



TONY BLAIR INSTITUTE FOR GLOBAL CHANGE

Health in the AI Era

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TBI Offices

- Global Headquarters
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The AI era presents new challenges that health systems must deal with

“

Realizing the benefits of AI requires a platform approach that does more than just gather a collection of innovative digital tools under one roof

”

J Halamka, Mayo Clinic, 2023

Countries are increasingly aware of how fundamentally different the AI era is from post-war era when most of their health systems were established

Characteristics of the AI era	Health System Features
Fragmentation	Unity
Prediction	Prevention
Agency	Empowerment
Complexity	Personalisation
Pace	Agility
Risk Exposure	Risk Protection

But AI is also part of the solution, driving both productivity and prevention

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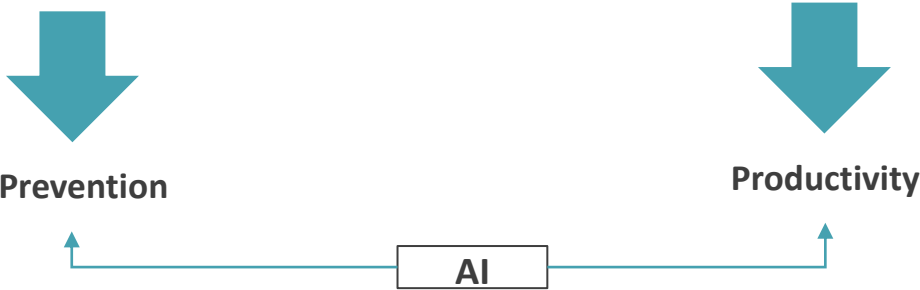
How you understand, master and harness this technology revolution will define the place of this country and the shape of the world

”

Tony Blair, 2023

Traditional health systems are too labour intensive and expensive to scale and they are crowding out investment in other areas of public life

Future Demand Challenges	Future Capacity Challenges
Incidence of NCDs (Lifestyle illnesses like obesity)	Workforce
Communicable disease (inc. pandemics)	Funding
Antimicrobial Resistance	Digital infrastructure
Climate Change	Inefficient models of care
Drive to ensure Universal Health Coverage	
Advances in Biotechnology and medical treatment	



We can already see AI driving prevention and productivity globally

Prevention:

- Public Health
- Primary Care
- Population Health Management
- Empowered Patients
- Health in all Policies

Productivity:

- Operational efficiency
- Clinical Decision Support
- Administration support
- Precision Medicine

Operational Efficiency:

“Care Traffic Control” systems to optimise patient flow and Robotic Process Automation to streamline back-office admin



Health in all policies:

Use of AI to review evidence and prioritise policies that impact health



Public Health: AI powered disease surveillance, contact tracing and public health messaging

Consumer Empowerment:

AI powered Closed Loop Pancreas to support self-management T1DM



Population Health Management : Use of AI to identify high-risk populations and develop targeted interventions and optimise resource allocation.

Clinical Decision Support: AI powered monitoring and decision support to improve outcomes and efficiency in Intensive Care



Precision Medicine: Use of AI in clinical trials, drug discovery and personalised treatments



Primary Care: AI powered NCD management system

Countries need an end-to-end plan to stimulate, regulate and assimilate AI

A. Stimulation of AI development in health

1

Data and Digital Infrastructure

- 5G network capability
- Digital Health Records
- Digital ID

Estonia

- **98%** have an ID card
- **100%** have an Electronic Health Record (EHR)
- **20%** have their genome mapped
- **1%** of GDP earmarked as state funding for IT

2

Data sharing & Interoperability

- Open Standards
- Data governance
- Stakeholder collaboration

United States

- **Legislation:** 21st Century Cures Act promotes open APIs
- **HIMSS:** global role in setting industry standards for data sharing and interoperability

3

Innovation Support

- AI Strategy
- Public Funding
- Public-Private Partnerships

China

- Public funding of national technology innovation programs (subsidy not investment) e.g. \$256bn for the Little Giants program
- 2 new stock exchanges for tech

B. Regulation

4

Regulatory Frameworks

- Ethics and bias
- Privacy, security & trust
- Safety and effectiveness
- Siloed regulators

Singapore

- Modern AI governance framework balancing innovation and risk
- Parallel public information campaigns to deliver data literacy and build trust
- Need for global alignment

Countries need an end-to-end plan to stimulate, regulate and assimilate AI

C. Assimilation of new AI technologies in health

5

Adoption and Spread

- Innovation Agencies
- Transparent outcomes
- Patient Choice

South Korea

- Korean Health Industry Development Institute (KHIDI) dedicated to promoting and supporting development of healthcare industry
- Data driven health policy, investment in education and R&D and PPP's.

