

Institution: University of Manchester		
Unit of Assessment: 17 (Business and Management)		
Title of case study: Evaluating and improving extended access to primary care		
Period when the underpinning research was undertaken: 2013 - 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Damian Hodgson	Professor	01/10/2004 - 13/03/2020
William Whittaker	Research Associate MRC Research Fellow Senior Lecturer	01/10/2008 - 31/08/2010 01/09/2010 - 31/07/2016 01/08/2016 – present
Ruth Boaden	Professor, Director of NIHR CLAHRC GM	01/10/2004 - 30/09/2020
Period when the claimed impact occurred: 2014 - 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact		
<p>University of Manchester research has improved primary health care service provision across Greater Manchester (GM) and England. Researchers from the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care (CLAHRC) evaluated two NHS schemes that provided 7-day access to general practice (GP) health services across GM. The results highlighted the benefits and challenges of 7-day access, which in turn led to the NHS in GM investing significantly in extended access provision for 2,800,000 people. The research also influenced the design and implementation of the resulting scheme. Subsequently, the innovative evaluation methodology developed by the Manchester team was adopted at the national level and informed Department of Health strategies, service provision and resource allocation for primary care across England.</p>		
2. Underpinning research		
<p>Policymakers have suggested that primary care facilities have the potential to alleviate growing pressure on NHS hospital services by diverting patients from Accident and Emergency, and other urgent care services, to GP surgeries. However, GP services were limited in their capacity to ease the strain on hospitals because they did not open outside core weekday hours. In October 2013, Prime Minister David Cameron announced a GBP50,000,000 Challenge Fund to improve access to general practice (now called the GP Access Fund (GPAF)). In the same year, NHS England GM announced a GBP4,100,000 investment to improve GP access in Greater Manchester. University of Manchester researchers, funded through CLAHRC, partnered with NHS England GM (renamed in 2016 Greater Manchester Health and Social Care Partnership (GMHSCP) and referred to here as 'the NHS in GM') to evaluate this programme. The researchers evaluated the potential of 7-day GP access to provide a range of benefits to patients and the NHS, including cost reductions, higher patient satisfaction and reduced A&E demand. Implementing 7-day access to general practice was a priority in GM following the devolved health and social care funding settlement in 2016, and coproduction between CLAHRC researchers and the NHS in GM resulted in timely evidence for implementation.</p> <p>Prior to the work of the CLAHRC team, researchers and policy makers employed before-and-after assessment methodologies without effective comparators. The CLAHRC research team argued this approach did not provide accurate data for decision-makers in the NHS because they had the potential to severely over- or under-estimate the effects of the service [1]. Professor Ruth Boaden, Professor Damian Hodgson and Dr William Whittaker devised a novel research methodology which combined a quantitative Difference in Difference (DiD) approach (rather than a before-and-after approach) with qualitative analyses [1], [2]. Combining this quantitative method with the addition of qualitative data enabled the research team to generate evidence based not only on health outcomes but also on organisational</p>		

processes and activities, which had not previously been included in the analysis of 7-day access. The significance of this innovative methodology was that it enabled a more robust assessment of the benefits and challenges of 7-day access than the simple before-after assessment without qualitative data that was commonly used to evaluate healthcare provision in the NHS.

The CLAHRC team subsequently received funding from the NHS in GM and developed two projects that used its new methodology to evaluate two schemes designed by the NHS in GM to deliver evening and weekend GP appointments.

An initial project, known as the Primary Care Demonstrator Evaluation (October 2013 - April 2015), assessed the pilot scheme for 7-day access in GM. The key findings were as follows [3]:

- Extended access reduced A&E activity leading to a 26.6% reduction in cost
- GP Practices with 7-day appointments exhibited a 26.4% relative reduction in patient-initiated referrals to A&E with minor problems (10,933 fewer visits), in comparison to practices without additional evening and weekend appointments
- The cost of fewer attendances at A&E amounted to GBP767,000 over a 12-month period. However, this decrease did not release cash that could be reinvested elsewhere because there was no concomitant reduction in staff or facilities given that demand for A&E services from other sources continued to increase.
- No significant positive or negative impact was observed on patient satisfaction.

