is inevitable. In fact, **45 per cent of cases are potentially preventable**.

The most common type of dementia is **Alzheimer's disease**, which is associated with the development of **abnormal proteins and structural changes within the brain**. However, **it is not true that everyone who has these changes gets symptoms of dementia and nor is it true that severity of these changes correlates with disease severity**. The **cognitive reserve hypothesis** posits that lifelong experiences, including educational and occupational attainment, and leisure activities in later life can increase the reserve we have to make our brains more resilient against dementia by improving the individual's ability to compensate for the **changes within the brain**.

The Lancet 2024 Commission on Dementia gives cause for optimism, by highlighting that the age-related dementia rates in high income countries are actually falling. This drop is likely the result of interventions such as smoking cessation and treatment of high blood pressure, thus driving a reduction of vascular damage – one of the key mechanisms contributing to the development of dementia. Not only should this cause us to redouble our efforts in applying a prevention-first approach to these risk factors but also prompt us to consider how we can reduce the impact of the other risk factors for which evidence is emerging. The Commission on Dementia also highlights compelling evidence that **untreated visual loss and high LDL cholesterol** are in themselves risk factors – which are within our gift to address through increasing the reach of the work of our optometry and primary care colleagues.

There is increasing evidence that other factors all contribute to the development of dementia – hearing loss, obesity, depression, physical inactivity and alcohol excess. Our healthcare system must address these. Other risk factors, such as having less education and social isolation will also require a coordinated response with other agencies and wider society.

Our shared vision is for a Scotland where people live longer, healthier and fulfilling lives. It is exciting therefore to see Scotland taking a multi-factor approach to improving health and wellbeing across the life course, with a focus on prevention of ill health. It will be set out in the Population Health Framework expected to be published in June.

Meaningful social connections, belonging to supportive communities, and being able to contribute and add value to society through participation in volunteering and work in our later years will help in building our resilience to developing dementia.

Combatting Loneliness

Loneliness is a major problem across our society, but in older people it is often compounded by bereavement and other losses such as loss of individual independence arising from poor health, loss of mobility and financial difficulties.

> "Laughter, or a smile, is the shortest distance between two people."
> – **Victor Borge**

As a society, we need to be bolder in promoting connection with others and give opportunities for older people to contribute to their communities through opportunities such as work, volunteering and the ability to have meaningful and satisfying social interactions.

Belonging to supportive communities and addressing the root causes of social isolation including sensory impairment, mental health challenges, housing and transport can therefore have huge benefits for our health and wellbeing. Loneliness can predict the onset of disability among older people, with a **longitudinal study of non-disabled men and women showing that those who were more satisfied with their social connections constituted a lesser risk**.

No story better illustrates the difference that meaningful connections can make to combatting loneliness than that of "John" and Ember.

Case Study: Ember and "John"

"John" (not his real name) was living with poor mental health in the rural Highlands and rarely left his home. He was living in isolation and had no contact with his local community.

Ember the labrador had been registered as a therapy animal ("therapet") trained by the **Canine Concern Scotland trust** for several years, who with her handler Pauline, made regular visits to community spaces including the **Thurso Community Cafe**. The cafe offers a range of services including mental health support, income maximisation advice, and support for skills development.

"John" attended the cafe one day after learning that Ember would be visiting on social media. During his first interaction with Ember, he told Pauline that he didn't like going out "because no one spoke to him and he felt lonely and isolated".

Through his interactions with Ember during what became regular visits, John began to attend the community cafe weekly, gaining the confidence to communicate and connect with others. He was able to access the services on offer and get support for his mental health.

John described the impact that his connection with Ember has had "If it wasn't for Ember I most likely would not still be here on earth – thank you."

The powerful role that animals can have in fostering connection is clear. They support our wellbeing, connecting us to them, each other and our communities.

Where ill health does set in

While it is right to intervene to prevent poor health in older age, as healthcare professionals, we will always have a duty to provide individual care for those who do experience health problems.

An important challenge is preventing and caring for people with frailty.

Frailty is a distinctive health state related to the ageing process, in which multiple body systems lose their physiological reserves. People who experience frailty are more likely to suffer a loss of independence because of a relatively minor health problem (such as infection) compared to those who are not frail. In addition, that loss of physiological reserve leads to altered responses to illness that can result in atypical symptoms (infection without a pyrexia or delirium as a consequence of physiological and cognitive stress). That variety of clinical presentations because of frailty not only makes looking after older people clinically and intellectually challenging, but they demand more than ever an understanding of each person's biography as well as biology. Here, establishing knowledge of the individual through continuity of care is important.

Those of us who care for older people are required to draw on knowledge pertaining to all body systems and we must take a holistic, personalised approach to their care, not focus on one episode, or one organ system.

The progression of frailty once established is rarely linear. It tends to be unpredictable. One of the challenges that we must help those that we care for (and their families) to navigate, is planning for and equipping our communities to deal with uncertainty. It is our responsibility as health and care professionals to manage risk effectively and help those we care for to navigate uncertainty, exploring what is important to them, advocating for them and supporting them to understand what lies ahead.

In doing so, we should also be mindful of how the people we care for want their care to be delivered.

Case Study: Getting it right for everyone

The **Getting it right for everyone (GIRFE)** approach is a personalised approach to care. It helps people get access to the help and support they need by placing them at the centre of all decision making that affects them. GIRFE pathfinders have demonstrated how using the "Virtual Meetings" tool within the **"Team Around The Person" toolkit** can contribute to a personalised and preventative approach to care while reducing risk.

"Maggie" is an older lady living with frailty and a chronic neurological condition from an island off the Scottish mainland. She uses a power chair and requires moving and handling equipment to support transfers between surfaces. She regularly travelled to the mainland for follow up appointments, involving a journey in excess of one and half hours each way and a total time away from home of more than 10 hours. The ferry service did not have wheelchair access to the passenger lounges, cafeteria or toilets. In addition to the risks to her health from sitting for prolonged periods of time, the stress and lack of facilities placed further strain on her mental wellbeing.

The **"Virtual Meetings" tool** was considered by Maggie and her care coordinator, who provided support with setting up technology to reduce her need to travel. This approach enabled Maggie to be involved in decisions about how her care was delivered, and have her preferences taken into account. It also reduced the risk of harm arising from unnecessary travel whilst simultaneously minimising adverse impact on the environment. The GIRFE approach recognises and respects Maggie's frailty and helps to ensure she receives careful and kind care.

The benefits to our society of having an older population far outweigh the challenges and we must do what we can to support healthy ageing. We must promote and encourage greater upstream prevention of illness and support our communities to be able to help people overcome loneliness and isolation and foster wellbeing.

The ever greater diversity of people's preferences, presentations and pathologies may make our practice more challenging in future, but by practising Realistic Medicine we can help the people we care for achieve the outcomes that matter to them, and perhaps a more satisfying vocation for ourselves.

Central to this is the delivery of **careful and kind care**.

By taking the time to understand what is important to those we care for now, we can help them plan and prepare and empower them to live well in older age.

To realise a healthier tomorrow for everyone, we must start today.

Chapter 3:

Our Planet for Our Health

The triple planetary health crisis – climate change, loss of biodiversity and air pollution – remains the greatest threat to human health this century. It is a public health emergency, **where healthcare systems around the world contribute substantially to the problem**, producing around 5% of carbon emissions globally. For several years, I have highlighted the interconnected nature of the population health challenges we face, and the need for urgent action to address the unfolding planetary crisis to lessen the human health impacts that will follow. We must therefore look for the intersecting approaches that enable us to meet these interconnected challenges.

In searching for this intersection, we must recognise that not only is resource stewardship necessary to reduce the overmedicalisation of care, but we must also identify under-use of high-value care that may ultimately prevent disease or its progression. By doing so, we can also reduce inequalities and create a more sustainable healthcare system too. In Canada, **this has been done by creating lists of under-used but high-value procedures** and diagnostic tests particularly aimed at the early detection or monitoring of disease. In Scotland, particularly with our need to improve cardiovascular outcomes, **maximising the health gain from prevention using statins may be especially important**.

Scotland's natural environment is an invaluable resource which we can harness to improve the health and wellbeing of the people we care for, the communities we serve, and our planet.

Wherever we are in Scotland, we are never far from some of the most beautiful natural surroundings in the world. Even our urban cityscapes benefit from close geographical proximity to nature. However, we are yet to make full use of Scotland's remarkable natural environment to support the health and wellbeing of the people we care for. In addition to mitigating the risks of the harms posed by the planetary crisis, there is much to gain in terms of benefits to our health from protecting our natural resources.

> "The physician treats, but nature heals." – **Hippocrates**

The concept of using nature for the benefit of health is not a new idea.

Victorian townplanners understood the value of harnessing nature to extraordinary effect for health and wellbeing. After a cholera outbreak in Glasgow claimed the lives of over 4,000 people in 1848-1849, engineers **diverted fresh water across 40 miles from Loch Katrine**. Cholera deaths dramatically reduced, and the scheme still provides most of the city's drinking water today.

Glasgow Green, the oldest of the city's parks, has been repeatedly protected from industrial development so that people from all walks of life could benefit from a **leisure space and point of connection for their communities**.

Given that the number of people living in **Scottish cities is predicted to continue growing**, we must think just as radically as our Victorian predecessors in striving to unlock the benefits of nature for our health and wellbeing. This is especially important given the health challenges urbanisation poses to health in terms of **higher exposure to pollution, lack of physical exercise, and resulting increase in non-communicable diseases**. Locking in community space to promote connection, outdoor activity and creativity, must become part and parcel of our approach to urban planning.

As well as being beneficial for the health and wellbeing of the people and communities we serve, the health of our planet could also benefit from increasing our engagement with nature. **The Scottish Climate Survey** tells us that while over three quarters of respondents (77%) said they knew little or nothing about Scotland's biodiversity crisis, six-in-ten (62%) had spent time in local green or blue spaces at least once a week in the past month. A large majority agreed that spending time in local green or blue spaces had benefits for their mental and physical health (both 86%), while over half (54%) felt it made them feel more connected to their community.

The evidence also shows that the physical proximity to nature in our everyday environment influences the practice of environmentally responsible behaviours, with a study of 24,204 people demonstrating **neighbourhood exposure to nature** to be associated with engagement in activities such as recycling. Early exposure to nature appears to have a positive impact on the development of environmental attitudes and behaviours as an adult. **A study of 2,004 urban-dwelling adults found positive associations between exposure to nature prior to the age of 11 and self-reported environmental attitudes and behaviours in adult life**. Associations were strongest for activities in "wild nature" such as hiking and camping, though were still significant for "domesticated" exposure such as caring for plants, harvesting vegetables and planting trees.