6

Workforce Agility

- Workforce Planning
- Education and reskilling
- OD and pathway design

Australia

- Australian Digital Health Agency (ADHA) published a strategy for health workforce agility
- The plan focuses on digital literacy, micro-credentialling and systems leadership

7

Primary Care Infrastructure

- Omni-Channel Access
- Polyclinics
- Teams Based Care
- Integrated Care

Netherlands

- 24/7 Primary Care: ED attendance rate 1/3 of UK
- GP most popular specialty due to autonomy, work life balance, collaboration, good medical workforce planning and pay

8

Risk Pooling Function

- Role of the state in protecting high risk individuals from catastrophic healthcare costs

United Kingdom

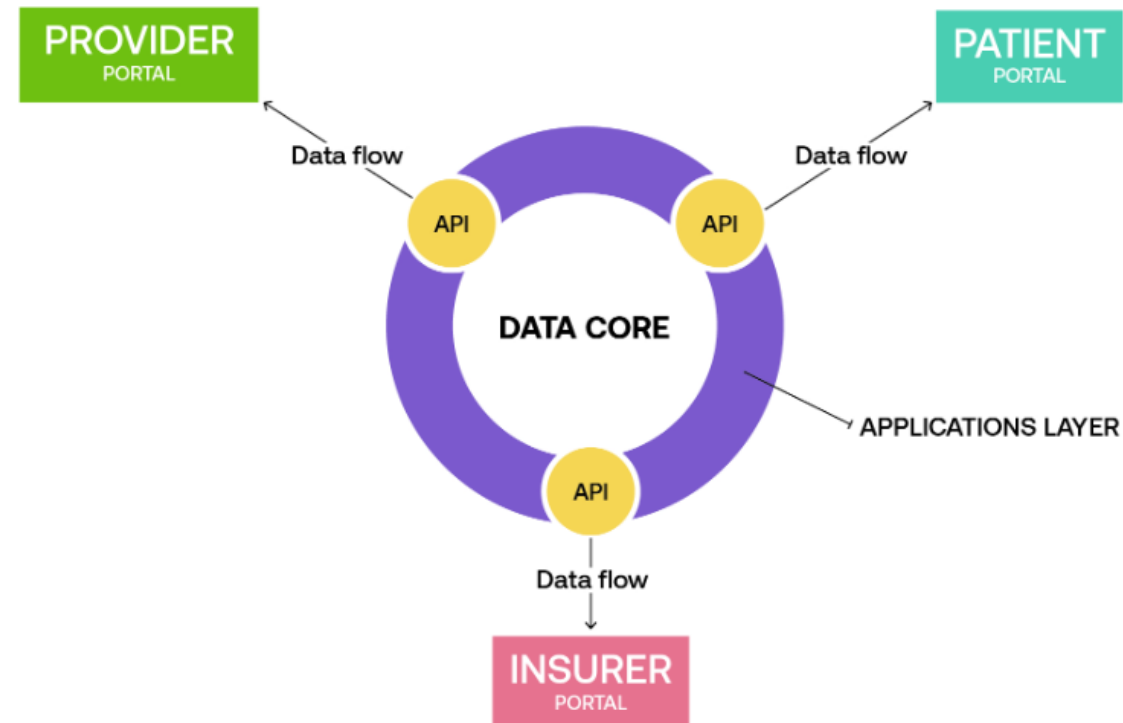
- Commonwealth Fund: (2021): UK citizens reported lowest rates of cost related access issues
- Scope of services challenged by decreasing fiscal space

Digital Health Records are the foundational building block of modern health systems



“Single Patient Record (SPR)”

Applied to a comprehensive dataset, AI can help us to understand risk and to understand how best to mitigate that risk.



Consumer facing AI needs a regulated marketplace to drive choice and agency



“Digital front door”

The NHS App could finally put patients at the heart of a new NHS – one aligned to the needs and expectations of modern citizens and designed to evolve.