The initial research project provided robust evidence that whilst additional primary care appointments outside of working hours can reduce attendance at A&E, they might not result in cost savings to the health service as a whole unless staffing is reduced as a result. Based on these results, the CLAHRC team recommended that 7-day access interventions would need to see significant health gains and/or need to address issues of spare capacity in uptake in order to justify the financial investment [3]. The research also identified a number of aspects of system design in primary care that needed to be taken into consideration when delivering extended hours. Specifically, the team identified and recommended six key enablers for successful extended access: workforce and organisational development, information technology, information governance, engagement and communication, inter-organisational collaboration, and supporting infrastructure. These aspects of system design emerged as important but could not all be addressed because extensive system redesign was impractical in a pilot scheme. Accordingly, the team highlighted the need for further research to examine how 7-day access could be scaled-up across the whole of GM.

Based on insights gained from the first research project, the NHS in GM agreed to partner with the CLAHRC team to assess the subsequent roll-out of the 7-day Access scheme to all 2,800,000 million people in GM during 2016 [6]. This second research project identified barriers and enablers when scaling-up the scheme beyond self-selected pilot sites to cover the whole of GM, thus addressing the limitations of piloting identified in the first report [3], [4]. The key findings of this second project were [5]:

- A total of 51,806 appointments were made available in 2016, of which 37,560 were booked and 33,266 were attended by patients
- Patients using the extended service tended to be younger and a greater proportion were women, compared to patients attending during core hours [6]
- Provision and uptake of extended access varied greatly between areas within GM but increased during the period of analysis (2016), including on Sundays [6]
- Provision and uptake were influenced significantly by variations in service design and implementation, particularly variations in the process of referral and the location of the extended access hubs across the different areas of GM [6].

As explained below, this body of work had a significant influence on resource allocation, evidence-based service design, and the strategy and implementation plan for the rollout of 7-day access, which in turn improved service provision for patients across Greater Manchester and the rest of England.

3. References to the research

- [1] **Whittaker, W**, Anselmi, L, Kristensen, SR, Lau, YS, Bailey, S, Bower, P, Checkland, K, Elvey, R, Rothwell, K, Stokes, J and **Hodgson, DE** (2016) Associations between Extending Access to Primary Care and Emergency Department Visits: A Difference-In-Differences Analysis. *PLoS Med* 13(9): e1002113.
<https://doi.org/10.1371/journal.pmed.1002113>
- [2] Elvey, R, Bailey, S, Checkland, K, McBride, A, Parkin, S, Rothwell, K and **Hodgson, DE** (2018) Implementing new care models: learning from the Greater Manchester demonstrator pilot experience. *BMC Family Practice* 19:89,
<https://doi.org/10.1186/s12875-018-0773-y>
- [3] Anselmi, L., Bailey, S., Bower, P., Checkland, K., Elvey, R., **Hodgson, D., Whittaker, W.** (2015). NHS Greater Manchester Primary Care Demonstrator Evaluation. Manchester, UK: Collaboration for Leadership in Applied Health and Care Research, Greater Manchester. <https://www.arc-gm.nihr.ac.uk/media/wpweb/PCDE-final-report-full-final.pdf>
- [4] Bailey, S, **Hodgson, DE**, Checkland, K, Pierides, D, Elvey, R, McBride, A, and Parkin, S. (2017) The policy work of piloting: mobilising and managing conflict and ambiguity in the English NHS. *Social Science and Medicine* 17: 210-217,
<https://doi.org/10.1016/j.socscimed.2017.02.002>
- [5] NIHR CLAHRC Greater Manchester (2018), GM Primary Care 7-Day Access Evaluation: Final Report, <https://www.arc-gm.nihr.ac.uk/media/Resources/OHC/GM-Primary-Care-7-day-access-report-evaluation.pdf>
- [6] **Whittaker W**, Anselmi L, Nelson P, et al, Investigation of the demand for a 7-day (extended access) primary care service: an observational study from pilot schemes in England, *BMJ Open* 2019;9:e028138. doi: [10.1136/bmjopen-2018-028138](https://doi.org/10.1136/bmjopen-2018-028138)

4. Details of the impact

Impact on Resource Allocation

The impact of the research has been on government resource allocation for primary care, both within GM and at the national level.

