Can technology and data save the NHS?

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National Director: Operations & Information, NHS England

@mswindells
The NHS needs to deliver now and in the future

- 3,000 beds
- 3 x hospitalisation rate compared to last year

NOW

A&E performance (all) - % 4 hours or less

NEXT

Top G8 levels of investment in health tech & pharmaceuticals

Improving productivity and removing unwarranted variation

Safest prescribing in Europe

Best use of genomics globally

Reduced data burden

Better managed demand through digital first self-care

www.england.nhs.uk
The NHS performs well by international standards

Commonwealth Fund analysis (2017) showing UK as highest performing health system of 11 developed countries

If funding for the English NHS matched France levels, the NHS would receive an additional £11bn in funding.
All parts of the system are overloaded, but is it with the right people in the right place?

- Up to 50% of patients attending A&E could potentially have their needs met elsewhere.
- Up to 27% of patients seen by their GP could have their needs met elsewhere.
- Up to 50% of patients attending A&E could potentially have their needs met elsewhere.
- Up to 30% of patients in a hospital bed need care in a different setting.
- 66% of people want to die at home but only 24% do.
- 10.3% of people are carers for elderly or sick.

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Technology to support urgent and emergency care system transformation

- Up to 50% of patients attending A&E could potentially have their needs met elsewhere
- 27% of patients seen by their GP could have their needs met elsewhere
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Self care
- Pharmacy
- Online self triage
- NHS 111
- GP
- Urgent Treatment Centre
- A&E
- Hospital bed
- Home, nursing or residential care

- eSCR
- ePrescribe
- Tele/video consult
- Clinical decision support
- Direct booking

66% of people want to die at home but only 24% do
10.3% of people are carers for elderly or sick

www.england.nhs.uk
Flawless execution
e-RS Paper Switch Off Programme – Progress

Trusts achieved paper switch off

- 65 Trusts have now delivered paper switch off
- National utilisation of e-RS in March 2018 is 67%\(^1\)
- Of the remaining 85 trusts, the vast majority will be on track to achieve their paper switch off date prior to October 2018. There are following Trusts are the highest risk:

<table>
<thead>
<tr>
<th>Region</th>
<th>Trust</th>
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<tbody>
<tr>
<td>South</td>
<td>Portsmouth Hospitals NHS Trust</td>
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<tr>
<td>M&amp;E</td>
<td>East And North Hertfordshire NHS Trust</td>
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<tr>
<td>M&amp;E</td>
<td>Worcestershire Acute Hospitals NHS Trust</td>
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<td>M&amp;E</td>
<td>University Hospitals Coventry And Warwickshire NHS Trust</td>
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<tr>
<td>London</td>
<td>Great Ormond Street Hospital for Children NHS FT</td>
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<tr>
<td>South</td>
<td>Queen Victoria Hospital NHS Foundation Trust</td>
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<td>South</td>
<td>Western Sussex Hospitals NHS Foundation Trust</td>
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<td>South</td>
<td>Oxford University Hospital NHS Foundation Trust (GDE)</td>
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<td>South</td>
<td>Brighton And Sussex University Hospitals NHS Trust</td>
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<td>South</td>
<td>Hampshire Hospitals NHS Foundation Trust</td>
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<td>South</td>
<td>Isle Of Wight NHS Trust</td>
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<td>North</td>
<td>Liverpool Heart And Chest Hospital NHS Foundation Trust</td>
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<tr>
<td>M&amp;E</td>
<td>South Warwickshire NHS Foundation Trust</td>
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<tr>
<td>London</td>
<td>Kingston Hospital NHS Foundation Trust</td>
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<td>London</td>
<td>St George's University Hospitals NHS Foundation Trust</td>
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<tr>
<td>London</td>
<td>Epsom And St Helier University Hospitals NHS Trust</td>
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<tr>
<td>London</td>
<td>Imperial College Healthcare NHS Trust (GDE)</td>
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<tr>
<td>London</td>
<td>University College London Hospitals NHS Foundation Trust</td>
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\(^1\)Based on MAR returns
Optimising value

Data reporting issues

Current RTT Non-reporters:

<table>
<thead>
<tr>
<th>Trust</th>
<th>Last Reported</th>
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<tbody>
<tr>
<td>Barts</td>
<td>Aug-14</td>
</tr>
<tr>
<td>St. Georges</td>
<td>May-16</td>
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<tr>
<td>Gloucestershire</td>
<td>Nov-16</td>
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<tr>
<td>Northern Devon</td>
<td>May-17</td>
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<tr>
<td>East and North Hertfordshire</td>
<td>Aug-17</td>
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<tr>
<td>Mid Essex</td>
<td>Dec-17</td>
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Issues with SUS+