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect." **– Aldo Leopold**

There is growing evidence that living close to and **spending time in and around green or blue spaces (e.g. parks, gardens, ponds) is associated with fewer mental health problems**. Exposure to green or blue space is associated with **the greatest reduced risk of common mental health problems,** particularly for those who live in deprived communities.

Almost two thirds (62%) of **Scottish Climate Survey** respondents reported spending time in green or blue spaces at least once a week in the past month. One-in-five (20%) reported they spent time in a local green or blue space every day. Just under a third of respondents (31%) did so less than once a week, including 12% who said they did not spend any time at all in green or blue spaces.

Exposure to nature in our towns and cities could be an important strategy for mitigating both environmental harm and preventing ill health. As active members of the communities we serve, we can influence health behaviours for the benefit of the people we care for and for our planet.

Benefits of nature for our health

What then are the benefits of nature for our health?

Evidence shows that exposure to nature-rich green spaces (prominently featuring vegetation such as grass and trees) and blue spaces (prominently featuring water including lochs, rivers and seas) can make a **significant positive contribution** to physical and mental health, and that these begin at the very start of the life course.

Children and young people **want spaces that are close to home, interesting and varied and include nature.** They want to feel that they are safe and welcome in those spaces and that the space is valued and maintained.

A large study of children aged between 4 and 7 years found that those with higher lifetime levels of exposure to green space within 250 metres of their residential post code showed greater degrees of **development in terms of physical health, social competence, and general knowledge**. Green spaces can impact positively on childhood development in a wide range of ways including better balance and coordination, and fewer behavioural problems, through the facilitation of play and exercise. These benefits appear to be longlasting, with **one study of 3,585 adults aged between 18 and 75 from across four European cities** suggesting that those with less exposure to outdoor environments during childhood had poorer mental health in later life.

It is not just children themselves who benefit from nature– those in contact with them benefit too, with children with better exposure to green spaces benefiting from stronger neighbourhoods, **better social cohesion** and going on to develop **a greater concern for nature as adults**. This should give us pause for thought regarding the potential role of outdoor spaces in schools and nurseries and other opportunities for **children to learn through nature**.

While the evidence of better health and wellbeing is compelling during childhood, there are also benefits for adults too. **A 2016 review of 52 studies from Japan** found that exposure to green spaces was associated with significant decreases in cortisol levels – a physiological marker of stress. Mild to moderate exercise in green space **was associated with a larger drop in cortisol levels** when the activity took place in a green space environment compared to an urban one. Furthermore, exposure to green space has been associated with **improved cardiovascular health** and evidence of **better immune system activity**.

Blue spaces also positively impact on our health. A **longitudinal study of 137,032 people from Scotland** showed that those who lived in closest proximity to the regeneration of the Glasgow branch of the Forth & Clyde Canal from the most

deprived tertile of the population over the course of 18 years had a lower **risk of cardiovascular disease, diabetes, hypertension, stroke and obesity.** The creation of traffic-free towpaths promoting walking and cycling, the enhancement of adjacent green spaces and the redevelopment of surrounding sporting and leisure infrastructure, may well have created benefits experienced by the whole community.

> "Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul alike." – **John Muir**

Integration of nature into our urban spaces for the health and wellbeing of our communities should not therefore be considered a luxury. It is an essential component of our health and wellbeing for both human and planetary health. We must recognise its value in treating and preventing ill health and ask ourselves, what more we can do to support the people we care for to access nature and experience its health benefits.

Promoting health and preventing illness

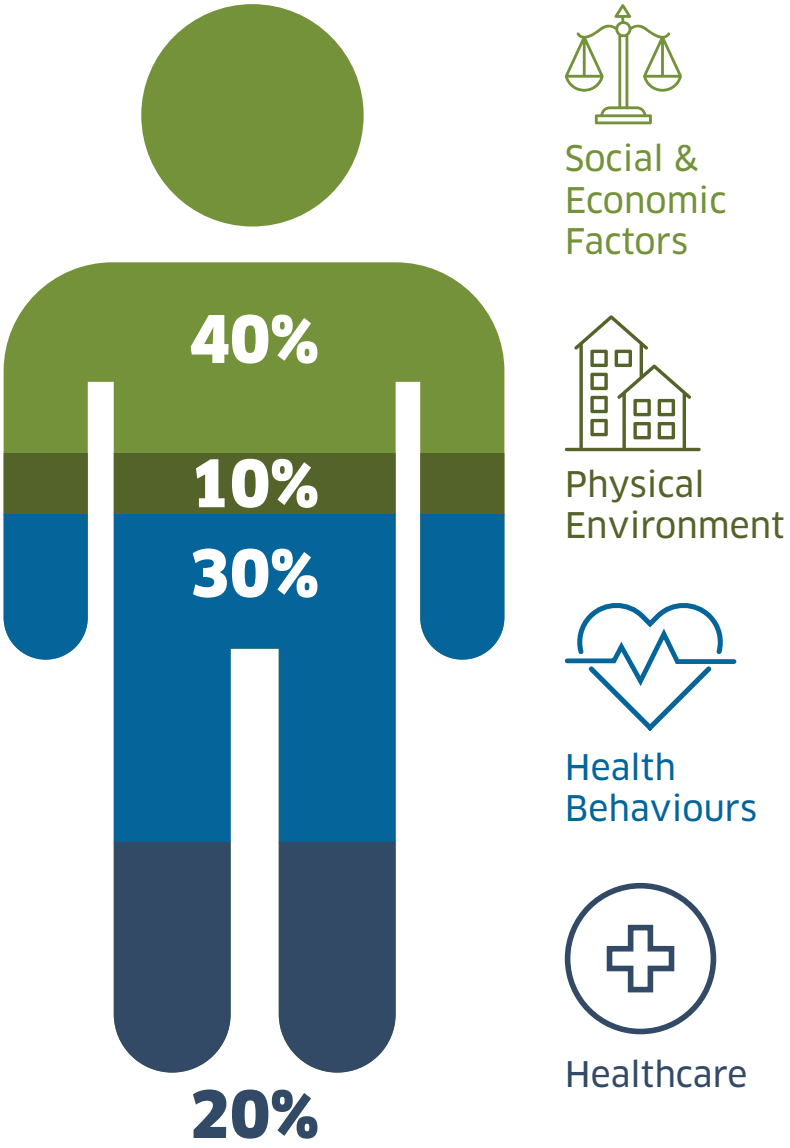
The **Scottish Burden of Disease study** predicts that the burden of disease on our population will grow by 21% by 2043.

While we live in an era in which treatment is possible for many of these pathologies, it would clearly be better to prevent them from occurring in the first place. Much of the burden of disease, and its impact on the people we care for, our communities and our health and care system can be prevented if we act now.

> "Prevention is better than cure." – **Desiderius Erasmus**

It is well recognised that what we traditionally consider as healthcare is **not the only factor which contributes** to our health and wellbeing, with some **citing its contribution to overall health outcomes as approximately 20%**.

This means that as much as 80% is made up by other factors. These include social and economic factors such as education and employment opportunities (40%), our health behaviours such as diet and exercise (30%) as well as our physical environment (10%).



It is therefore exciting to see Scotland embark on the first steps towards a multi-factored preventative approach to health with the development of the Population Health Framework, due to be published in June. Through putting prevention at the core of what we do as both a healthcare community and a wider society, we could make real improvements whilst simultaneously reducing inequalities.

We must be bold, urgent and think more widely about how we positively influence the social determinants of health.

The planet's effect on our health

Ten percent of our health is determined by our physical environment, yet can we honestly say we are truly harnessing its ability to improve and sustain health and wellbeing?

Last year, I talked about air pollution, and the threat it poses to our health in Scotland. It is a striking example of how our physical environment can contribute to our health and wellbeing. Air pollution is implicated in 1,800 to 2,700 deaths each year, and we know that admission rates to hospitals amongst children rise when levels of air pollution are high. This year, I would like to consider how harnessing nature can help address social determinants of health and help us mitigate the effects of air pollution.

While much of the focus on improving air quality is rightly on reducing emissions, there is **evidence of a beneficial effect of vegetation itself on improving air quality**. Increased exposure to residential greenspace might improve childhood development by reducing the adverse developmental effects of traffic-related exposures, especially NO_2 air pollution and noise pollution.

Given the known risks of air pollution to health, integrating nature into our urban environments by increasing vegetation could mitigate the health risks associated with air pollution in areas where people are most vulnerable.

Our role as a healthcare community

Given that the burden of disease is forecast to grow, it will simply not be enough to focus our efforts on the 20% of health outcomes influenced by traditional healthcare. As healthcare professionals, we must think far more broadly to empower the people we care for to positively influence the remaining 80%.

Social prescribing enables the people we care for to access a range of non-clinical services in their local communities. It can be used alongside traditional healthcare interventions such as medication for the betterment of health in a holistic way. Social prescribing offers us ways of enabling those we care for to benefit from nature.

The **Bromley by Bow Centre** in London is a GP practice which has led the way in the use of social prescribing in their community. Sir Sam Everington, a GP at Bromley by Bow explains:

> "There are many things that affect our health and wellbeing that can't be fixed by traditional medicine. Social prescribing is a crucial way of addressing this. Understanding what matters to people, and connecting them to people, their community and nature, can have a profound impact on improving their health and wellbeing."
> – **Sir Sam Everington, Bromley by Bow Centre**

If we are to be successful in creating a Scotland which truly unlocks the value of prevention, the people we care for must also be able to access services for themselves to prevent the over-medicalisation of care.

A striking example of this in action is the story of Michelle, who attended the Growchapel Community Allotment in Glasgow at a time when she needed support.

Case Study: Growchapel Community Allotment, Glasgow

When Michelle, 52, lost her dad, she fell into a depression and was signed off work.

Determined to do something positive for her mental health, she looked on social media and found the Walking for Health weekly walk in Drumchapel, a joint venture between **Chest Heart & Stroke Scotland** (CHSS) and the **Health & Social Care Alliance Scotland**.

After becoming a regular attender, she began volunteering for CHSS at its fledgling Growchapel community allotment and started to give her free time at a dementia support group in nearby Yoker. Now, almost four years on, Michelle is working full time with people living with dementia and credits the regular walk and gardening for restoring her confidence and changing her mood.

> "I was in a downhill spiral after losing my dad. I knew I needed to do something, and I knew it had to be physical. Going on the weekly walk and volunteering at Growchapel changed everything."
>
> "There's something about gardening – even if you know nothing about it – that gives you such great satisfaction. When we started, the allotment was just mud, but that just made the challenge more fun. So long as you don't mind getting dirty!"
>
> "The health walk takes me out of myself for an hour every week. It's been such a positive experience. No matter the weather, it's worth it for how good it makes you feel. Now I'm working full-time again and so happy with the job I'm doing."

Michelle's story not only illustrates the power of enabling people to access the support they need in their local communities, but also the lasting benefits that connecting with nature can have on our health and wellbeing.

