



# Digital-first primary care: a rapid responsive evidence synthesis

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## BACKGROUND

In 'digital-first primary care' models of health care delivery, a patient's first point of contact with a GP or other health professional is through a digital channel rather than a face-to-face consultation. Patients are able to access advice and treatment remotely from their home or workplace via a number of different technologies.

As digital-first services have increased in number and reach, so have questions about their implementation and actual impact on patients, staff and services. NHS England approached the HS&DR evidence synthesis centre to

help identify published evidence of potential relevance to digital-first primary care. An iterative process of scoping the literature was agreed and a review subsequently conducted in two stages.

Stage 1 scoping searches were conducted in July 2018 and a summary of relevant records was produced and presented to NHS England. Following discussions we then moved onto Stage 2 where we conducted a rapid evidence synthesis of a narrower evidence base.

## RESEARCH QUESTIONS AND THEMATIC SYNTHESIS

The research questions identified by NHS England formed the basis of a thematic framework. Where empirical evidence and/or related conclusions were identified in the evidence, they were coded, grouped and synthesised according to the following themes.

1. Benefits of digital modes and models of engagement between patients and primary care:
  - 1.1 Issues relating to General Practitioner (GP) workload and workforce
  - 1.2 Patients subgroups that can(not) benefit
  - 1.3 The effects of different channels for different groups/settings
  - 1.4 Differences between synchronous and asynchronous models
2. Integration of digital-first models within wider existing face to face models
3. Issues relevant to contracting delivering digital-first models (e.g. geography size, population size)

## RESULTS

### Stage 1: Initial scoping work

In total, 2846 records were screened and 92 included in stage 1.

Many reviews of digital alternatives to face-to-face consultations were primarily concerned with "mainstream" technologies such as telephone consultation/triage. Only a minority specifically focused on primary care.

Most reviews narrowly evaluated the introduction or use of a class of technology (e.g. internet video consultation) rather than the integration of such technologies as part of a broader reorganisation or reimagining of services.

Recent publications funded by NHS England, the Nuffield Trust, and the NIHR Health Services and Delivery Research programme were highlighted, alongside recent and ongoing primary studies, and relevant open calls for research proposals.

### Stage 2: Rapid evidence synthesis

Findings from seven reviews and eight primary studies from stage 1 were included in the stage 2 rapid synthesis. Five reviews were produced by UK-based authors. One conceptual review and three primary studies were conducted as part of a single NIHR HS&DR programme of work examining alternatives to face-to-face consultations in UK general practice. Two other primary studies were also conducted in a UK primary care setting. Evidence on a range of technologies was synthesised including telephone consultations, video, email and e-Visits, in addition to digital/online symptom checkers and health advice/triage services.

Themes relating to the benefits of digital modes and models of engagement between patients and primary care included:

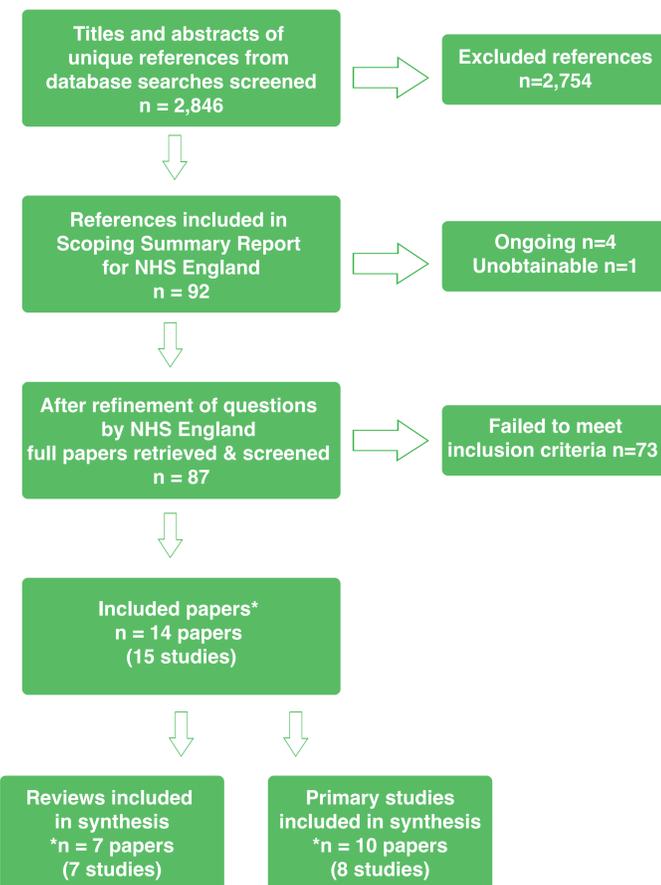
- absence of reliable evidence;
- uptake of alternative consultation models;
- impact on clinical practice and patient health outcomes;
- safety, harms and quality of care outcomes;
- impact on consultation dynamic;
- financial costs and cost-effectiveness;
- diagnostic accuracy;
- information, triage and signposting;
- patient and health professional experience and satisfaction.

Themes relating to integration of digital-first models within wider existing face-to-face models included:

- health professional concerns about alternative consultation models;
- infrastructure and logistics;
- patient-professional relationships;
- professional identity; policies and procedures around the implementation of alternative consultation models;
- unintended consequences.

## IMPLICATIONS FOR RESEARCH

- A broad scope qualitative or mixed-methods review of the literature is unlikely to be of great value in informing future decisions about digital-first primary care. Much of the primary evidence relates to approaches and technologies that have changed since their evaluation, and new technologies continue to emerge.
- A major difficulty for establishing an evidence base relating to digital technologies in general is the rate of innovation and the time needed for evaluation. Future research into the digital delivery of clinical interventions may need to reconcile 'digital' and 'clinical' evaluation paradigms, integrating questions of usability with clinical objectives.
- Evaluation of any new health technology needs to measure outcomes that matter to patients, professionals and the broader health service. Future studies should carefully consider the proximal and distal impacts of new engagement technologies to ensure that appropriate forms of outcome data are collected.



\*One report used multiple methods and contributed both review and primary study data (1 review, 3 primary study papers)

## CONCLUSIONS

Rapid scoping of the literature suggests that there is little high-quality evidence relating to 'digital-first primary care' as defined by NHS England. The broader evidence on alternatives to face-to-face consultation addresses certain policymaker concerns, such as the possible impact of new technologies on workload and workforce, inequalities, local implementation, and integration with existing services. However, while this evidence gives an insight into the views and experiences of health professionals in relation to such concerns, quantitative empirical data are lacking.

As well as obtaining better empirical data on the effects of 'digital primary care', policymakers may want to engage directly with the concerns of health professionals around: practitioner core roles, workload, medico-legal issues, patient access, equity, security, confidentiality and privacy issues. Engagement with professionals might also address the perceived technological barriers to implementation.

Some of the questions of interest to policymakers - such as how the delivery and funding of primary care services might be reconfigured as a consequence of digital consultation methods - cannot be answered by research evidence alone, and may require in-depth engagement with all primary care stakeholders.