The CLAHRC team's first study [3], evaluating the GM pilot programme, provided key evidence to the NHS in GM and had an important influence on the commissioning of 7-day access schemes across Greater Manchester, which resulted in significant resource allocation from local and national health funds. The Head of Primary Care Transformation at the GMHSCP stated that the CLAHRC report "*provided vital evidence that was at the forefront of informing our decision to commit to rolling out extended access to the 2.8 million people living in Greater Manchester under our Primary Care Reform Programme*" [A]. The rollout commenced in 2017 and, informed by CLARHC research, was funded in Bury, Manchester and Wigan through a successful bidding process to the national GP Access Fund (GPAF) and the rest of the region by a significant investment of GBP41,000,000 in the Primary Care Reform programme across Greater Manchester [B] for areas not in receipt of GPAF funding. The GMHSCP said that CLAHRC research "*informed the design of the successful Greater Manchester bids for the national GP Access Fund worth a total of GBP10,700,000*" [A]. Overall, the evidence provided in the CLAHRC report informed resource allocation in GM totalling in excess of GBP50,000,000.

The impact of CLAHRC's evaluation research has also extended beyond GM. Based on the CLAHRC report [3], in 2015, the Manchester research team was approached by the successful bidders (two consultancies, Mott MacDonald and SQW) to be the evaluation provider for the NHS England GPAF, Phases 1 and 2. Initially, the CLAHRC team was asked to provide methodological advice on the phase 1 evaluation of the GPAF initiative. Subsequently, the team embarked on a formal partnership for the evaluation of the national

phase 2 GPAF scheme, which covered approximately 10,600,000 patients in over 1,400 GP practices through 37 different schemes [C]. Whittaker and Hodgson provided advice on metrics to capture appointment and cost data to inform cost-effectiveness calculations. Whittaker also provided advice on the methodology for the quantitative analysis of A&E impacts of the GPAF schemes.

NHS England provided support to continue extended access in the areas it had funded through GPAF until March 2018. From April 2018 Clinical Commissioning Groups (CCGs) were required to commission and fund additional capacity in general practice to ensure improved access – including sufficient routine appointments at evenings and weekends to meet locally determined demand, thereby meeting requirements specified at the national level [D] [E], as detailed in Operational Planning Guidance [F]. In terms of resource allocation, commissioners were provided with funding of GBP6 per head of population (weighted) for each patient, to cover the full cost of the extended access service, on a recurrent basis, up to and including the financial year 2019/20 [F]. This figure was rounded up by NHS England from the cost per patient of GBP5.60 calculated by the CLAHRC team in their analysis for the first project [G].

Impacts on the Design of Strategies and Implementation Plans

In addition to its influence on the allocation of public funds, the first CLAHRC report [4] also shaped the design and implementation of the 7-day access scheme across Greater Manchester. As noted above, the report recommended six ‘enablers’ for the successful implementation of 7-day access, supported by an implementation checklist, all of which were referenced as critical enablers in the GM Primary Care Strategy [A]. The Head of Primary Care Transformation at the GMHSCP, stated that *“the plans and service specifications [of the rollout] were also heavily shaped by the evidence provided by the [CLAHRC] evaluation. This was supported by an implementation checklist that collated the learning from the evaluation concerning the enablers and barriers to implementation, a resource we now use to inform implementation of an array of new innovations or services in primary care”* [A].

One particular enabler suggested by the CLAHRC report – a sufficient primary care workforce – has resulted in further commitments to innovative service design and organisational change by the NHS in GM. The importance of workforce highlighted in the CLAHRC research led to the creation of a Primary Care Workforce Strategy Group in December 2017. The CLAHRC team provided the evidence that influenced the workforce policies and strategic plans of the NHS in GM, with follow on CLAHRC work exploring the workforce challenges facing General Practices across GM being referenced in *The Greater Manchester Primary Care Workforce Strategy 2019 – 2024* [H], which was devised to address these challenges.