We know that physical activity can have huge benefits for our health and wellbeing. The evidence shows that there is no minimum level required to achieve better health and that the greatest potential benefits to increasing physical activity are for those who are the least active.

> "If physical activity were a drug, we would refer to it as a miracle cure, due to the great many illnesses it can prevent and help treat."
> – **UK Chief Medical Officers, 2018**

The evidence also shows that nature can enhance the benefits of physical activity, with **studies showing that exercise in green environments has a more beneficial effect** on physiological stress than exercise undertaken in urban environments. In addition to supporting our physical and mental health, physical activity can bring people together, creating and enhancing connections between people, but also with nature.

Case Study: Boots and Beards

Boots and Beards enable people to use the natural world to improve their health and wellbeing through the provision of group exercise activities, including guided hill walks.

"Exploring nature has been a passion since childhood – it has always made me happy and played a huge role in my mental wellbeing. As a Muslim woman, it isn't always easy to feel connected with the outside world. In our culture, women are traditionally expected to focus on home and family, making it harder to step outside of those roles. Hill walking has allowed me to break those barriers, giving me the space to explore, breathe, and enjoy the beauty of nature in a way that feels truly liberating. It's not just exercise – it's an act of self-care and independence."

Case Study: Boots and Beards – continued

"Walking and hiking have also had a huge impact on managing my ADHD. Being outside helps me focus, calms my thoughts, and gives me an outlet for my energy in a way that nothing else does. It allows me to process my thoughts more clearly and brings a sense of balance to my day. I've noticed that after a good walk, I feel more present, less overwhelmed, and better able to manage daily tasks." – **Boots and Beards participant**

Nature in Healthcare Settings

Every healthcare professional in Scotland has a role to play in empowering the people we care for to connect with nature for the good of their health.

The NHS Scotland estate covers a total of 1,582 hectares, which is roughly the size of the city of Stirling. While much of the focus of using the estate is on the provision of healthcare – the grey infrastructure, such as buildings and facilities – we must also consider the potential of NHS green space holds for keeping us well. Recent **mapping work undertaken by Public Health Scotland shows that 52% of that land (852 hectares) is green space**.

Much of our NHS green space is underused, currently supplying a fraction of its potential to sustain the health and wellbeing of our people, our communities and our planet. We want to realise the full potential of the greenspace resource across the NHS Scotland estate. **Our aim is that NHS greenspace is embedded as a core component of Scotland's health and social care services and managed to improve provision, access, quality and use**.

Case Study: Ninewells Community Garden

Since 2012, a team of volunteers, trustees and staff at the **Ninewells Community Garden** have created an environment which promotes physical activity and healthy living through gardening where community engagement, health and wellbeing and environmental sustainability is at its core.

The garden includes wheelchair accessible paths, herbaceous borders, vegetable beds, a sensory garden, small orchard with wildflowers, picnic area, wildlife habitat, garden room, polytunnel and children's play area.

> "Getting outdoors, in the fresh air, meeting other people. It's helping me to lose weight for the first time in years." – **Volunteer, Ninewells Community Garden**

Volunteers share seeds, plant cuttings, equipment and knowledge with other gardens, connecting with 29 other groups across Dundee to create a **network of community growing spaces**. As one volunteer put it, *"It isn't really about gardening, it's about connecting with nature and each other"*.

The impact of this network of gardens is undoubtedly making an important difference to the health and wellbeing of those involved now, but I am struck by the potential impact this is having on the future health of everyone involved across this growing network of communities.

Our future direction

When it comes to our future health one thing is clear: providing care the way we always have is not an option.

Just as we as individuals do not exist in isolation, human and planetary health are intertwined. We are part of an interconnected ecosystem and whether it be new approaches to sustainable agriculture, materials or healthcare, this innovation is well established across Scotland.

There is more we can do in areas such as sustainable diets to prevent ill health, reduce pressure on our health services and reduce our impact on the natural world. **Shifting towards sustainable, healthy diets and cutting food waste are key opportunities for reducing emissions and pressure on nature**, in Scotland and overseas. This can go hand in hand with **improving our health and easing pressure on our NHS**.

Restoring the connection between ourselves and the planet need not be seen as a challenge, but an opportunity to develop fresh approaches for the health, employment and economic prosperity for the communities in which we live. Addressing the social determinants of health, refocusing our efforts on prevention and empowering people to prevent ill health is our duty and will benefit everyone in society. By nurturing nature we can improve the health of the people we care for, our communities and our planet.

Restoring and strengthening that connection between ourselves and the planet need not be seen as a problem.

When it comes to the future health of both, it is part of the solution.

Chapter 4:

Our Place in Our Communities: Past, Present & Future

Thirty-five years before the formation of the National Health Service in 1948, Scotland led the way in creating a state funded healthcare system to serve the specific needs of its remote and rural communities.

Ballachulish GP, Dr Lachlan Grant's evidence to the 1912 **Dewar report** highlighted the plight of those needing medical care in the crofting communities who, with no regular income, were not covered by the National Insurance schemes of that time. The resultant launch of the **Highlands and Islands Medical Service** provided medical care to over 300,000 people, over an area covering more than half of Scotland's land mass, for the first time. This network of expert medical generalists embedded in their communities, practising according to local need, formed the foundations of what we would now recognise as the modern General Practice and **served as a model for others around the world,** including the NHS.

Over a century on, the challenges we face in healthcare have changed, but the importance of our relationship with the communities we serve has not.

Given the increasing health needs of our population, driven by the growth in non–communicable disease and exacerbated by the pandemic, coupled with increasing societal expectations for convenience and immediacy, it is perhaps understandable that the speed of access to healthcare has become our primary focus. However, I am concerned that continuity of care, and the benefits that relational care brings both for those being cared for and for our wider system, are at risk of being compromised as a result.

What do we mean by continuity of care? This can be considered in terms of **three intertwined domains**:

- **Management continuity –** where there is an agreed and coordinated plan for who is responsible for each element of a person's care;
- **Informational continuity –** where there is accurate exchange and capture of information which is readily accessible as a person interacts with us throughout their care;
- **Relational continuity –** where the same healthcare professional provides treatment and care for a person over time, allowing development of trust as well as an understanding of their biography as well as their biology.

Management continuity can be achieved through the effective collaboration of multi-disciplinary teams. Informational continuity can be achieved through good communication, supported by technology, which is also important in supporting **careful and kind care**. However, I want to focus on the importance of relational continuity. Relational continuity relies on the development of human relationships and trust, creating a connection, and as such requires time and space for them to develop.

> "Care happens in the space between people, in an unhurried encounter. Only humans in interaction can care." – **Victor Montori**

Benefits for communities

As a GP, I had the privilege of relational continuity with the people I cared for and highly valued these relationships. The human connection fostered through relational continuity is not only professionally satisfying but is simply vital, if we are to truly understand the sometimes complex needs of people we care for. It is the polar opposite of **industrialised, transactional care** and not just a mechanism for healthcare delivery.

There is a growing body of evidence that relational continuity of care positively influences clinical outcomes for people across the life course. GPs offering relational continuity identify more people at risk of cardiovascular events who will **benefit from statins**. People living with diabetes have **better glycaemic control** when they have relational continuity with their health and care team. In our older population, **people living with dementia who have good relational continuity with their GP** have been shown to have **10% fewer hospital admissions, 35% fewer episodes of delirium, and 57% less incontinence**. I've shared this quote with you before, but it sums up relational continuity perfectly:

> "It is more important to know what sort of person has a disease than to know what sort of disease a person has." **– Hippocrates**

For the people we care for, the benefits of relational continuity are not just limited to better clinical decisions. Those who experience more relational continuity with their GP are **more likely to report higher levels of trust in their doctor**, which has an important bearing on the quality and effectiveness of the care given. People are more likely to follow advice from a professional they know, **disclose their symptoms more readily** and take **medication as prescribed**. There is also evidence of significantly better uptake of personalised preventative medicine, such as **screening for breast and cervical cancer** and **vaccinations.**

More relational continuity enables the development of this trust, which is essential for effective **shared decision making**, with real implications for the practice of **Realistic Medicine**, contributing to the delivery of **careful and kind care**.

Better value care and a more sustainable system

What are the benefits of continuity to the wider healthcare system? Given that a focus on speed of access to care has perhaps unintentionally eroded continuity of care, it is right to question whether redesigning services to promote relational continuity would result in slowing down access and perhaps even increase demand for care.

The evidence suggests however that the opposite is true. Chang and colleagues' 2024 **study examining 1.4 million episodes of care from Taiwan** showed continuity to be associated with a reduction in the overuse of care that was of little or no value to those receiving it. **Menec and colleagues' study from Canada of 1,863 older adults** receiving relational continuity from their GP were shown to be significantly less likely to be admitted to hospital for conditions which could be managed in the community, a finding which was replicated in the **UK context in a study of 230,472 patients**. The benefits of continuity to the wider system are obvious in terms of the potential for reduced **financial costs of unnecessary hospital admissions**, but there are also benefits in terms of reduced **referrals for further care which is of little value or even harmful**. Relational continuity provides us with the foundation to practise Realistic Medicine and support a more sustainable health and care system.

And yet, despite clear benefits for our system and the people we care for, there is less relational continuity, not only within General Practice, but across Scotland. Whilst the number and longevity of the relationships within General Practice make it the most important place to foster relational continuity, there are also examples of its value in secondary care.

Continuity may be more challenging to provide in secondary care when multiple professionals and specialties provide care for individuals with complex multisystem problems, however **there is evidence that the connections that relational continuity creates between patients with chronic kidney disease and the wider specialty team** is valued by those being cared for– they have a better care experience and feel like they are treated as a person, rather than a number. In paediatrics, parents of children with chronic health conditions describe feeling that they take on a **"necessary though uncomfortable coordinating role" when services are compartmentalised**, and the child being cared for isn't as well known to those providing care.

Simply put, continuity, and relational continuity in particular, should not be regarded as "nice to do". Nor can we say that we simply do not have the time. The care we provide must be centred on what matters to the people we care for, not what matters to our system. The evidence is clear, relational continuity is vital if we are to understand and deliver the outcomes that matter to the people we care for, use our resources more wisely and create a more sustainable system.

Given the finite resources of our health and social care system, we must consider who will benefit most from redesigning services to foster more relational continuity.

In my annual report last year, I discussed the concept of *"missingness"– a person's repeated tendency not to take up offers of care such that it has negative impacts on their life chances.* Missingness is a significant risk factor for negative outcomes but has clear causes that can and must be addressed.

We have a moral obligation to start here.

Proportionate universalism means providing universal services, but with more provision for populations with higher needs. The **inverse care law** states that the disadvantaged populations need more health care than advantaged populations, though receive less. How can we put our understanding of these concepts into practice to create services that truly serve our communities?

