REFORM

Future government: data-driven, citizen-centric

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London

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Hosted by

BT

Agenda

8.30 - 9.00	**Registration and refreshments**
9.00 - 9.10	**Welcome and introduction** Dr Simon Kaye, Director of Policy, *Reform*
9.10 - 9.50	**Keynote speech** Sir Alex Chisholm, Chief Operating Officer and Permanent Secretary, Cabinet Office
9.50 - 11.00 In partnership with **BT**	**Panel one – Data-powered government** Data sharing across Whitehall departments is key to unlocking modern, effective and streamlined services. During the pandemic, government acted rapidly to improve its collection and use of data, transcending departmental boundaries to find solutions at a time of national emergency. Yet while this proves the potential of data, siloed working persists across Whitehall, preventing government from realising the full benefits. Data has the potential to radically transfrom how government operates, from nudging behaviour, automating processes and enabling upstream interventions. This panel will discuss how government uses data and what needs to be done to realise its full potential. Sue Bateman, Chief Data Officer, Central Digital and Data Office Richard Corbridge, Director General, Chief Digital and Information Offficer, Department for Work and Pensions Daljit Rehal, Chief Digital and Information Officer, HMRC Ed Stainton, Director, BT Government
11.00 - 12.10	**Panel two – Personalised, preventative and high-performing: the future of health** Across the health system, data has the potential to completely transform how healthcare is delivered. From personalising care and empowering patients, through predicting and preventing disease, to cutting the cost of treatments and improving patient safety, the smart use of data holds the promise of securing far better health outcomes. It is also key to driving better value and boosting performance, including through the interrogation of regional variation in provider outcomes and spreading best practice. This panel will explore the full potential of data to transform healthcare, and the steps needed to realise those benefits. Ming Tang, Chief Data and Analytics Officer, NHS England Ben Goldacre, Director, Bennett Institute for Applied Data Science Dr Axel Heitmueller, Director, Discover-NOW and Managing Director, Imperial College Health Partners
12.10 - 12.15	**Closing remarks**
12.15 - 13.00	**Lunch**

Our mission

Britain has endured a decade of disruption. With ongoing global tensions and deep uncertainty this era of crisis looks set to continue. Add to this the profound demographic and technological change already reshaping the nation, and it is clear that securing our future prosperity will require a fundamental rethink.

At *Reform*, we believe that Britain's prosperity is inextricably linked to the health of our public services and the effectiveness of the State. Yet the public service institutions and approaches we rely on are modified versions of those built as part of the post-war settlement. The challenges that faced 1940s Britain are not those of today. Continuing to tweak a broken system, hoping for radically different outcomes, won't work.

Instead, we want to see a public service model that reduces demand rather than simply manages it. We want to see a settlement that recognises that the welfare of the people cannot – and should not – be delivered by the State alone. And we want to see a State that acts in the long-term interests of the nation, and that is agile and fiscally sustainable.

We firmly believe that is possible to have excellent public services within sound public finances, but that achieving it requires bold new thinking.

Today's conference is focused on one of the key enablers of that vision: data. For years, the promise of data-driven public services has felt tantalisingly close. Yet even today, with so many exemplars of the transformative power of data, we have been unable to realise its potential at a systemic level due to poor quality and inconsistent standards; legacy systems, poor infrastructure and a lack of interoperability; insufficient capability and awareness; and needless barriers to data sharing. To achieve a more effective, productive and citizen-centric State, this has to change.

By bringing together reform-minded leaders, experts and practitioners today, we know we will identify innovative applications and smart ways of overcoming these barriers.

Thank you for joining us.

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Our team

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Data-powered government

Data has transformed our world– it can still transform our government

Dr Simon Kaye
Director of Policy
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Imagine, for a moment, if the COVID-19 pandemic had occurred a couple of decades earlier.

In the mid-1990s, there was no information economy: there were no social media to harness for safety messaging (or worry about as a source of misinformation). In 1994, the UK government's website was called 'open.gov.uk', succeeded by 'Ukonline' in 2001. They were not very interactive, even if you did have a connection with which to access them (in 1998, only 9% of UK households had an internet connection). Ukonline let you apply for a passport or a TV license, but online guides, complex safety resources, and test result processing would have been beyond reach.

The 'mobile web' only appeared in 1996, and at first almost nobody had a device that could make reasonable use of it: most personal devices then weren't capable of sending and receiving data the way we'd recognise now. So the idea of an 'NHS App', a home for vaccination records and passports; or a 'Covid-19 App', which identifies probable encounters with someone who tested positive to the virus; or a state-supported symptoms study app, collating user responses to help map the progress of infection – these would have still been in the realm of science fiction.

