

Healthcare Challenge Areas - NHS Focus

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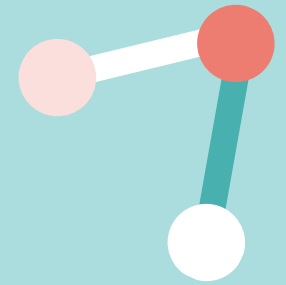
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Background and Context

- The NHS Long Term Plan
 - Driving just about everything
- Areas of interest
 - Some examples relevant to the CLASP Healthcare call

Please note this list is not exhaustive and any challenge currently facing the healthcare industry will eligible for CLASP.

Worth remembering....



The NHS is only 3% of the global health market

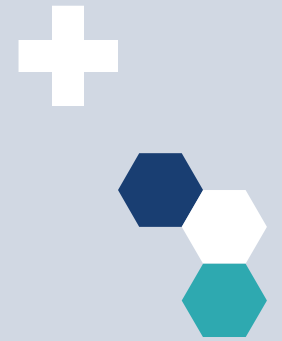


NHS Long Term Plan

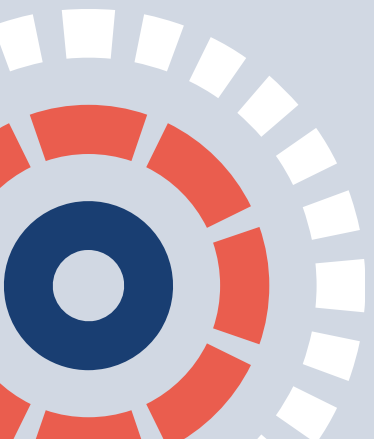
- Strategic
 - New Service Model
 - Fully integrated community care – transformed OOH
 - Release pressure on EDs – see [SBRI Healthcare Comp. 17 brief](#)
 - More patient control – self management and personalised
 - **Digitally enabled primary and outpatient care**
 - Better care for major conditions
 - Cancer
 - Adult mental health
 - Shorter waits for planned care

NHS Long Term Plan

- Strategic (continued)
 - More focus on Population health and Prevention
 - Wider social goals
 - Sustainability
 - Local economy
 - Supporting people with health conditions at work
 - More progress on major health conditions
 - Cardiovascular
 - Stroke
 - Diabetes
 - Respiratory disease
 - Research & Innovation



Let's get to details



Out of Hospital Care (Community care)

Context:

- Increased burden of people living with (multiple) long term conditions
- Increased demand on GPs (appointments, check-ups, monitoring of long term conditions)
- Target of significant reduction in outpatient visits,

Need

- New and improved technologies for patient self/guided-management and care

Examples:

- Remote/digital diagnosis and triage
- Home testing systems
- Remote monitoring and therapy
- Machine learning technology
- Remote/continuous monitoring devices/apps

Reduce Pressure on Emergency Departments

Context:

- Too much demand
- Too many non-essential visits
- Slow flow, discharge or admit to hospital

Need:

- Reduce flow in
- Increase the flow out

Examples:

- Rapid diagnosis technology
- Improved imaging techniques – Faster or at bedside
- Improved sensors/detectors for patient monitoring
- Community triage
- Cryogenic technology (e.g. brain cooling)

Improved Diagnostics

Context:

- Better support for faster clinical decisions
- Community-based testing

Need:

- More rapid results for
 - Personalised treatments
 - Early detection and diagnosis
 - Faster Prognosis & Treatment response

Examples include:

- Improved sensors/detectors for rapid detection of disease or injury
- Machine learning technology for diagnosis
- Nanotechnology
- Improved cancer detection/testing
- Image analysis technology
- In-ambulance testing/monitoring

Caution: PoC or faster may not be add any value

Mental Health and Rehabilitation

Context:

- Mental health and rehab priority
- System lack of capacity
- Staff shortages

Need:

- Continual/continuous engagement
- Self/guided management and therapy

Examples:

- Improved sensors/remote monitoring apps
- Image/video analysis technology
- AR/VR/Gamification

Healthcare Environment Monitoring

Context:

- Need for improved infection control - AMR
- Covid-19 pandemic

Need:

- Improved environmental healthcare monitoring.

Examples:

- Improved bio-security technology (e.g. airport monitoring)
- Improved/automated genomics/bioinformatic searches, and quality control
- Rapid detection/mapping of incidents and outbreaks
- **Please note – this call should not be used for specific COVID-19 related projects. Applications addressing COVID-19 specifically will be rejected**

Sustainability

Context:

- NHS net zero-Carbon by 2040
- Single use plastic reduction – consumer, clinical and supply chain
- Air quality improvement

Need:

- Application of best technologies to healthcare
- Avoid landfill and/or incineration

Examples:

- Improved sterilisation technologies
- New materials for single use
- Recycling technology

Research & Innovation

Context:

- LTP priority
- Accelerated Access

Need:

- More participation in research & innovation
- Speedier adoption of new technology

Examples:

- Supporting Clinical Entrepreneurs
 - Collaborating with clinicians
 - Engaging clinicians in generating and validating ideas
 - **Patient and Public Involvement & Engagement**
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- Implementation Framework – [System Support Offer](#)

Contacts

For more information on Healthcare areas, or to discuss potential project ideas please contact the STFC Office.

Additional information can be found though:

- [National Healthcare Photonics Centre](#)
- [STFC Healthtec Cluster](#)
- [NIHR Infrastructure Office](#)
- [STFC External Innovations Office](#)

Further reading

- [NHS Long Term Plan](#)
- [NHS Long Term Plan Implementation Framework](#)
- [Sustainability Development Unit](#)
- NHSX – [Digital Standards Framework \(Beta\)](#)
- NICE [Evidence Framework for Digital Health Technologies](#)