Case Study: Newfield Medical Group

Newfield Medical Group is a GP practice in Dundee serving an area of social deprivation where patients have struggled to access traditional healthcare. Newfield has sought to address this by creating a service which removes access barriers for people and aims to meet the needs of the community. GPs answer phones, dealing directly with people from first contact, and people can speak to a doctor anytime during the day.

The group operates as a cooperative, with the profits supporting a charity, the Newfield Community Group SCIO. They have opened a cafe and social prescribing hub staffed by volunteers co-located with the practice and employ a coordinator to oversee these. In addition to a clothes bank and food larder, Newfield have worked collaboratively with:

- **Barnardo's** to make a Job Shop accessible to the local community;
- **Dundee City Council** to make benefits and income maximization advice easily accessible; and,
- **Feeling Strong** (a young person's mental health charity) to offer services including an Art Group, youth drop-in and one-to-one coaching.

Newfield staff understand and respond to the needs of the community they serve.

After IT literacy was identified as an issue, a drop-in group was established. When a patient with a stoma noted there was limited support in Dundee, a support group was formed. One of the hubs volunteers, a veteran, established a veteran's group providing peer support, reminiscence and introductions to new people. These volunteers also contribute to teaching medical students in the practice's innovative undergraduate teaching clinic.

Newfield represents a bold and different way of serving the community which is improving access to care and achieving the outcomes that matter to the people they care for, as well as enhancing the area they serve.

What might continuity of care look like for individuals? I strongly advocate the Getting it right for everyone (GIRFE) approach.

Case Study: Getting it right for everyone (GIRFE) approach for "Sean"

Getting it right for everyone (GIRFE) provides a personalised approach to care, and improves access to the right help and support, by placing the person at the centre of all decision making that affects them. It's a collaborative, multidisciplinary approach, founded on continuity of care.

"Sean" (not his real name) is a young man with paraplegia because of a head injury and fractured spine. He has a history of alcohol dependency, self-harm and seizures. Between May 2023 and May 2024, he was admitted to hospital fifteen times. In May 2024, he was discharged following treatment for severe anaemia, osteomyelitis and ungradable pressure ulcers.

On discharge he had no accommodation, no clothes and no access to funds. He was socially isolated, with no involvement in wider social and community networks.

GIRFE pathfinders applied the **"Team Around The Person" toolkit** and involved Sean in conversations about his care, allowing Sean and his health and care team to develop trust, share information, understand his preferences – what matters to him – and support shared decision making between Sean and his multidisciplinary team.

Sean trusted that his choices would be respected as he was involved in the decision making process. Sean now has regular support from the community nursing team and social work.

As a result of the GIRFE pathfinder, Sean has had only one 24-hour hospital stay, for an unrelated health condition. Continuity of care, guided by the "Team Around The Person" toolkit, has resulted in Sean now engaging with his plan of support and substance misuse programme. In applying the GIRFE approach to his care, Sean is also no longer confined to his home and can access local amenities independently.

When asked about his care since the GIRFE approach has been adopted, Sean said, "I have got my life back and never felt so safe."

"We have to be very careful not to blame the patients. A lot of the conversation [around patient engagement] has been, how do we get them to do stuff? To me, that's not engagement." – **Victor Montori**

How can services deliver Value Based Health & Care today

Whilst parallels exist between the success of the Highlands and Islands Medical Service, and our future success in meeting the challenges we face, there are also some striking differences.

A myriad of scientific and technological advances have transformed healthcare. Whilst progress is to be celebrated, we should recognise that our role as health and care professionals in providing care to the communities we serve is more complex today than it has ever been. If we are to succeed, we must recognise the importance of the human connections between us and the communities we serve.

Providing **Value Based Health and Care** today requires a continually evolving depth and breadth of knowledge and training. The importance of promoting a **culture of stewardship over our finite resources** means the skills of experts in the navigation of uncertainty are more important than ever – not only for the sustainability of our system but in order to achieve "personal value" and in **preventing harm arising from wasteful and unhelpful care**.

This is part of the challenge of medical generalism which is both a joy and an awesome responsibility. Truly **personalised care** requires more than just deploying our growing armoury of investigations and treatments. Doing the right thing requires recognition that each person we care for is unique with their own biography and biology. As Professor Andrew Elder writes: **"What could be done may be relatively straightforward, but what should be done requires studied listening, enquiry, exploration, and judgement."**

Being able to hold and **manage risk**, use time as a diagnostic tool, and help the people we care for navigate uncertainty are essential elements of the way we must practise today.

They will become even more important in the future.

Our future place in our communities

Having considered the benefits of rebalancing services to focus on longer term human relationships, we should also consider how redesigning services to foster more meaningful relationships will benefit wider society too.

In Scotland, **clinicians have long enjoyed a position of public trust**, which is essential in allowing us to serve our communities well. However, if we are to retain that trust, we must also be ready for the changes and challenges that lie ahead. As health and care professionals we cannot, and must not, fall into the trap of inadvertently becoming distant from the people we serve. We must value the relationships not only with those that we care for in our consulting rooms, theatres and wards, but also our relationship with the public more widely. The word "doctor" is derived from the Latin "docere" which means "teacher". Regardless of our profession, we all have a role in teaching and educating the public about their health. This role has never been more important than it is now.

The ubiquity of the smartphone means that the same information, guidelines and resources that were once the preserve of the professional are now at everyone's fingertips. Understanding how to best use this information in the context of what matters to the people we care for, understanding the limitations of what evidence does and does not tell us, and keeping up to date as things change, will remain one of our key responsibilities.

However, just as high-quality information has become more widely available, so too has information which is of low quality or even harmful. **Misinformation and disinformation** (MDI) can cause harm, and compromise decision making processes as well as health, environment or security.

- **Misinformation:** is the spread of false information without the intent to mislead. Those who share the misinformation may believe it is true. They have no malicious intent towards the recipients they share it with.
- **Disinformation:** is spread with full knowledge of it being false (information has been manipulated), with the intention to deceive and cause harm.

The term "infodemic" has been used to describe situations during public health crises where an overabundance of information – both factual and inaccurate – creates confusion to the detriment of public health. The spread of **MDI** during the Covid-19 pandemic – predominantly via social media – brought this emerging threat to our health to the fore.

It is no coincidence that we are seeing a rise in the power and influence of false narratives whilst simultaneously seeing a decline in the availability of a meaningful human connection in healthcare. **The evidence tells us trust is fostered through continuity of a meaningful human connection**.

Our responsibility to the public as teachers of health literacy and advocates for critical thinking will be fundamental to meeting the challenge posed to the nation's health by misinformation and disinformation. We must build on our trusted relationships with the people and communities we serve and use our knowledge, skills and expertise to help them understand and overcome these threats to their health and wellbeing. We can do this by practising **Realistic Medicine** and delivering **careful and kind care**.

What lies ahead

There can be little doubt that Artificial Intelligence (AI) will play a significant role in the delivery of healthcare in the very near future. Whilst it has been speculated this will ultimately lead to the replacement of doctors and other healthcare professionals, I would point again to the strength of the evidence regarding the importance of the human relationship in providing careful and kind care.

We must be mindful of the distinction between knowledge and wisdom. Knowledge can be defined as the awareness of facts and information accumulated through learning. Wisdom however can be considered as the quality of being able to apply knowledge and make judgements and behave accordingly. In the context of the evermore complex world of healthcare, in which human relationships are essential, using our wisdom to make decisions in partnership with the people we care for will remain of paramount importance. Furthermore, it must be done in a way that maintains and strengthens our relationships through knowing when to listen, when to offer comfort and when to show we care. Technology will never be able to hold a hand or broach difficult conversations.

Given the ability of AI to make sophisticated predictions based on large amounts of data, it will likely play a key role in streamlining processes and directing healthcare professionals to where they are needed most. For example, in identifying people who will benefit most from preventative medicine, those most likely to deteriorate in real time, and in assisting with care in people's homes. However, given the ever-growing complexity of clinical decision making, and the need to understand biography as well as the biology, AI cannot replace the human element of providing care. AI will always need clinical (human) governance. The Potential for AI to misinform or misapplication is real and there will therefore always be a role for human healthcare professionals.

Successful applications of AI in the interpretation of imaging such as x-rays and other investigations are increasingly being described in the literature. Whilst increased diagnostic speed and accuracy are welcome progress, with obvious benefits for the people we care for, we must remember that AI using knowledge in this way cannot replace the wisdom and compassion required to provide careful and kind care.

A call to action

I have spoken of the importance of the human relationship in providing care – whether that be for our health and care system, our planet or the people and communities we serve.

The future is uncertain – but exciting. It is hard not to be struck by the plethora of technological and societal advances since the beginnings of our modern NHS in the North of Scotland in the early 1900s – and more will come. While this has accelerated progress in ways our predecessors cannot have imagined, we cannot afford to allow current and future advances in technology to obscure our role as humans who care. To underplay the value of human understanding and connection in providing care risks accepting transactional, depersonalised interactions becoming the norm.

The rise of social media, the increasing immediacy of information exchange, and the expanding capabilities of medical technology risk giving rise to a vacuum in the absence of human care and advocacy. It is only by being human and establishing connection with others that we can provide the care that matters to people, our communities and society.

And so I call to action everyone in our health and care community, regardless of your role, your discipline, or where in Scotland you work. No matter what happens in the future, being human, understanding both biology and biography, serving as advocates for our communities and champions of health literacy will remain at the core of our purpose. To overlook or underplay this will be at the expense of the people we care for, the public and ourselves.

We must not let this happen. Holistic care and healing have human connection at their heart and remain the only way to provide careful and kind care.

Chapter 5:

Health of the Nation

The health and wellbeing of the population lie at the heart of Scotland's prosperity; it must continue to be an aim to reduce preventable disease and enable everyone in Scotland to live in good health for as long as possible. Improving and sustaining health requires action across multiple areas to influence the wide range of factors that determine our health.

I eagerly anticipate that creating good health and preventing poor health will be the focus of the Population Health Framework, due to be published in June. This represents a shift in culture from illness management to prevention, and a shift towards a more whole-system approach to prevention with greater emphasis on strengthening the fundamental determinants of health across society. I am convinced that this broad approach is necessary if we are to reduce the significant burden of preventable disease experienced by our population now and the anticipated increase yet to come.

It has been informed by Sir Michael Marmot's, and the King's Fund **Population Health Pillars**.

1 Give every child the best start in life.

2. Enable all children, young people and adults to maximise their capabilities and have control over their lives.

3. Create fair employment and good work for all.

4. Ensure a healthy standard of living for all.

5. Create and develop healthy and sustainable places and communities.

6. Strengthen the role and impact of ill health prevention.

7. Tackle racism, discrimination and their outcomes.

8. Pursue environmental sustainability and health equity together.

I welcome this approach. We all have an important role in creating and maintaining good health and wellbeing for the people we care for and the communities we serve.

