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MIND THE GAP

SUMMARY

How data, digital and technology can help Scotland recover from Covid-19, transform health & social care and boost our economy

SUMMARY

Closing Scotland's Data Gap

COVID-19 has tested Scotland like perhaps never before. From the NHS to care homes to community pharmacy, health & social care are on the frontline of our emergency response to the global pandemic. The sector has made important progress in harnessing data, digital and technology to tackle the virus – particularly through the Test and Protect strategy, the Protect Scotland app, the expansion of online video consultations and more timely ethical data sharing.
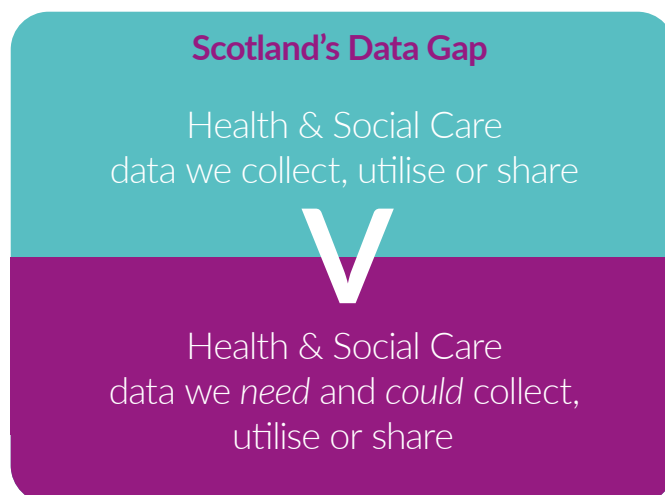
But there is much more still to do. Even before the pandemic, Scotland faced a series of major and escalating public health challenges and crises which will continue to damage our society and the economy if they are not tackled, preventing our nation and its people from achieving our potential.

We need to learn the lessons of COVID-19. A healthy society is essential for a healthy economy. Access to real-world health & social care data has informed and enhanced decision-making and policymaking throughout the crisis, helping to identify and control outbreaks, develop appropriate restrictions and roll out vaccines.

Long-term, strategic investment in health & social care innovation is critical. New and emerging technologies – enabled and underpinned by ethical, robust and secure data – can and should play a vital role in transforming health & social care.

Nations which recognised these priorities long before the pandemic – albeit with different political and health systems, such as Singapore, South Korea and Taiwan – have better utilised data, digital and technology to respond more swiftly and more successfully to the virus. Their action and investment has saved lives, protected livelihoods and minimised disruption to daily life.

If we act now to close Scotland's Data Gap between the health & social care data we have and the health & social care data we need, there will be big social and economic gains for everyone. As we look to recover and build resilience from the COVID-19 crisis, it has never been more important.

Scotland's Data Gap

Health & Social Care
data we collect, utilise or share

V

Health & Social Care
data we *need* and *could* collect,
utilise or share

Our Vision for 2024

Our vision is of a health & social care sector transformed by the Fourth Industrial Revolution, harnessing data, digital and technology to close Scotland's Data Gap, deliver big social and economic gains and improve public health to among the best in Western Europe by 2040.

We believe Scotland can become a world leader in data, digital and technology in public health, attracting health & social care professionals and researchers, entrepreneurs and innovators, investors and industry, from around the world.

We believe Scotland can build on our strengths across the public, private and third sectors to close the Data Gap. Our nationally integrated, publicly owned NHS is globally unique. Our data, life sciences and tech sectors are diverse, growing and supported by a renowned ecosystem of world-class academics, research universities and new centres of expertise and innovation.

However, in the global recovery from COVID-19, Scotland has a narrow window of opportunity to establish itself as a world leader and to win the global race for investment, jobs and inclusive growth to boost our economy.

Researchers and industry are primarily interested in insights from aggregated, anonymised data at a regional and national level, rather than identifiable health & social care data at an individual level, which could potentially breach personal privacy if not used in the right way. Personal health & social care data must be ethical, secure and anonymised as far as possible with robust and transparent governance arrangements. Data must be trustworthy

Social and Economic Gains

Data saves lives, time and money. Harnessing and sharing data, digital and technology in health & social care can deliver big gains for patients and service users, staff, communities and taxpayers through improved care, better outcomes, higher productivity, lower costs and new jobs.