Since then, data has transformed the world. The UK's response to the pandemic was data-driven and enabled by the application of contemporary technologies. And there is almost no part of the government machine that could not be similarly transformed by the effective use of data.

But it is also revealing to reflect on what has *not* progressed since the 1990s.

Healthcare records are still often fragmented across different providers, making it difficult for practitioners to offer the best care. Local government bodies sometimes operate in silos, with data on housing, social care, and education stored in incompatible systems, hampering the ability to deliver cohesive services.

The need for change is clear. To truly reimagine public services, the UK government must cultivate a fertile environment for data integration where information can be securely shared and leveraged for the public good.

Harnessing data will also empower policymakers with real-time insights, enabling them to make informed decisions rapidly. This responsiveness is crucial, not just in times of crisis but day-to-day, with the potential to provide services that are not only responsive but also predictive and personalised.

When we imagine the future of government in the UK, data must be at the forefront. The transition to a more data-centric approach will require investment in technology, skills, and infrastructure, as well as a cultural shift within government – one that values data literacy.

These are goals which are made more urgent in times of economic turbulence, not less. The prize would be a future where government services are not only more sustainable, but also as dynamic and adaptable as the needs of its citizens.

Personalised, preventative and high-performing: the future of health

Unlocking the potential for a data-fuelled NHS

Rosie Beacon
Research Manager
@BeaconRosie

The term 'data' can undoubtedly be overused. We hear so often that it is the 'new oil' or 'game-changing' that it's easy to dismiss it as overblown hype, rather than a genuinely useful tool for government. But any policymaker would underestimate the value of data – especially in healthcare – at their peril.

The NHS has more than 1.6 million clinical encounters on an average day: collecting data on each of them can help transform patient care and build a more efficient service. Population health data gathered by a range of public services can help us better understand the root causes of illness, target resources more effectively to tackle them, and evaluate whether policies are proving effective. Data sharing with researchers and industry can help develop cutting-edge treatments, further boost our burgeoning life sciences sector, and make England a research and innovation superpower.

In recent years, government has made real progress in getting the nuts and bolts right to help realise the potential of health data. The Wade-Gery review paved the way for a reorganisation of central bodies to put data at the heart of the NHS. The recent 'Data Saves Lives' paper set out an ambitious strategy to build a stronger national health data architecture. And progress is being made in integrated care systems throughout the country to join-up datasets and better understand care needs.

But some of the potential remains untapped, and there is still a way to go to make England the world's most advanced health data ecosystem.

Despite the progress outlined above, fragmented data remains a real cause for concern – too often data is collected and used in siloes, rather than linked effectively to drive transformation across whole patient pathways. While England has no shortage of health data, its quality and usability is highly varied, and our health service currently lacks the analytical workforce necessary to unlock its full potential. And those world-class analysts who work in the system often find themselves in the back office instead of the boardroom, furnishing requests for data from above, rather than driving change from within.

Fortunately, none of these challenges is insurmountable. There is huge appetite across our health system to put data at the heart of care and a genuine policy focus on overcoming data challenges at every level. A data-led revolution in health and care has never felt closer.

Putting data to work in the public sector

Daljit Rehal
Chief Digital and
Information Officer,
HMRC

In the digital age, data is the currency of progress. It fuels innovation, drives decision-making, and underpins the success of businesses, organisations, and governments alike. The importance of data cannot be overstated, as it shapes our daily lives and paves the way for a more efficient and informed world.

Data is being created every day at a colossal rate. 90% of the world's data was created in just the last couple of years and there's an expectation that this rate will keep on growing. And, as the data grows. it's becoming more diverse and more distributed, as are the sources of the data: whether it's from images, texts, smartphones, smart watches, call centres or elsewhere. How we manage and organise our data is more important than ever before.

Government holds huge amounts of data. In HMRC, as across all of government, we are harnessing the power of such information to enhance our decision making and improve our services.

To give just a few examples:

- **Data-Driven Decision Making**: HMRC uses data analytics to inform tax policies and strategies. By analysing tax data and economic trends, we can develop policies that are fair, efficient, and responsive to changing economic conditions.
- **Enhanced Public Services**: HMRC's use of data extends to improving public services related to taxation. For instance, using data analytics to detect tax fraud and ensure compliance, thereby safeguarding government revenue and ensuring a fair tax system.
- **Cybersecurity and Privacy**: HMRC places a strong emphasis on data security and privacy. We deal with attempted cyberattacks every day and have robust measures in place to protect taxpayer information, ensuring it remains confidential and secure.