<table>
<thead>
<tr>
<th>Trust</th>
<th>Issues since</th>
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<tbody>
<tr>
<td>Bradford Teaching Hospitals NHS Foundation Trust</td>
<td>Aug-17</td>
</tr>
<tr>
<td>Warrington and Halton Hospitals NHS Foundation Trust</td>
<td>Nov-17</td>
</tr>
<tr>
<td>The Royal Wolverhampton NHS Trust</td>
<td>Feb-18</td>
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<tr>
<td>Lincolnshire Community Health Services NHS Trust</td>
<td>Feb-18</td>
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<tr>
<td>Birmingham Women's and Children's NHS Foundation Trust</td>
<td>Mar-18</td>
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<tr>
<td>Queen Victoria Hospital NHS Foundation Trust</td>
<td>Mar-18</td>
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<tr>
<td>The Christie NHS Foundation Trust</td>
<td>Mar-18</td>
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<tr>
<td>Chesterfield Royal Hospital NHS Foundation Trust</td>
<td>Mar-18</td>
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<tr>
<td>Isle of Wight NHS Trust</td>
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</tbody>
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Bed management

• Accurate and real time

E-Rostering

• Glorified spreadsheets
• Staff certainty and flexibility
• Aligning skills and experience to patient need
• Open up data
• Support system bank

Primary care

• Structured data capture
• Share data
The future of systems is supported by systems
We are bringing NHS leadership together around STPs and ICSs

Emerging thinking on potential future operating model:
Ambitions for UEC transformation work streams 2018/19

**Ambitions for 2018/19**

- **NHS 111 Online**
  - Implementation of the NHS 111 Online service to 100% of the population by December 2018.

- **Integrated Urgent Care**
  - Access to enhanced NHS 111 services to 100% of the population, with more than half of callers to NHS 111 receiving clinical input during their call.

- **Primary Care**
  - Delivering access to extended evening and weekend GP services for 100% of the population by October 2018.

- **Ambulances**
  - Ensure that the new ambulance response time standards that were introduced in 2017/18 are met by September 2018. Handovers between ambulances and hospital A&Es should not exceed 30 minutes.

- **Urgent Treatment Centres**
  - Continue to roll-out standardised Urgent Treatment Centres open 12 hours a day, seven days of the week, staffed by clinicians with access to diagnostics and bookable via NHS 111.

- **Hospitals**
  - Continue to make progress on reducing delayed transfers of care (DTOC), reducing DTOC delayed days to around 4,000 during 2018/19.

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- **Hospital to Home**
  - Continue to improve patient flow.
  - Continue to deliver front-door primary care streaming in A&E departments. Develop standardised clinical pathways, e.g. for frailty.

**Length of Stay**

- **Acute hospitals**
  - 25% reduction in number of patients waiting 21+ days (‘super stranded’) - Volumes of discharges for non-elective patients same at weekend as weekday

- **Community health & care providers**
  - Increase in proportion of patients receiving care within 2 days of referral
  - Reduction in variation between weekday and weekend discharges

- **GPs**
  - Care home residents at risk of admission should first have a clinical assessment through a GP, paramedic or health professional
  - 100% extended access delivered by October 2018

- **Care homes**
  - Care home accept admissions (discharges from hospital) 7 days a week

- **Local Authorities**
  - Delivery of DTOC reduction target by October 2018
  - Delivery of target reduction for patients with a long stay in hospital (21+ days)
  - Assessments are undertaken and packages of care started 7 days a week
“If you look at the productivity of nurses using out of date IT systems, with a modern IT system they could be spending far more of their time with patients.

“If you look at the potential for artificial intelligence to help radiologists interpret scans, if you look at some of the things we are starting to do but could go a lot faster on like centralising procurement, there are lots of areas where we know that, with stability of funding, we could actually have a more efficient NHS.

“And that’s from the vantage point of being one of the most efficient healthcare systems in the world.”

Secretary of State Jeremy Hunt
9th May – Health Service Journal
Local health and care records

BI and change management

Friction-free administration and reporting

Population health

Back office disruption

Monitoring and patient advice

Research

Evidence into decision support

Paperless venues of care

Innovation and apps
We have aligned our IT strategy

<table>
<thead>
<tr>
<th>Empower People</th>
<th>Enable Clinicians</th>
<th>Integrate the Health and Care System</th>
<th>Better Management Information</th>
<th>Build the Future</th>
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<tbody>
<tr>
<td>NHS.UK</td>
<td>E-Prescribing</td>
<td>E-Capacity management</td>
<td>Single source of truth</td>
<td>Life sciences and research platform</td>
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<td>Apps Library</td>
<td>Global Digital Exemplars and Fast Followers</td>
<td>E-Scheduling</td>
<td>Frictionless Performance Management</td>
<td>Genomics and Precision Medicine</td>
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<td>Developers’ Ecosystem</td>
<td>Digital Academy and Workforce Education</td>
<td>Regional interoperability hubs</td>
<td>Population Health Dashboard</td>
<td>Machine Learning and AI</td>
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<td>WiFi and Home Page</td>
<td>GPSoC refresh</td>
<td>Urgent and Emergency Care</td>
<td>Analytics Capability</td>
<td>Bioinformatics Institute</td>
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<tr>
<td>NHS Online</td>
<td>Extended Summary Care Record</td>
<td>Elective Care</td>
<td>SUS for Transactions</td>
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<td>Integrated Care Plans</td>
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### Foundational Infrastructure Projects

- Patient Identity
- Information Governance and Transparency
- Interoperability and Enterprise Architecture
- Personal Health Record and APIs for Apps
- APIs / Standards
We are on the cusp of a revolution

1st generation

2nd generation

3rd generation

... don’t screw it up!

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