Scotland's health & social care data could be worth an estimated £800 million every year for our society and our economy. Big Data Analytics could also deliver an estimated £5.4 billion in savings for NHS Scotland, 38% of its current budget and three times its predicted budget shortfall by 2025, which could be reinvested in health & social care. The health tech sector could be Scotland's next key growth sector to rival FinTech.
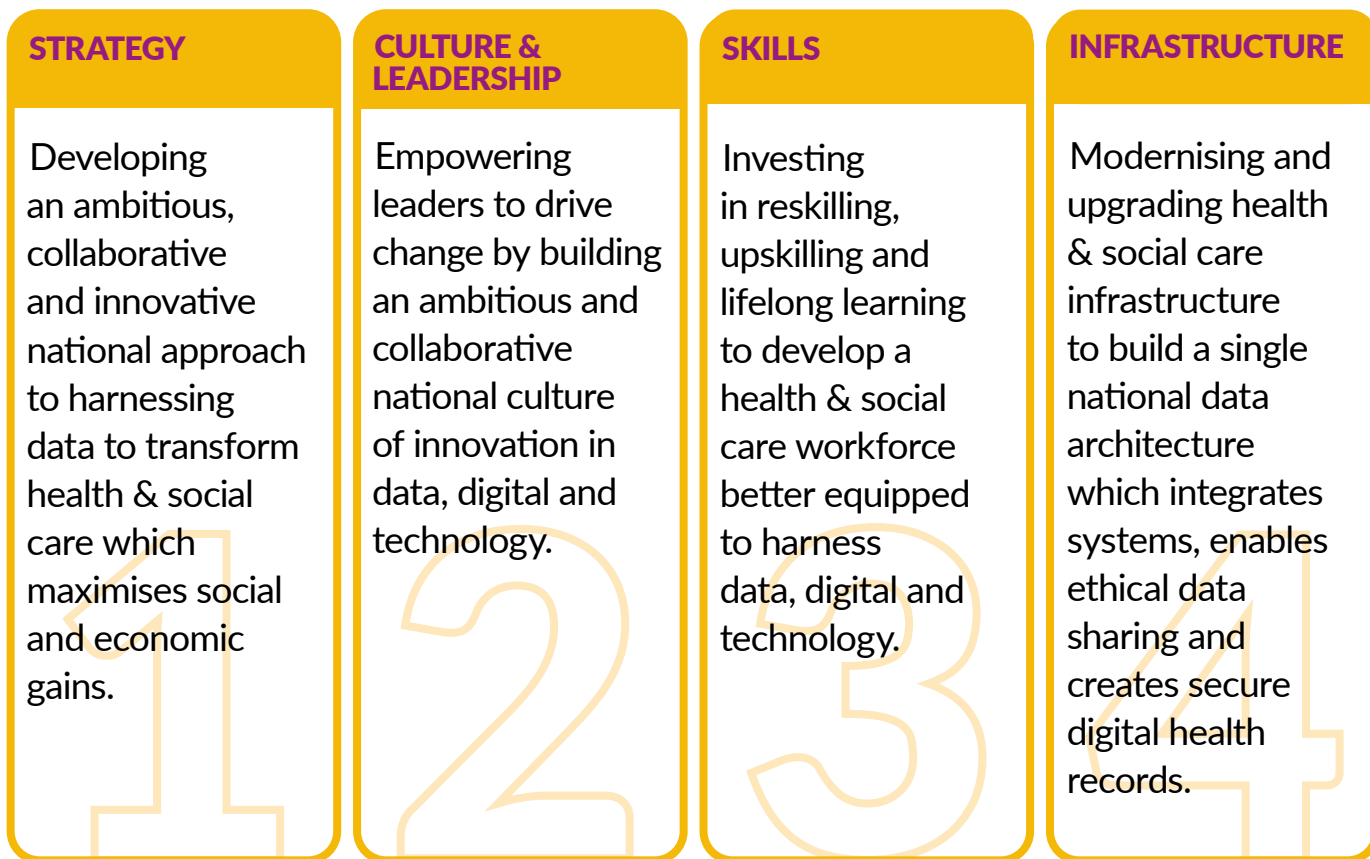
Overview of Social and Economic Gains

Social

- ➥ **Saving lives and delivering better outcomes for patients and service users**
- ➥ **Improving physical and mental health, wellbeing and quality of life**
- ➥ **Reducing health inequalities**

Economic

- ➥ **Attracting investment and creating jobs**
- ➥ **Reducing economic inactivity and sickness absence**
- ➥ **Increasing productivity and inclusive growth**
- ➥ **Easing demand pressures on health & social care staff and services**
- ➥ **Delivering value and protecting the long-term future of the NHS**

Four Pillars of a New Data Strategy for Health & Social Care

We welcome the Scottish Government's commitment in the Programme for Government 2020/21 to 'create a dedicated data strategy for health & social care for the first time'. We believe that this new national Data Strategy – due to be published later in 2021 – should be backed by a Health & Social Care Transformation Fund which invests in strengthening four key pillars to close Scotland's Data Gap:

STRATEGY	CULTURE & LEADERSHIP	SKILLS	INFRASTRUCTURE
Developing an ambitious, collaborative and innovative national approach to harnessing data to transform health & social care which maximises social and economic gains.	Empowering leaders to drive change by building an ambitious and collaborative national culture of innovation in data, digital and technology.	Investing in reskilling, upskilling and lifelong learning to develop a health & social care workforce better equipped to harness data, digital and technology.	Modernising and upgrading health & social care infrastructure to build a single national data architecture which integrates systems, enables ethical data sharing and creates secure digital health records.