Data-powered government is not a static concept but an evolving one. As technology advances, we need to continually refine our approach to data analytics and data-driven decision making. The future looks very exciting. AI is just one area that we have yet to fully explore, but it has so much to offer in terms of enhancing human innovation and efficiency.

In conclusion, data-powered government represents a paradigm shift in how nations operate and how public services are delivered. By harnessing the power of data, governments and agencies can make more informed decisions, improve public services, and enhance transparency and accountability. In HMRC and across government, we are committed to making this happen.

Placing data at the heart of government

Sue Bateman
Chief Data Officer,
Central Digital and
Data Office

Data is being seen as either a cure-all or something to be feared.

In reality, it is an enabler to our shared ambitions for a brilliant civil service, wider public sector, and UK economy. It is critical for us all to become comfortable in talking about and using data to drive change.

I've had the privilege of working on a number of key government data and digital transformation programmes over the past decade, including the G8 Open Data Charter, the startup programme to introduce data science into government, data sharing under the Digital Economy Act, and more recently, the cross-government Data Marketplace.

I have found that the key to success is focusing on finding practical and deliverable solutions to what can often feel like very abstract or complex challenges.

Recent high-profile conversations on AI and generative AI have put a spotlight on technology and security. My fellow data colleagues inside and outside government are making the point that data is just as important – and that data quality, management, governance, ethics and transparency come to the fore as enablers for AI applications.

So, the big questions are: how do we fully recognise data as a significant enabler for our ambitions? How do we integrate conversations about data into our general business and service delivery? And how do we do so in a way that builds trust and confidence?

There are many ways we can address this, but there are three areas I want to highlight:

- **Leadership and advocacy**: leaders who can understand and advocate for innovative but responsible uses of data and who sit at the executive decision-making level.
- **Investment in our strategic assets**: assets held by organisations that could be used more effectively across government to reduce duplication, error and waste, benefitting citizens and taxpayers.
- **Openness and collaboration**: critical to trust and confidence is the way we engage, communicate and work in partnership with groups and individuals on how we are using data and deploying AI.

We have already made great strides, but we have a way to go – and we will only achieve our vision if we see it as a collective challenge.

The keys to unlocking digital in government

Simon Godfrey
Senior Director,
External Engagement
& Business Growth,
BT

"If you were asked to create a government delivery machine from scratch right now, you certainly wouldn't start from where we are today, nor would you likely end up here either." Senior government official, October 2023

Data is, without question, the fuel for so much change to come. Many conversations between government and industry have incrementally nudged the needle forward, but we are still not changing at the rate we should. The pace of tech-enabled change is always at least one step ahead of our collective capacity to change. As a result, we have not yet fully embraced tech and data to improve productivity for the benefit of every UK citizen.

It's time for a different conversation – but why?

Without stronger collaboration, the aspirations of government change and delivery are unlikely to happen in the time frame we need. Without new focus, there's a risk of further incrementalism. The time to take action is now!

To that end, there are three fundamentals that must be addressed: capacity, capability, and courage. Of course, there are many other things to factor in – supply chain issues, the rise of AI, the Cloud, and so on – but if we don't tackle the 3 Cs, we are in deep trouble.

On capacity, we are all living through challenging times. An economy awash with capital and a greater risk appetite is now long gone, and is unlikely to return soon. We need to collectively pick our challenges more wisely. We cannot do everything. Equally, capacity is also about the ability of suppliers to withstand economic shocks and sustain service delivery. Small is not always 'beautiful' and scale matters.

On capability, we need to develop a way of working that joins up capabilities in a more synergistic manner. One that embraces the aggregation of tools and talent and does not simply follow the well-worn logic that 'competition drives out cost and improves quality'.

On courage, this is about taking leaps of faith and developing a different way of working. It's long been said that 'agile' is the way to do this, but there is scant evidence that this has delivered at scale. Courage means working on joint challenges, with a better understanding of each party's intent, outcomes and drivers.

All 3 Cs are essential when trying to move the needle. They are the key to thinking about future government, data, and the need to orient services around the complex needs of the UK citizen.

A brighter future for UK health and care

Dr Axel Heitmueller
Director,
Discover-Now and
Managing Director,
Imperial College
Health Partners

The year is 2033:

John is concerned about a skin lesion on his right arm and photos it via the NHS app. A central online dermatology screening service harnesses AI to provide a rapid and accurate diagnosis. The photo is assessed, and it turns out to be a harmless infection treatable with anti-fungal cream. John is issued with a digital prescription that he can immediately collect from any pharmacy, or he can choose to have it delivered direct to his home for a small fee.