The Population Health Framework will be complementary to the Scottish Government's wider reform and renewal efforts, including the **Public Service Reform Strategy** and the forthcoming Health and Social Care Service Renewal Framework. It also seeks to contribute to addressing the four concurrent challenges to population health in Scotland that I described in **my previous annual report**: the ongoing threat of infectious disease, widening health inequalities, the need to create a more sustainable health and care system, and the need to address the planetary crisis.

In this chapter on the Health of the Nation, I highlight some of the main challenges facing Scotland's health and wellbeing today – challenges which have informed the issues and topics that I discuss in the preceding chapters of my report.

Poverty

People living in Scotland's most deprived communities live more than a third of their lives in poor health compared to around 15% in the least deprived areas.

Relative poverty (defined as total income less than 60% of the median) remains significant, affecting one in five people. This means that more than a million people live in relative poverty, including **one in every four children**. For children from ethnic minority backgrounds this rises to **one in every two**.

Figure 1 Poverty rate (after housing costs) for children, working- age adults, and pensioners in Scotland from 1994–97 to 2020–23

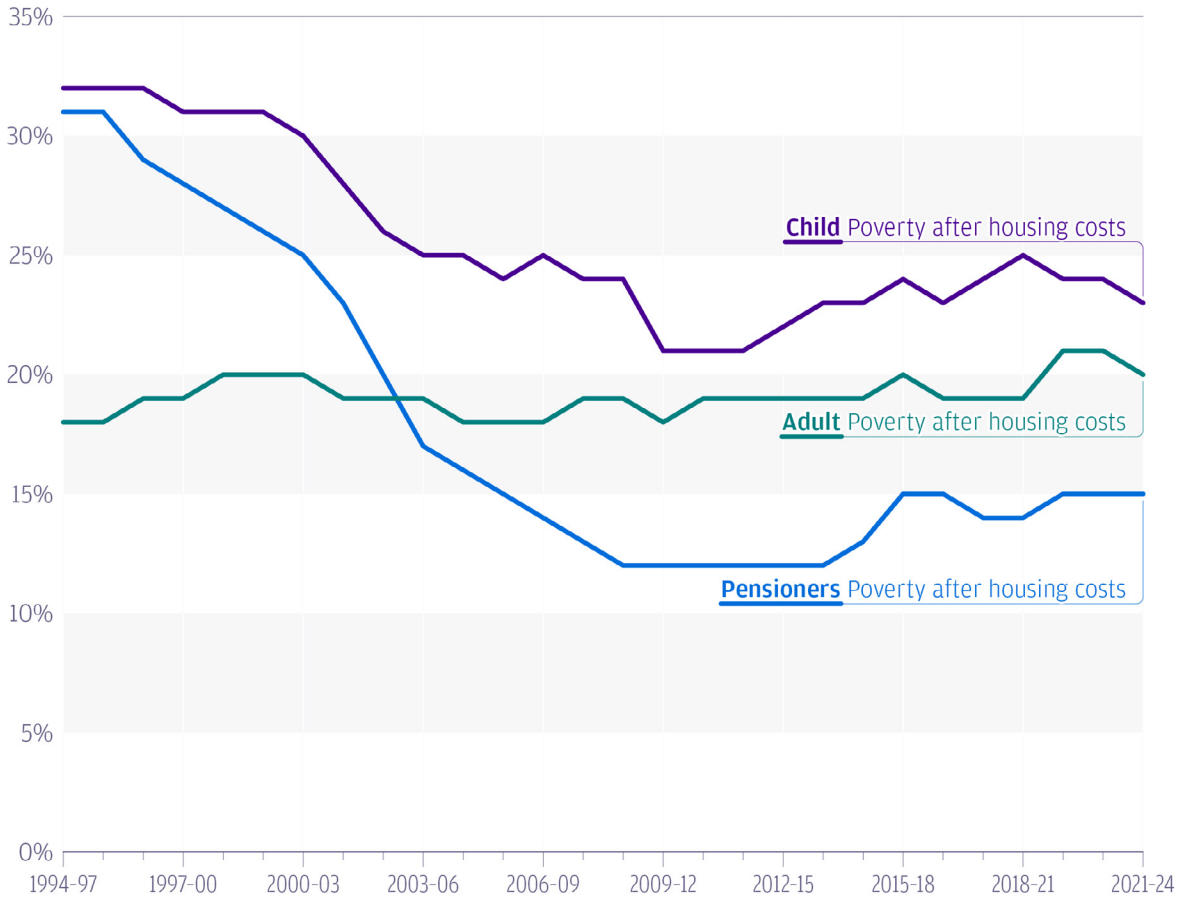


Figure 1 shows that from 1994–1997 to 2020–2023, children living in poverty fell from over 30% in 1994–1997 period but then rose from 2007–2010 period to nearly 25% by 2020–2023. Working age adults living in poverty initially remained stable but has increased more recently. Poverty amongst pensioners dropped sharply and has remained low. Child poverty remains the highest of the three categories.

Life Expectancy and Healthy Life Expectancy

Scotland continues to have the lowest life expectancy of UK countries.

Figure 2 Life expectancy for males and females in Scotland from 2000–2002 to 2021–2023

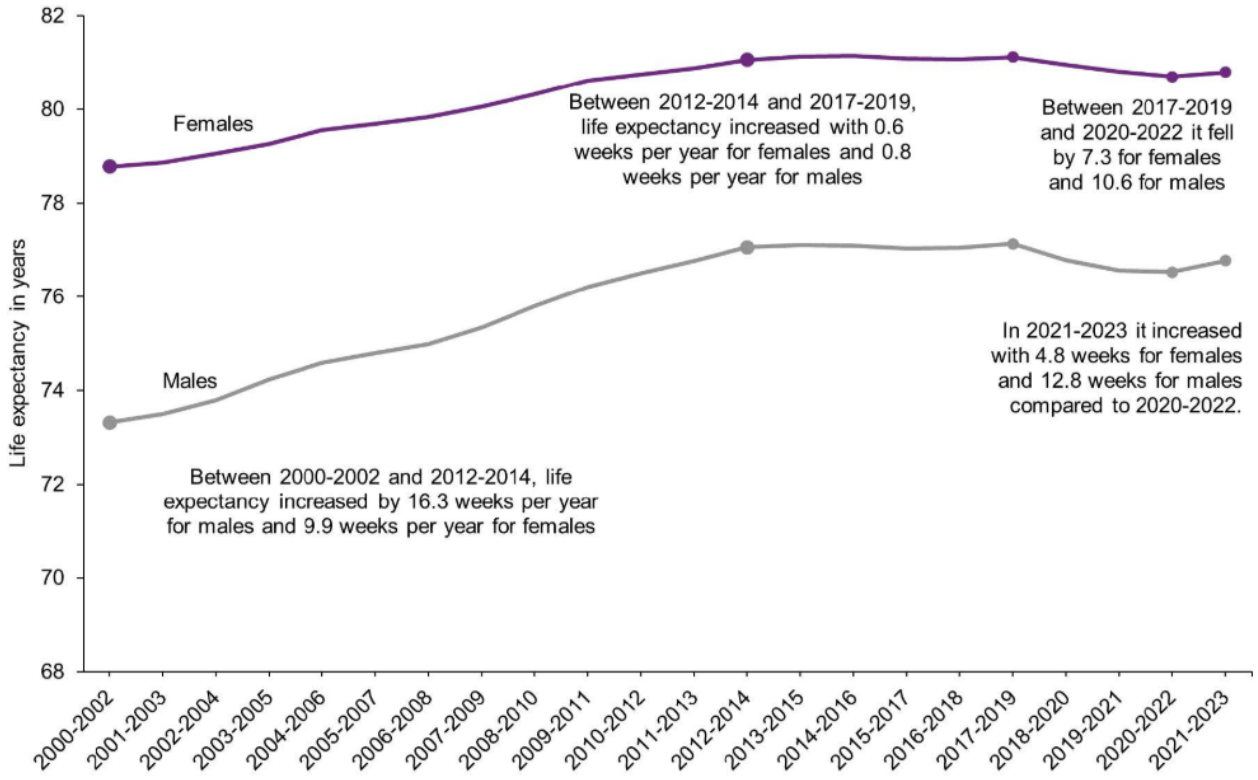
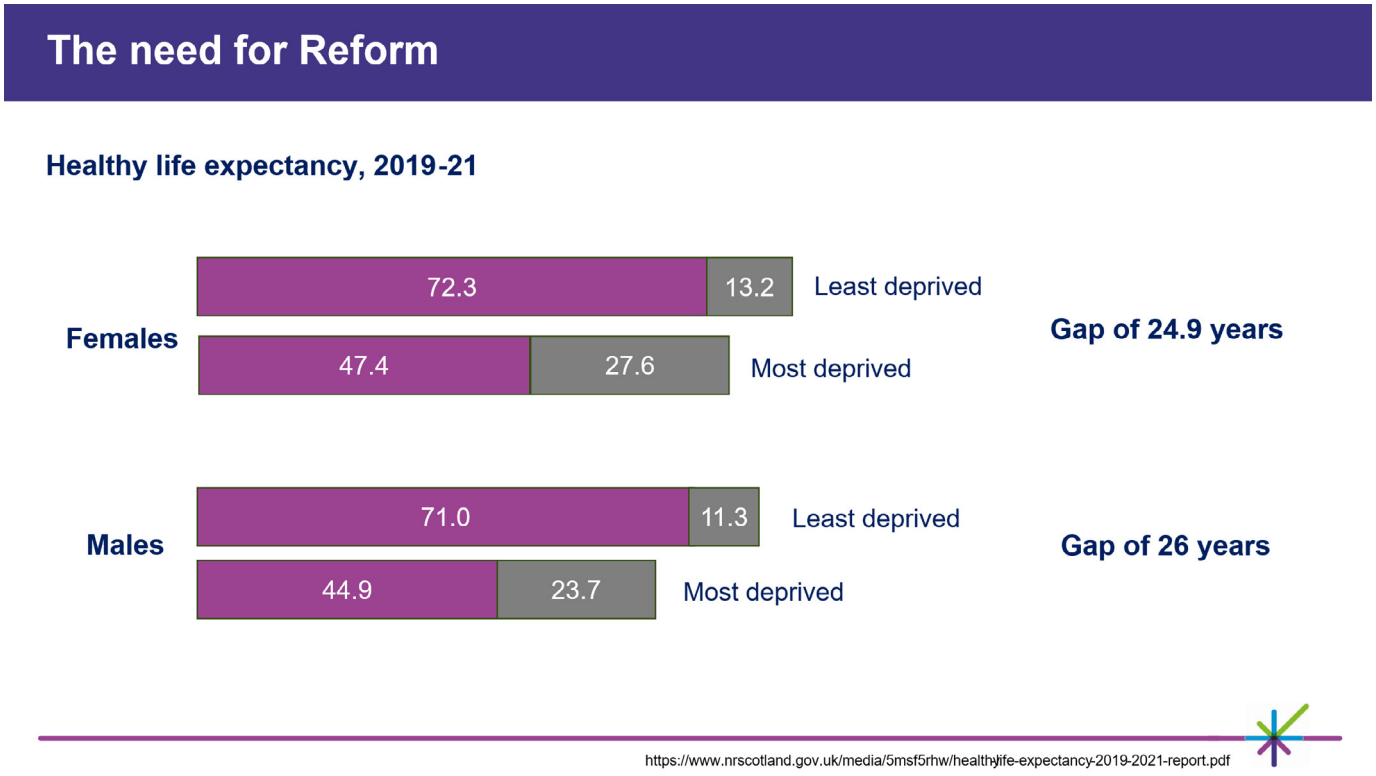


Figure 2 shows that **life expectancy in Scotland rose from 2000–2014**, but this rise slowed from 2012–2019, falling sharply during 2017–2022. While life expectancy increased between 2020-2022 and 2021-2023, it remains below pre-pandemic levels. Women consistently live longer than men.

