Potential for scale and spread of technology-enabled remote monitoring of blood pressure at home

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Background

- Hypertension is an important public health issue given its prevalence and links to risks of cardiovascular disease.
- National initiatives have long sought innovative approaches to support patients with hypertension
- Home monitoring of blood pressure has been found to be effective in improving blood pressure control in patients with hypertension
- Yet details are limited on the nature of remote monitoring service pathways and implementation processes
- Our evaluation was focused on technology-enabled remote monitoring of blood pressure at home

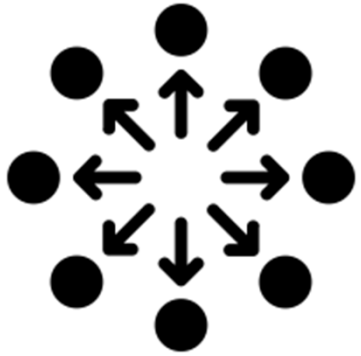
Project Aim and Research Questions

To increase understanding of how healthcare services that focus on remote monitoring of blood pressure can be designed, implemented, spread, scaled and sustained to optimise patient outcomes and impacts on health services in the United Kingdom.

- **RQ1:** How is tech-enabled remote monitoring of blood pressure implemented? (i.e. examining variety in approaches taken)
- **RQ2:** How can implementation challenges be addressed?
- **RQ3:** How do different approaches to delivering remote blood pressure monitoring in the NHS affect patient uptake, experience and outcomes and the health service (e.g. utilisation, demands on staff)?
- **RQ4:** How do considerations related to inequalities impact on the design of these services and how does the service design impact on efforts to address inequalities?
- **RQ5:** What can we learn about ways to spread, scale and sustain good practice in tech-enabled remote blood pressure monitoring?

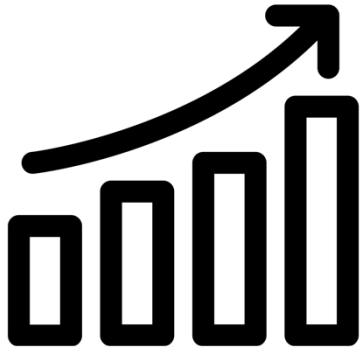
Scale, Spread and Sustainability

Spread



Growth of service beyond the original context over time to other practices in the locality

Scale



Growth of service over time to reach additional patient groups or expanding to new uses

Sustain

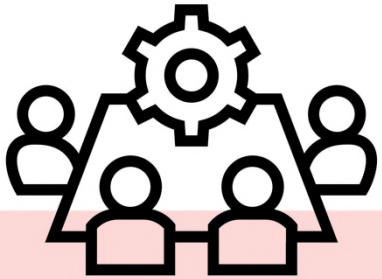
Maintaining an intervention over time

Papoutsi C, Greenhalgh T, Marjanovic S. Approaches to spread, scale-up, and sustainability. *Elements of Improving Quality and Safety in Healthcare*.