Reimagine the NHS App:

Ensure Emphasis on **Consumer-Driven Design**

Avoid **Fossilising Old Models of Care** in New Technology

Double Down on **Personalised Prevention**

Ensure Co-Development of the NHS App and **Single Patient Record**

Put the NHS App at the Heart of the Planned Redesign of **Clinical Pathways**

Integrate the NHS App With **Private-Sector Providers**

Increase the Ambition for **Speed** of Rollout

The NHS App Should Be a **Universal Digital Offer** for Citizens

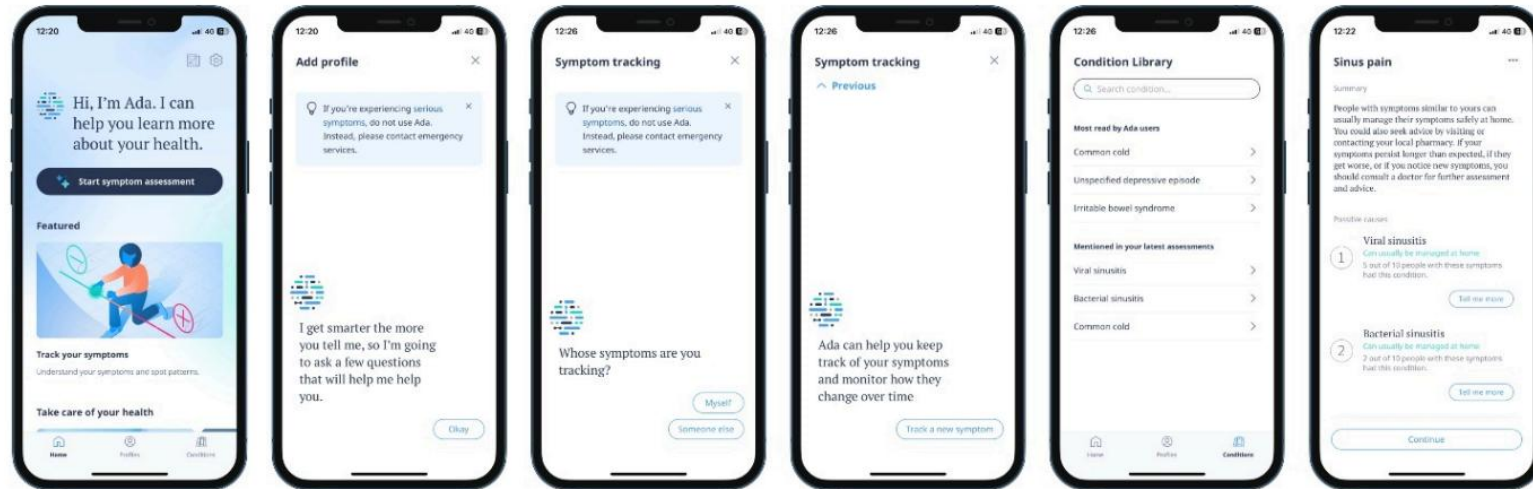
A complex provider landscape needs smarter navigation systems



“Doctor in your
pocket”

The doctor in your pocket is an expert in you, the NHS and cutting-edge medical diagnosis and treatment.