The gaps in **Healthy Life Expectancy between those in our most deprived and least deprived communities persisted and widened over the last decade**.

Figure 3 Chart of Healthy Life Expectancy in Scotland



In 2019 to 2021, there was a **24.9-year gap in Healthy Life Expectancy in women and 26-year gap for men** (Figure 3).

Inequalities

The leading causes of health loss are also where the greatest health inequalities are found, both in absolute and relative terms. Addressing these inequalities would not only improve equity but also reduce the overall burden of these conditions.

While the premature mortality rate (considered as deaths occurring before the age of 75) declined steadily from the late 1990s to around 2014, **this progress has now stalled or even reversed- particularly in our most deprived communities**.

In 2021, the gap in premature mortality rates between the most and least deprived areas increased to its highest point since 2003 (684.2 per 100,000 and 703.5 per 100,000 respectively) and is higher than at the start of the time series (648.7 per 100,000 in 1997). Relative inequalities have widened over the long term and are now at the highest point in the time series (1.56). In 2021, premature mortality rates were 4 times higher in the most deprived areas compared to the least deprived, an increase from 3 times higher in 1997.

Contributing factors to increased premature mortality include COVID-19, especially in disadvantaged groups. **Rising inflation has also been postulated to raise premature mortality by 16%**- as has austerity, hitting deprived areas hardest.

Non-communicable diseases with diet and behaviour-related risk factors disproportionately affect the most deprived in our society.

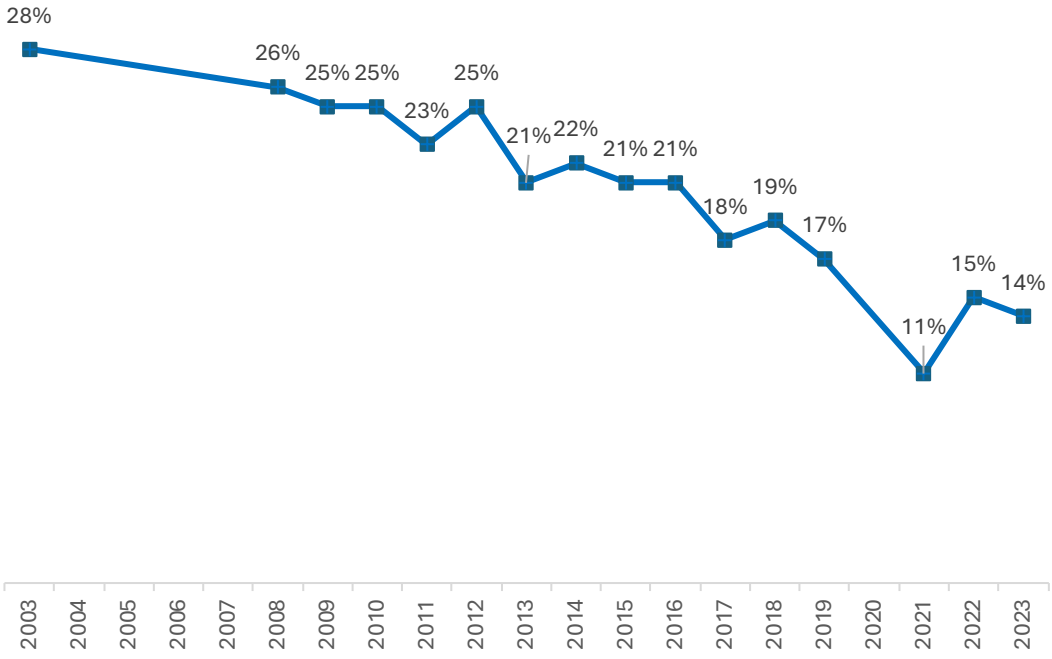
Smoking, Alcohol and Substance Misuse

Smoking remains a significant risk factor for cardiovascular disease, cancer and vascular dementia. Next year (2026) will mark twenty years since the ban on smoking in enclosed public places– which was world leading and has **shown to be highly effective in reducing smoking** and smoking-related morbidity (Figure 4 Tobacco Use, Smoking in Scotland). However, stark inequalities in smoking remain. **Thirty five percent of adults living in the most deprived communities report smoking compared to just 10% in the least deprived**.

According to the Scottish Health Survey in 2023, around one in seven (14%) adults were current smokers, similar to the level in 2022 (15%). Smoking was least prevalent among those aged 75 and over (6%).

The four UK Chief Medical Officers (England, Scotland, Wales, and Northern Ireland) publicly endorsed the Tobacco and Vapes Bill which we viewed as a vital step towards creating a smoke-free nation and addressing the health risks associated with smoking, including the potential gateway effect of vaping on cigarette use. The UK Government and devolved administrations are now bringing forward measures to create the first smokefree generation and tackle the rise in youth vaping.

Figure 4 Tobacco Use, Smoking in Scotland



Scotland continues to **experience some of the highest rates of alcohol-specific deaths** and hospital admissions in the UK, with **1,277 deaths in 2023: a 15-year high**-and persistent, stark inequalities, as **people in the most deprived areas are over four times more likely to die and six times more likely to be hospitalised due to alcohol than those in the least deprived areas**. **While Minimum Unit Price (MUP) is estimated to have reduced alcohol specific deaths and contributed to tackling health inequalities**, it forms part of a wider approach to reducing the harmful effect of alcohol on society.

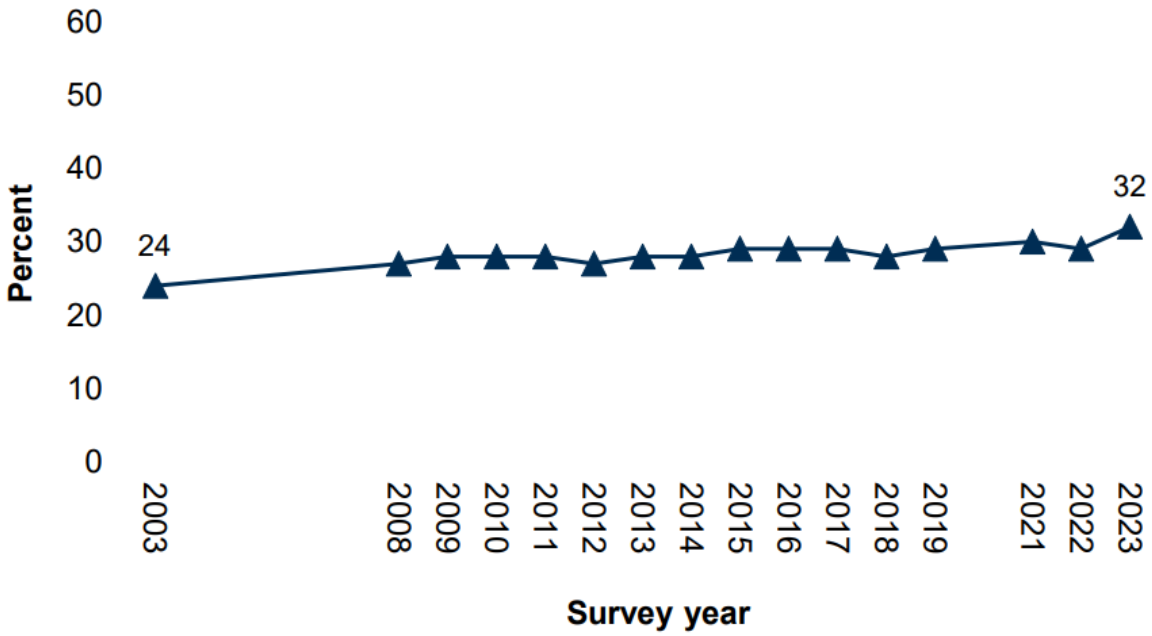
By 2020, drug deaths were Scotland's fourth leading cause of premature mortality, exceeding UK rates. The latest figure for drug-related deaths in Scotland in 2024 is **1,065 suspected drug deaths, which represents an 11% decrease compared to 2023 (1,197 suspected deaths)**. Yet Scotland continues to have the highest drug-related death rate in Europe, **three times higher than the next highest country**. The latest confirmed figure for drug deaths in Scotland in 2023 is 1,172, an increase of 12% on 2022. Interim published data **for 2024 reports 1,065 "suspected drug deaths", which represents an 11% decrease compared to 2023 (1,197 suspected deaths)**.

Obesity & Overweight

Obesity remains a major risk factor for type 2 diabetes, cardiovascular disease, cancers and other causes of ill-health, and the problem is growing.

It is critical that we intervene upstream by tackling the underlying issues that fundamentally determine health. This includes tackling harmful food environments and physical inactivity which contribute to rising levels of obesity.

Figure 5 Adult Obesity in Scotland as reported in the Scottish Health Survey 2023



In the 2023 **Scottish Health Survey**, 32% of adults were living with obesity– the highest recorded to date. Sixty-four per cent of adults had at least an increased risk of ill health based on BMI and waist circumference. Sixty-eight per cent of children were a healthy weight, however 17% were at risk of obesity (>95th percentile for their age and sex) putting them at increased risk of health consequences in later life.

At the same time, the evidence from the 2023 Scottish Health Survey shows only 63% of adults meeting the recommended guidelines on physical activity levels, which remains within the overall range recorded between 2012 and 2022 (62-69%). As in previous years, a higher proportion of men reported having met the guidelines (68%) compared with women (59%).

The potential benefits of physical activity to both individuals and wider society are discussed in Chapter 2 when I consider the roots of ill health in later life through interventions in the working age population. In Chapter 3, I discuss the ways in which nature can be harnessed to encourage physical activity for the benefit of both physical and mental health.