The Scottish Government is leading the development of the new Data Strategy. However, the new Data Strategy and the Transformation Fund should also be designed and delivered in partnership with the diversity of partners and stakeholders across the sector – especially citizens, patients and service users, and including the voice of staff and industry – to build understanding, trust, support and agency across our society and our economy as the foundation for the future of health & social care.

SCOTLAND'S DATA STRATEGY FOR HEALTH & SOCIAL CARE

Strategy | **Culture & Leadership** | **Skills** | **Infrastructure**

Trust & Transparency

Strategy

Successful small nations are more agile and can unite behind a national mission. Scotland is small enough to link and manage health & social care data together nationwide, while also big enough to provide a demographic critical mass for research and insights by global academia, industry and others.

But Scotland's historic approach to health & social care data innovation has often been incremental. There has been a failure to scale-up nationally. Despite the extraordinary spirit of partnership and collaboration during the pandemic, the health & social care landscapes remain complex, fragmented and siloed. The lack of a common commitment or approach to issues such as data standards or governance is a barrier to collecting, sharing and harnessing ethical and secure data.

The new Scottish approach should be focused on driving forward innovation at pace and at scale for the benefit of all. The new Data Strategy for Health & Social Care in Scotland will be an essential part of our recovery from COVID-19 and must be aligned – in its design and in its delivery – with Scotland's many other relevant strategies for the sector.

Culture & Leadership

Change should be people-led to overcome cultural barriers. NHS Scotland, service providers and health & social care professionals should be risk-aware rather than risk-averse, flexible to new ways of working and open to collaboration for the common good with public, private and third sector partners. There should be strong, joined-up leadership at a political level and across government and the public sector to drive change and build a national culture of innovation.

Health & social care needs to attract, retain and nurture data champions at all levels and in all areas, as well as act to increase workforce diversity. Senior leaders and decision-makers need to have the personal and professional experience and expertise which the sector needs to understand, support and implement cultural and technological change.

There needs to be more action to invest in data research and innovation, identify and spread best practice and accelerate national scale-up. Public Health Scotland's Data Driven Innovation directorate could act as such a hub for Scotland's national culture of health & social care data innovation.

Skills

Health & social care's workforce has proven extraordinarily flexible and resilient in its emergency response to COVID-19. But they will need support to adapt to the disruption of the Fourth Industrial Revolution, working alongside technology to harness data. Existing roles will change, new ones will be created, some may be displaced. The health & social care workforce of the future will need to be data and digital ready. 90% of all NHS jobs will require digital skills by 2040.

Everyone will need to be data and digital literate, as well as understand data privacy and security. Many will need to interpret data to gain insights and deliver applied intelligence. Some will need practical skills to service, maintain and protect tech infrastructure. The sector's informatics workforce of data scientists and analysts will require investment to expand Big Data Analytics capacity.

Reskilling, upskilling and lifelong learning for all health & social care workers, at all stages and in all careers will be essential. Developing knowledge and skills in data, digital and technology, and exploring related ethical and safety issues, should be a core part of all health & social care learning, from undergraduate and postgraduate degrees to work-based learning and CPD. Employers and educators will have to keep pace with change and refresh curricula more frequently.

Infrastructure

Health & social care needs the right physical and digital infrastructure to close the Data Gap and achieve our vision. The sector lags others in the use of technology. Much of the sector is burdened with archaic, inadequate or obsolete technology and equipment. Many facilities and workers struggle without basic software and hardware or with poor connectivity. The NHS estate and Scotland's wider health & social care infrastructure urgently requires significant investment to get the basics right, while also unlocking opportunities to prepare for an accelerated transition to a high-tech future.

The sector's myriad systems do not link to or communicate with each other, preventing access to or ethical and secure sharing of data. The openness, integration and interoperability of data sets and systems to create a single national data architecture – underpinned by common data standards – would facilitate ethical and secure data sharing at a national level and the creation of a single, comprehensive digital health record for everyone in Scotland across primary, secondary, tertiary and social care. The ongoing project by NHS Education for Scotland to build a National Digital Platform for health & social care is an important first step.

Fully integrated personal data giving a holistic picture of patients' and service users' experiences and outcomes could then be ethically and securely accessed by health & social care professionals to enhance patient care and better inform clinical decision-making for the short-term benefit of individuals. Consistent, high quality aggregated, anonymised Big Data at a national or regional level could be accessed by researchers and innovators for the long-term benefit of all.

Our Key Recommendation

➔ **The Scottish Government's new Data Strategy for Health & Social Care should be backed by a Health & Social Care Transformation Fund which invests in Strategy, Culture & Leadership, Skills and Infrastructure to close Scotland's Data Gap.**

ACKNOWLEDGEMENTS

Design www.uprightcreative.com