California's Ada Health app

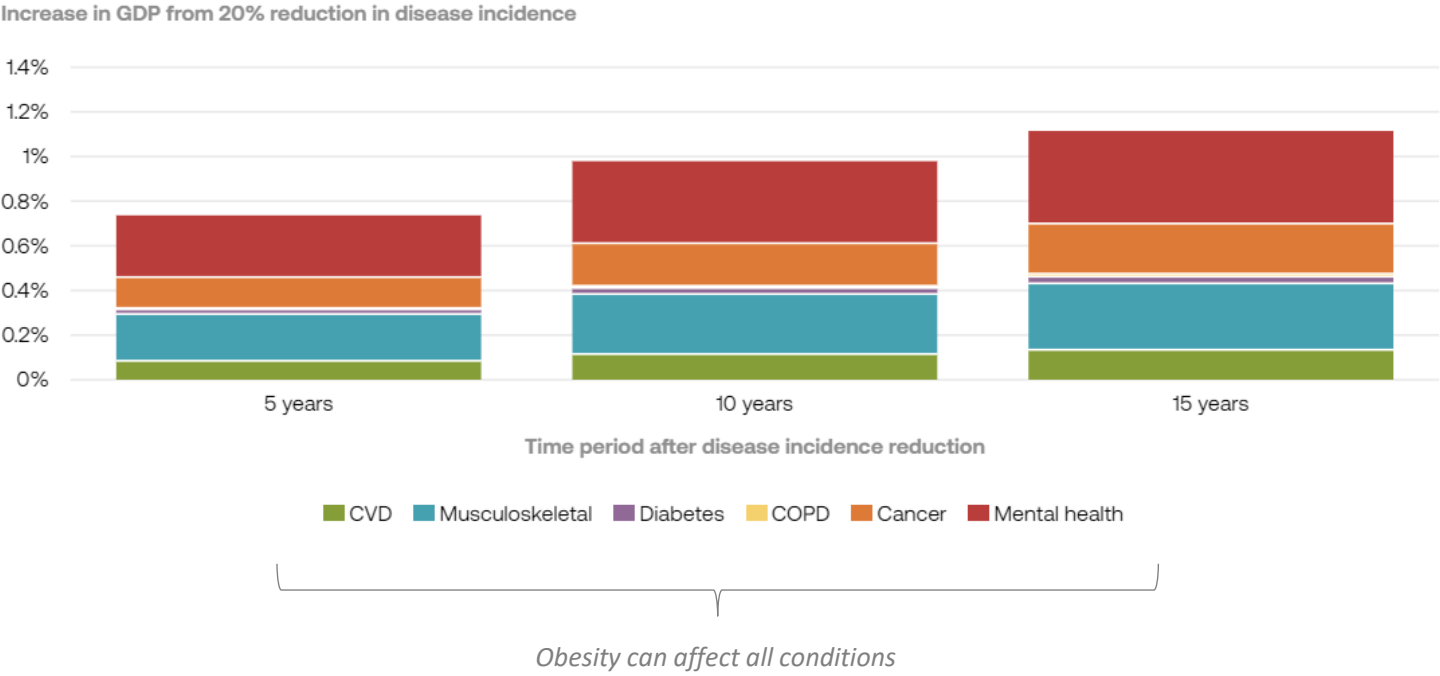


There is a strong economic imperative for prevention

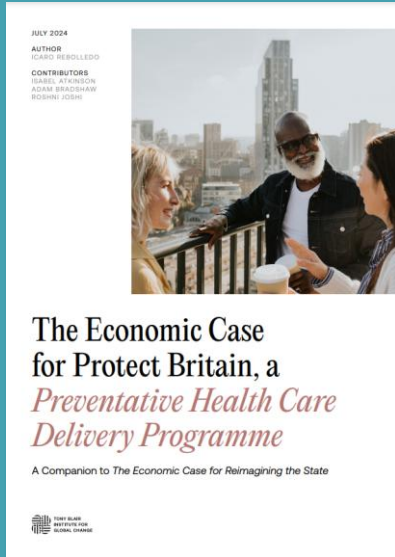


“The Case for Prevention”

The economic case is not just about cost containment – it’s about growth. A 20% reduction in the incidence of 6 common conditions could raise GDP by 0.75% in 5 years and 0.98% in 10.