Approach

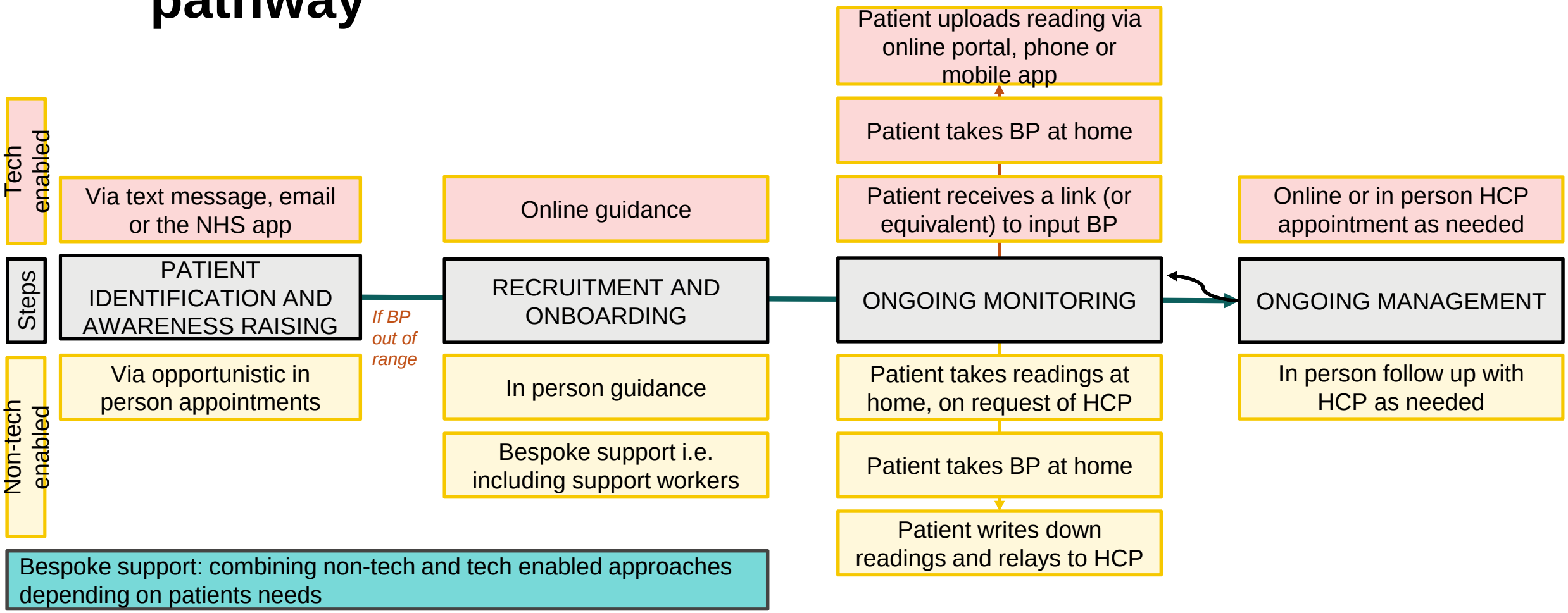
Scoping interviews (n=30) and targeted literature review (n=30)

Case studies of four primary care practice sites (n=35 staff, 15 patients)