Jada has a family history of breast cancer. She had routine genomic screening aged 20 and at 40; fortunately, she does not have any of the known genetic risk factors. However, she regularly receives tailored insights, best practice screening and information on the latest care options via the NHS app.

Jasmine, 34, is long-term unemployed due to a mental health condition. In the past, she would frequently attend A&E. However, her council housing provider is running a visiting service to support healthy living. This provides Jasmine with support at home, and she is now on a programme jointly run by the NHS and the employment service to reintroduce her to regular work.

Happy 85th birthday National Health Service!

There is much to celebrate. Beveridge and Bevan would be proud of how far we've come. It has not been easy to keep up with ever-growing demands, reorganisations, and rapid scientific and technological progress. But the NHS has proven it can evolve without compromising its core principles.

Success over the past decade has been built upon a commitment to put population health at the heart of all plans to unlock economic growth and sustained government support for reform. Specifically, reform has focussed on four pillars:

- **Personalisation** – services are now truly tailored to individual needs and context.
- **Democratisation** – AI has helped level the playing field between care professionals and patients, services are increasingly devolved, and Personal Health Accounts allow everyone to access healthcare services, whenever and wherever they need them.
- **Accountability** – public transparency of outcomes has created a continuous learning and improvement cycle amongst providers, the learnt helplessness and command-and-control culture of the past have all but disappeared.
- **Sustainability** – we have rebalanced investment from sickness care to prevention, enabling people to live healthier lives and reducing demands on frontline NHS services.

These changes required courage. But they have been worth it. Our NHS is now built on strong and sustainable foundations and our population is becoming healthier, providing the fuel for rapid and sustained economic growth.

Here's to the next 85 years!

Embedding data and analytics into the NHS: the future of healthcare

Ming Tang
Chief Data and Analytics
Officer,
NHS England

Our Data Saves Lives strategy highlights the importance of data and analytics in supporting the NHS. It is key to delivering personalised and preventive healthcare, enabling the targeting of effective treatments based on genetic makeup, lifestyle, and medical history.

Preventative healthcare focuses on keeping people healthy and well, supporting people with the right information to make healthy choices, and to access early detection and intervention.

We can use data and analytics to identify areas where we can change how we deliver for patients and implement evidence-based interventions, improving healthcare in England through:

- **Predictive analytics**: identifying people at high risk of developing certain diseases, such as cancer or heart disease, allowing us to target them with early detection and intervention services to save lives and improve health outcomes.
- **Precision medicine**: identifying the most effective treatments for individual patients, based on their genetic make-up and other factors, from those already being used to treat diseases.
- **Population health management**: identifying and addressing the health needs of populations, to develop and implement public health interventions, such as vaccination campaigns.
- **Clinical decision support**: providing clinicians with real-time information and insights to help them make better decisions about patient care.
- **Resource allocation**: supporting informed decisions about how to allocate resources within the NHS – identifying areas of high need and ensuring funding is directed to the most effective services.

We are still in the early stages of our journey to use data and analytics. However, we have made significant progress and are working to address some of the challenges:

- **Data sharing**: improving how data is shared across the NHS and with other partners, allowing a more complete picture of each patient's health and social care needs.
- **Data quality**: improving the quality of data that is collected and used; ensuring that data is accurate, complete, and up-to-date.
- **Data skills**: developing the data skills of NHS staff at all levels.
- **Public trust**: building public trust in how data is used, providing transparency over how data is collected and used, and giving patients control over their own data.

As Chief Data and Analytics Officer for NHS England, I am committed to addressing these challenges, so that we can continue to use data and analytics to create a healthcare system that is personalised, preventative, and high-performing. If we get this right, it will help us all to live longer, healthier, and happier lives.

Join us in 2024

As an educational charity, *Reform* produces robust, evidence-led research with innovative but implementable policy solutions; and we convene reform-minded people from across the political spectrum to advance open debate and generate fresh thinking.

In a nutshell, we are home to bold ideas and big conversations.

We bring together like-minded individuals and organisations who share our commitment to finding innovative solutions to public policy challenges. Our Corporate Partnership programme is part of this impactful network.

We value the commitment of our partners very highly. We pride ourselves on building strong and mutually beneficial relationships, and work with our partners so they can get the most out of joining our network.

To find out more, please contact india.woodward@reform.uk.

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