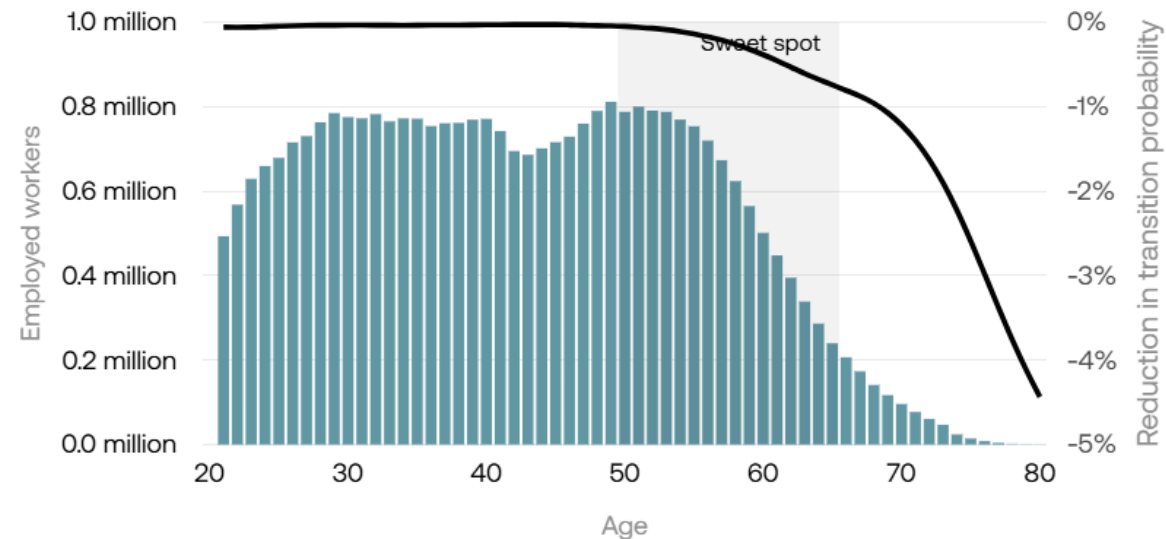


Prevention needs a convenient retail offer for working age adults to engage



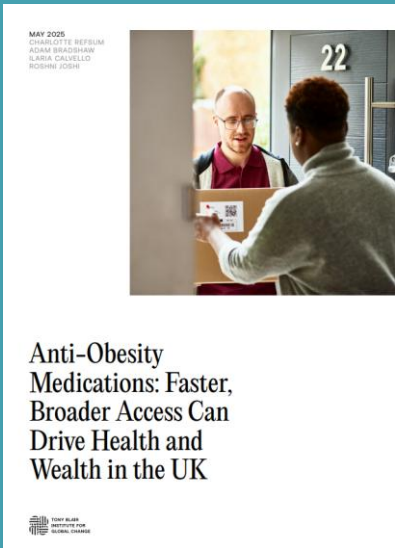
“New Models of Care for Prevention”

We can't rely on traditional primary care services to roll out prevention – we need low-cost, light-touch models of care with a convenient retail offer.



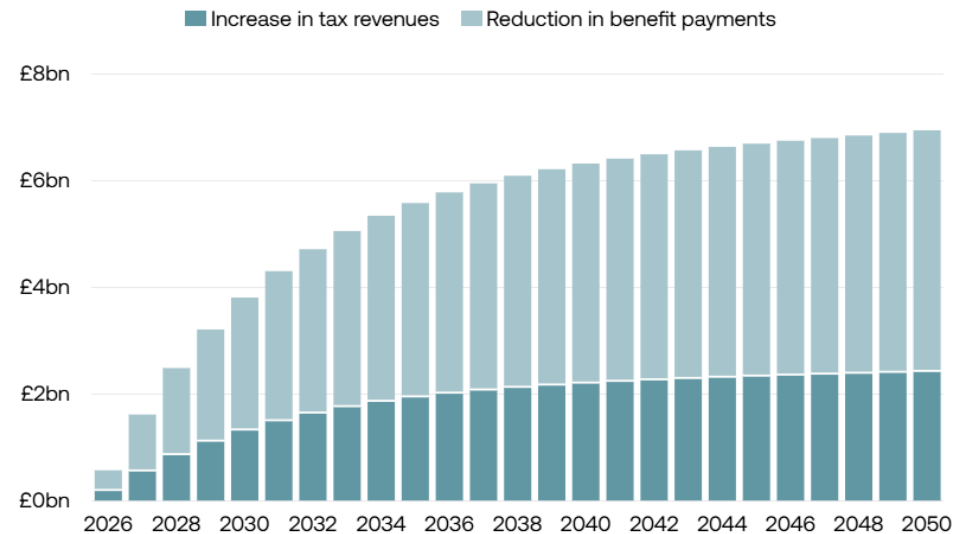
Source: Authors' calculations based on Yannick Schindler and Andrew Scott (2025), "The Macroeconomic Impact of Chronic Disease in the United Kingdom"

Weight loss medications tested our commitment to prevention



“The Basket of Goods”

Under TBI assumptions, DWP spending could be expected to reduce by £2.08 billion at five years and £3.47 billion at ten years.



Source: Yannick Schindler and Andrew Scott (2025), “The Macroeconomic Impact of Chronic Illness in the United Kingdom”; OBR ready reckoners



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Thank you



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