Ill Health

Cardiovascular Disease (CVD), Type 2 Diabetes, Asthma and Chronic Obstructive Pulmonary Disease (COPD) are significant contributors to the burden of disease in Scotland.

Figure 6 Prevalence and Mortality of Major Long-Term Conditions at GP Practices across Scotland (2023). Not all Practices are included.

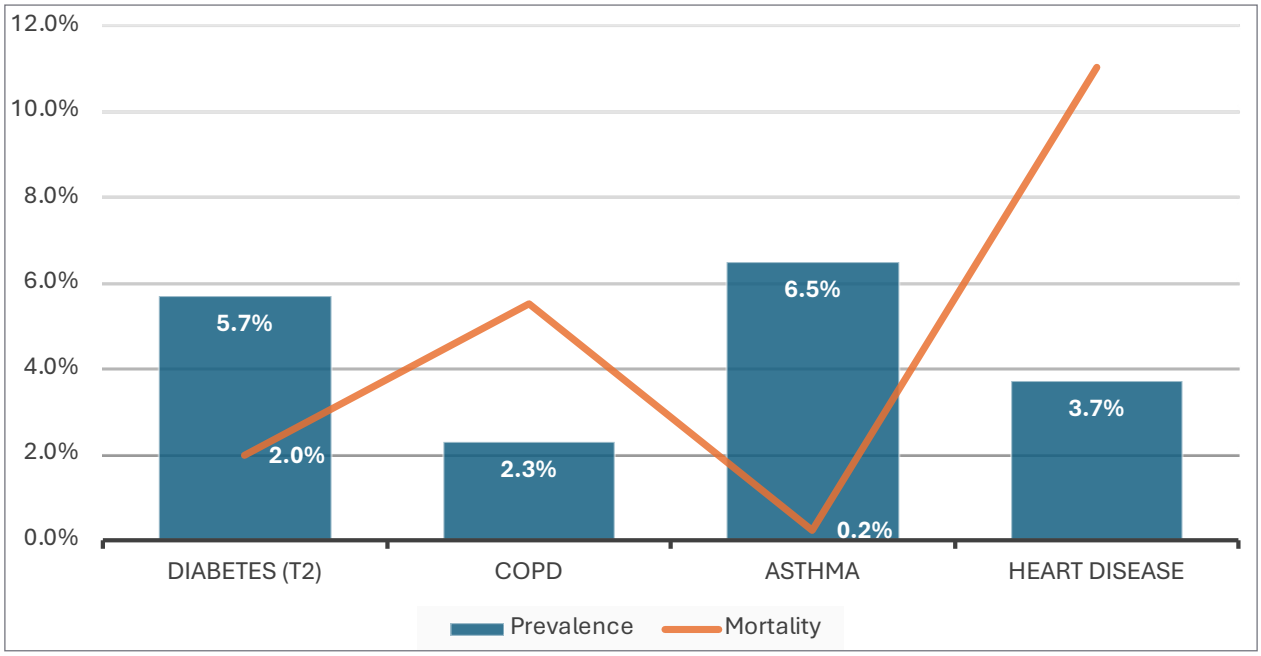


Figure 6 compares the prevalence and mortality rates of these conditions. Asthma has the highest prevalence (6.5%) but lowest mortality (0.2%), while Heart Disease has the highest mortality (11%) with a lower prevalence (3.7%). This mismatch between prevalence and mortality highlights the varied burden of Long Term Conditions – some are widespread, but more manageable (e.g. asthma), while others are less common but have higher mortality (e.g. heart disease).

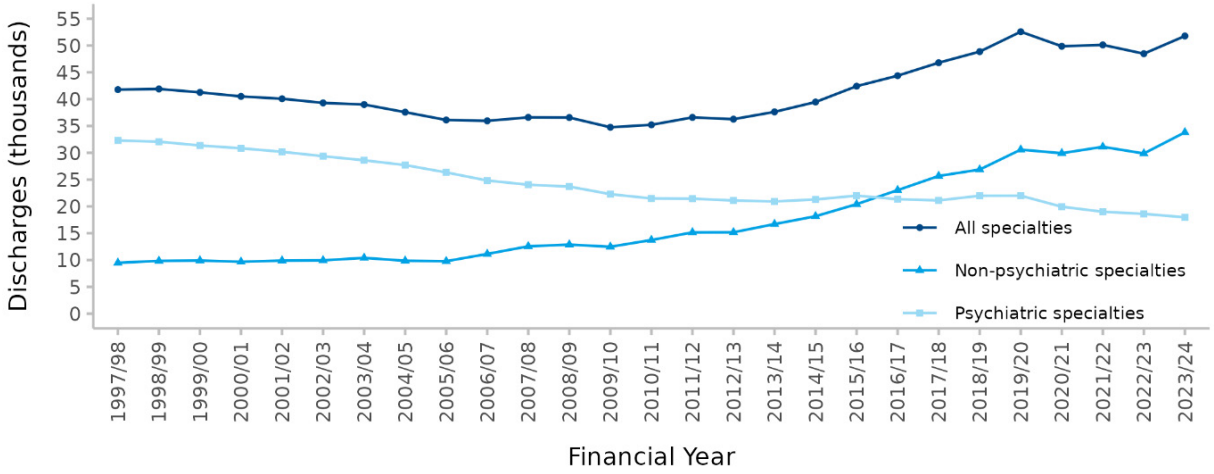
In Scotland, Long Term Conditions account for a large proportion of both illness and health service use. Inequalities are stark: rates of heart disease, COPD, and Type 2 Diabetes are significantly higher in more deprived areas, contributing to Scotland's widening health inequalities gap. Trends show increasing multimorbidity, earlier onset in deprived populations, and rising costs to the NHS. Focusing on prevention, addressing missingness (as discussed in chapter 4), early diagnosis, and equitable care are all essential if we are to reduce the burden and close these health inequality gaps.

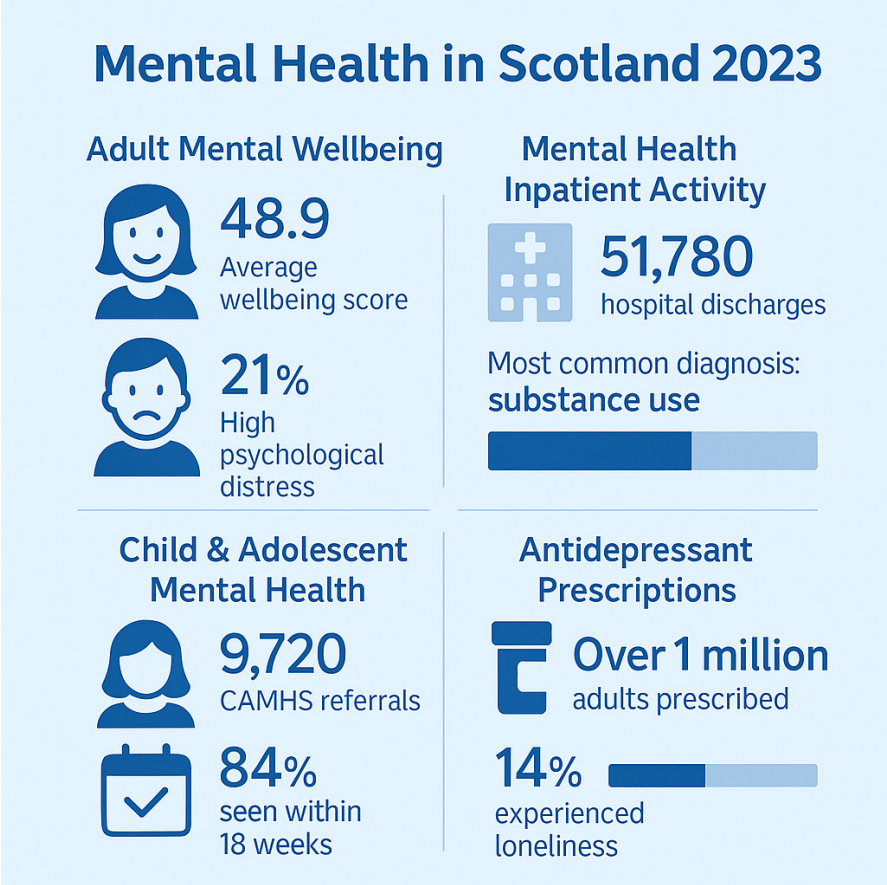
Mental Health

Evidence from the Scottish Health Survey suggests that following two years of decline, **adult mental wellbeing improved in 2023**, but remains lower in deprived groups.

While an improvement is encouraging, it is too early to be certain whether this increase represents a trend.

Figure 7 Mental Health discharges 1997/1998 - 2023/2024 in Scotland





Source: Public Health Scotland

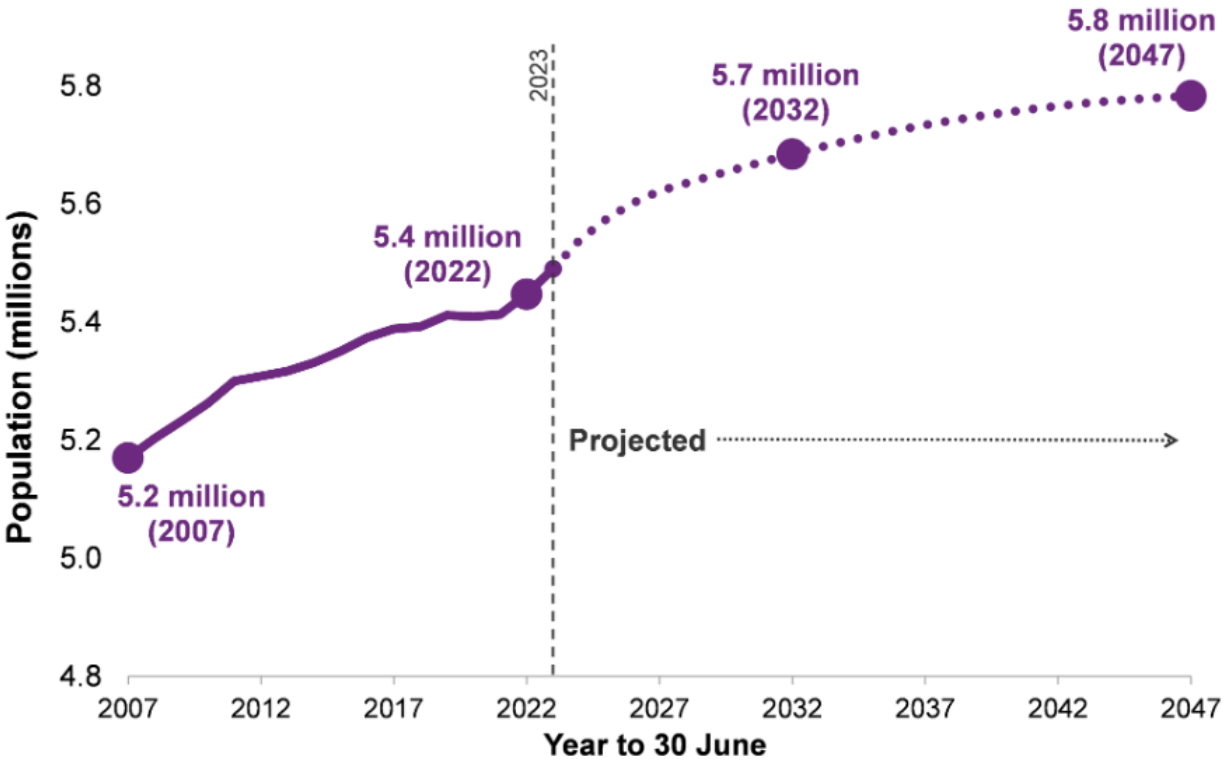
An Ageing Population

In Chapter 2, I examine the demographic shifts of Scotland's ageing population and highlighted the opportunities for everyone in Scotland of recognising and investing in the virtuous cycle that exists between health and wealth.