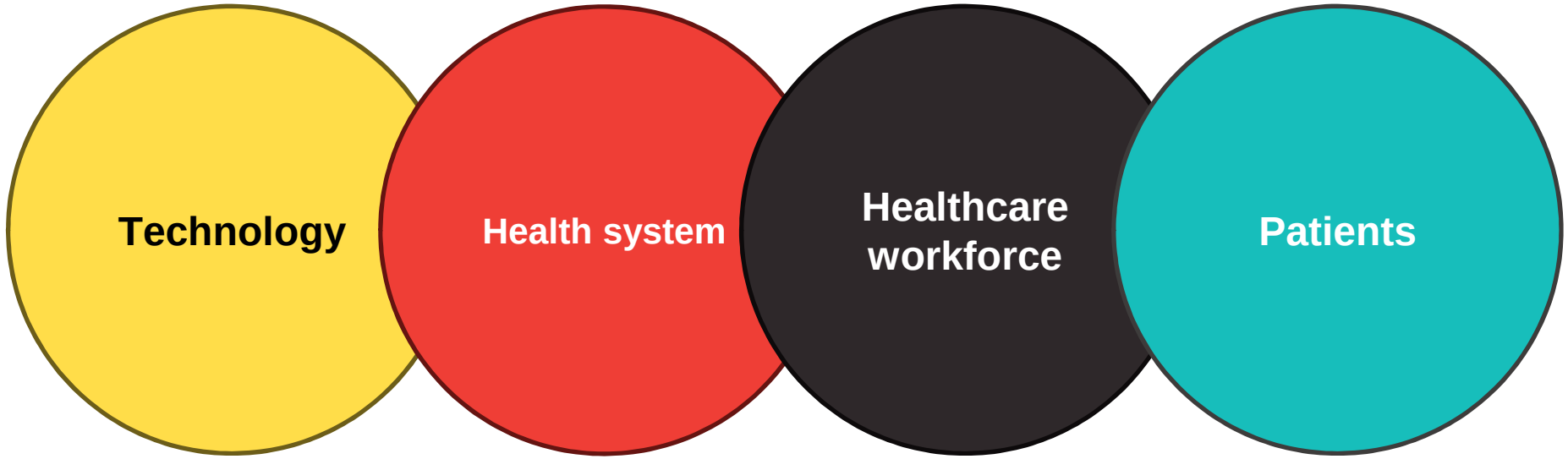


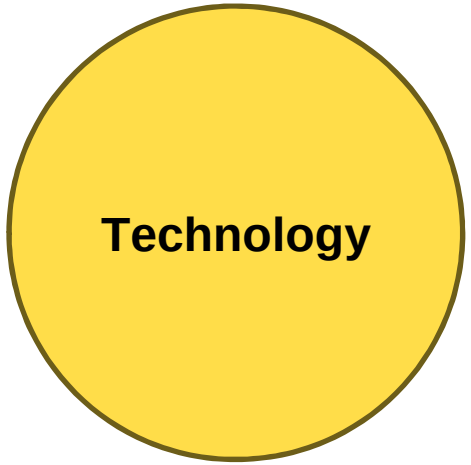
3 cross analysis and synthesis workshops

The technology-enabled remote monitoring pathway



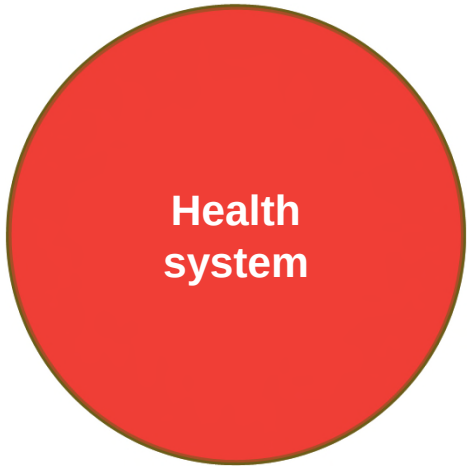
Influences shaping the implementation and use of remote blood pressure monitoring





Technology

- Ease of technology use for NHS staff: intuitiveness, familiarity and interoperability
- Technology supplier relationships
- Regulatory landscape
- Monitor provision to patients



Health System

- Nature of governance
- System-level support
- Relationships across the locality and region
- Buy-in and engagement of GP leadership
- Approaches to mitigating and managing inequalities

Healthcare workforce

- Committed programme and clinical leadership
- Multi-professional, team-based approach including workforce configuration
- Practice culture of trying new things and continuous improvement

Patients

- Patient acceptability of blood pressure remote monitoring
- Useability of data platform
- Rapport/relationship with staff

Enablers of Scale and Spread:

- Managed risk taking
- Long-term funding
- Organisational cultures that support new ways of working and continuous improvement

Implications for policy and practice

	Recommendations
National stakeholders	• Establish guidance on the implementation of TERM BP with a common overarching pathway framework and allowing for local adaptations • Consider how monitor supply can be funded to improve equitable access
Regional, system stakeholders and health and care providers	• Design TERM BP in the context of a wider service for blood pressure monitoring, which will include traditional and tech-enabled services co-existing to meet the needs of diverse patients inclusively. • Plan for adaptability and emergence in service design and implementation, to allow adjustments based on learning. • Consider adaptations for patients who can engage with TERM BP but need or want more reassurance • Nurture communities of practices to inform scale and spread • Establish processes for collecting data on service uptake, patient and health service impacts and associated costs to inform evidence generation

Implications for policy and practice

	Recommendations
Technology suppliers	• Focus on value for money and understand your market. For TERM BP, ‘the’ fanciest’ service isn’t always the optimal, sustainable and scalable solution. • Consider what has to be fixed and where there is scope for adaptation and personalisation to meet context specific needs
Patients	• Ensure that you understand what TERM BP is used for, that you understand the process including how to use equipment and report your information safely and how to escalate if you have any concerns

Thank you!

Any questions, please email:
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