The CLAHRC research also influenced extended access to primary care nationally. Three of the seven core requirements [E] published in the national planning guidance draw on the results of both phases of the CLAHRC’s GPAF evaluation [G]:

- Timing of appointments: specified to meet local population needs. CLAHRC and national evaluations showed that demand was not uniform across the weekend [6]
- Capacity: Phase 1 evaluation showed that pilots were providing an additional 30 minutes of consultation time per 1,000 patients [G] and this figure has been directly used in the planning guidance [F]
- Measurement: the challenges of identifying and measuring appointment activity were noted in the CLAHRC reports [3, 5] and the national evaluations. Consequently, a new national tool has been commissioned to automatically measure appointment activity. In the interim, data is being produced from existing systems.

In addition, findings from the first report [3] and paper [1] were included in an evidence review by the National Institute of Health and Care Excellence (NICE) which was part of national guidance on emergency care in 2018 [I].

Impacts on Service Provision

CLAHRC's research into the rollout of the 7-day access scheme helped to improve access to primary care and enhance service provision. The Head of Primary Care Transformation at GMHSCP states that CLAHRC's evidence was "vital" to the rollout of the scheme, which resulted "in an additional 1,500 hours per week of GP and practice nurse time being available to patients across the region" [A]. These additional hours equated to 51,806 extra out-of-hours appointments in 2016, with a significant increase in uptake by young and female patients, and a steady increase in uptake for weekend appointments [6]. By 2019 extended access was available to all patients across GM [J].

By providing robust evidence for key decision-makers and informing the design of successful implementation plans, the CLAHRC research helped to increase the volume, accessibility and convenience of primary care service provision for 2.8 million patients across the Greater Manchester region.

5. Sources to corroborate the impact

- [A] Testimonial from the Head of Primary Care Transformation at GMCA, April 2018
- [B] Greater Manchester Primary Care Strategy 2016-2021 <http://www.gmhsc.org.uk/wp-content/uploads/2018/04/GMHSC-Partnership-Primary-Care-Strategy.pdf>
- [C] NHS England, Improving access to general practice, GP Access Fund: Wave 2. <https://www.england.nhs.uk/gp/gp/vf/redesign/improving-access/gp-access-fund/wave-two/>
- [D] Improving Access to General Practice, NHS England Gateway Reference 07286, October 2017, <https://www.england.nhs.uk/wp-content/uploads/2017/11/improving-access-general-practice-national-slidedeck.pdf>
- [E] General Practice Forward View, April 2016, Gateway Reference 05116, <https://www.england.nhs.uk/wp-content/uploads/2016/04/gp/vf.pdf>
- [F] NHS Operational Planning and Contracting Guidance 2017-2019, NHS England and NHS Improvement, September 2016, Gateway Reference 05829, <https://www.england.nhs.uk/wp-content/uploads/2016/09/NHS-operational-planning-guidance-201617-201819.pdf>
- [G] Prime Minister's Challenge Fund: Improving Access to General Practice, Second Evaluation Report to September 2015, SQW/Mott MacDonald, Gateway Reference 05041, <https://www.england.nhs.uk/wp-content/uploads/2016/10/gp-access-fund-nat-eval-wave1-sml.pdf>
- [H] The Greater Manchester Primary Care Workforce Strategy 2019 – 2024 <https://www.gmhsc.org.uk/wp-content/uploads/2019/11/07d-Appendix-4-to-PC-Strategy-GM-Primary-Care-Workforce-Strategy-2019-v21-HCB-31.01.2020-FIN.pdf>
- [I] National Institute for Health and Care Excellence (NICE), Guideline 94, Emergency and acute medical care for over-16s: service delivery and organisation (<https://www.nice.org.uk/guidance/ng94>) Evidence Review and recommendations for research: Chapter 5 GP Extended Hours https://www.nice.org.uk/guidance/ng94/evidence/05_gp-extended-hours-pdf-4788818466
- [J] The Greater Manchester Primary Care Strategy 2019-2024 <https://www.gmhsc.org.uk/wp-content/uploads/2019/11/07b-Appendix-2-to-PC-Strategy-GM-Primary-Care-Strategy-v20-HCB-31.01.2020-FINAL-v1.0.pdf>, p.5