I also highlight the contribution of older people to Scotland's workforce. As workers age, **those who remain healthy are more likely to have less episodes of long-term sickness absence**.

Since 2015, there have been fewer births than deaths. **The gap between births and deaths is predicted to widen over the next 25 years**. However, positive net inward overseas migration is projected to bridge the gap between births and deaths over this period.

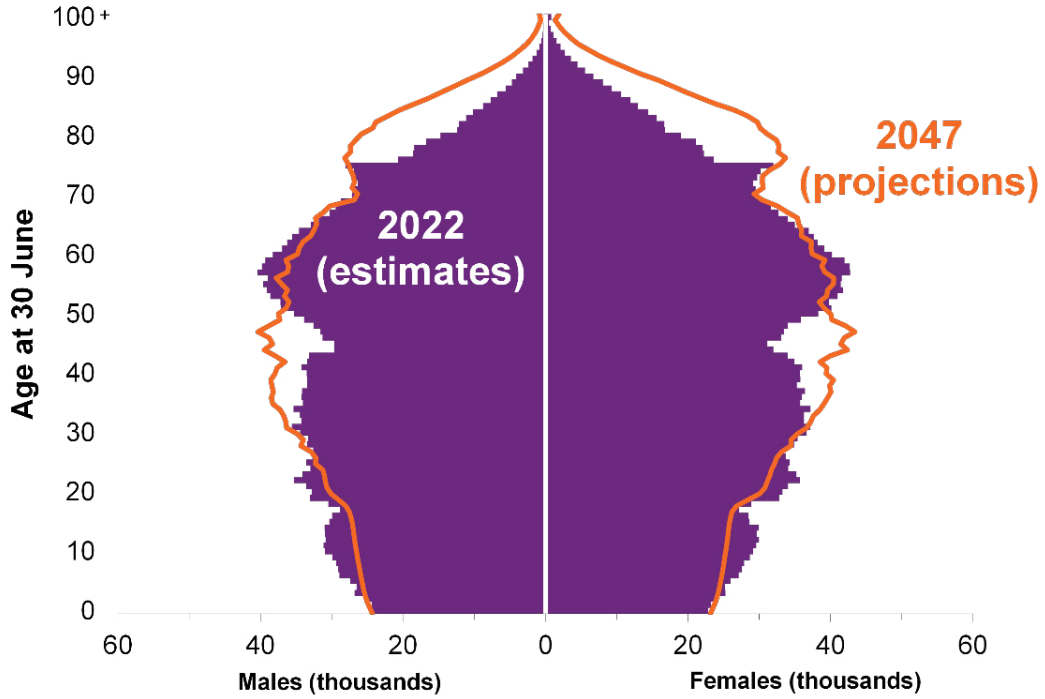
Figure 8 Scotland's population is projected to continue increasing



Note: The scale on the y axis does not start at zero.

Figure 8 shows the **projected number of people aged 75 and over in Scotland by 2047**. Over the same period the number of younger people is projected to fall whilst the number of people between aged between 30 and 55 will also likely increase.

Figure 9 Scotland is projected to have more older people and fewer younger people in mid-2047 than in mid-2022



Much of the disease that we face in the future can be prevented and we must pursue the objective of prevention with urgency. **The Scottish Burden of Disease study** suggests that there will be a 21% rise in illness experienced by our population by 2043, two thirds of which is accounted for by cardiovascular disease, cancer and neurological conditions.

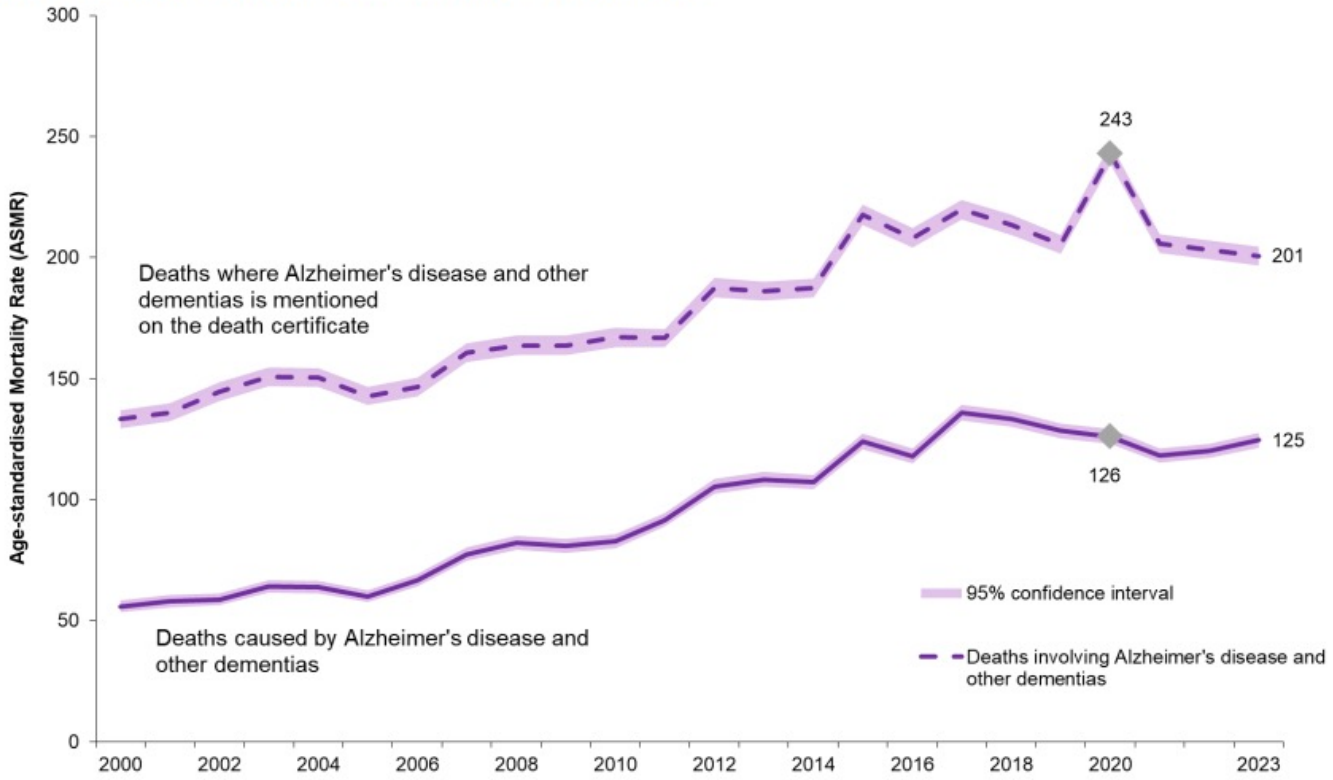
The Scottish Fiscal Commission (SFC) also **forecasts healthcare funding could increase**. Health spending is the largest and fastest-growing area of the Scottish Budget. As a proportion of the Scottish population, people aged over 85 are predicted to nearly double, an increase predicted to occur earlier than elsewhere in the UK. The commission suggests this could contribute to an average annual budget shortfall of 1.5% between 2030–2031 and 2049–2050. How the population's health changes as it ages can influence the scale of health-related public spending. If we can support the people we care for to age well and remain healthier for longer, significant improvements in health could be achieved as well as supporting people to be economically active for longer too.

Dementia

Dementia and other main causes of ill health in older people share many preventable risk factors. The research evidence-based estimate of **the number of people living with Dementia in Scotland is approximately 90,000 people**.

It is notable that the Lancet commission report of Dementia prevention, intervention and care highlighted that up to **45% of all Dementia is potentially preventable** through lifestyle and structural changes. It is commendable that the Scottish Government has invested in the development of Dementia data and has commissioned Public Health Scotland to develop a new Dementia Index which will help us better understand the size and scope of the challenge to our population's health.

Figure 10 Dementia and Alzheimer's deaths, 2023



In 2023, **the registered cause of death of 6,491 people was Dementia** in Scotland- a 3% increase from 2022, with a mortality rate of 125 deaths per 100,000 people- more than double the rate in 2005. Around two-thirds (66%) of deaths were among females, and over 84% of all deaths occurred in those aged over 80. Most deaths from dementia occurred in care homes (63%), followed by hospitals (22%) and then home settings (14%).

While dementia was once under-reported as a cause of death, it is now more commonly listed on death certificates. This reflects growing recognition that dementia often plays a central role in the decline that leads to death, even if another condition (such as delirium or aspiration pneumonia) is the principal cause.

Loneliness

In chapter 2, I discuss the contribution of loneliness to ill health. Loneliness is a significant public health challenge in Scotland impacting both physical and mental wellbeing. Individuals who experience loneliness are reportedly twice as likely to be diagnosed with depression. **Loneliness is also a significant independent risk factor for dementia (30% increased risk)**.

Conclusion

If we are to address the health challenges that lie ahead, it is not only our health and care system that must have a greater focus on prevention, but all parts of society, including national and local government, public services and the voluntary and commercial sectors. I remain optimistic that the forthcoming Population Health Framework will provide this much needed focus.

If we can support the people we care for to be healthier for longer, significant improvements in their health could be achieved, allowing them to experience life, contribute to their families and communities and remain economically active for longer too.

Acknowledgements

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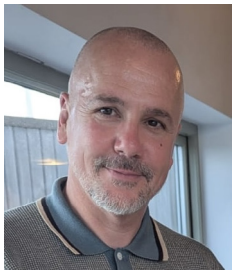

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Pete Rawcliffe
Head of the People and Places Activity, NatureScot

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Mountain Leader

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