NIHR | Collaboration for Leadership in Applied Health Research and Care Greater Manchester

Salford Wide Extended Access Pilot (SWEAP) evaluation

Final Report

Working in collaboration with:

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Executive Summary

This report details the work completed by NIHR CLAHRC Greater Manchester in evaluating the Salford-Wide Extended Access Pilot (SWEAP). The evaluation comprised both quantitative and qualitative methods, used to assess whether the pilot was meeting its aims and desired outcomes.

Background

Salford Primary Care Together (SPCT) was commissioned by Salford CCG to provide statutory extended access services for general practice, as per national policy. Appointments were provided on weekday evenings and weekend daytimes, delivered from neighbourhood hub buildings, one for each of the five neighbourhoods of Salford (Broughton, Eccles, Pendleton, Swinton and Walkden). The service started operating in August 2017 with the opening of the Swinton neighbourhood hub, with the last hubs opening in March 2018 in Pendleton and Walkden. From April 2018 patients were able to book SWEAP appointments at any of the five hubs, rather than their own neighbourhood hub only.

SWEAP shifts are staffed by at least one clinician (GP, practice nurse, or healthcare assistant (HCA)) and a receptionist. Clinicians were a mixture of Salford-based and out-of-area locums. Sessions are made available to patients when a clinician books onto the system to take the shift. Patients book onto the service via their normal core hours practice, where SWEAP appointments should be offered as part of routine services depending on service availability.

Qualitative evaluation

- The CLAHRC GM study team completed semi-structured interviews with 18 participants working within the locality, to discuss the development and delivery of the SWEAP service to date. Discussion centred around five key themes:

1) **Information technology**: SWEAP appointments are supported by Vision Anywhere software. Vision Anywhere has been inconsistent, with several SWEAP sessions being cancelled due to the software not working and clinicians being unable to access patient notes. SWEAP clinicians cannot complete referrals themselves (outside of cancer referrals), and instead have to return instructions to core hours practices to complete this. A secure email workaround is in place to address the limitations of Vision Anywhere in reporting referrals back to practices. The central booking system was considered appropriate.

2) **Information governance**: The sharing of notes between SWEAP and EMIS practices was identified as especially problematic for several reasons. Sharing of notes between Vision practices and SWEAP allowed for full notes including case histories and letters to be shared. Practices using EMIS software for their record management were able to supply less detailed patient notes, which at times was problematic for SWEAP clinicians. The workaround for sharing notes between practices and SWEAP led to some data breaches, however these issues have been resolved. The software is also limited in that services cannot currently be audited. As part of GDPR, patients must consent for their records to be shared with the SWEAP service.
3) **Workforce**: Staffing was identified as a key challenge to the SWEAP service, particularly at the beginning. A lack of available clinicians was a leading reason for SWEAP sessions not proceeding. To address some barriers to participating in SWEAP, additional medical indemnity costs for GPs were met by the providers, evening sessions were increased in length to provide a greater financial incentive, and an enhanced rate of remuneration for Salford-based clinicians was offered. Since November 2018, SPCT have completed a recruitment drive to get more clinicians to work on the service, with the number of available appointments increasing as a result.
4) **Communications and engagement**: The providers (SPCT) actively engage with practices as part of service development through neighbourhood meetings, routine email communication and targeted engagement. The introduction of 50% on-the-day SWEAP appointments on Mondays from April 2019 was the result of such communication. There was variation in how the SWEAP service was communicated to patients. Some practices offered SWEAP appointments routinely, some subject to waiting times in core hours, some do not appear to offer appointments at all. This variation was the result of some practices feeling able to manage waiting lists with existing DES arrangements; perceptions of the benefit of the service on patient care and satisfaction; and negative experience(s) with the service.
5) **Resources and infrastructure**: There was a general perception that the resources were currently in place to deliver the service but would be dependent on future funding arrangements (such as central government contribution and/or how the service is delivered when commissioned via primary care networks). The hub system was generally found to be appropriate, though the use of Gateway buildings did have limitations in relation to opening hours, access to buildings and security arrangements.

- Most clinicians interviewed felt the service was useful in reducing waiting times and expanding patient choice. The impacts on core hours was felt to be minimal, as were impacts on other areas of the system given the pre-bookable nature of many SWEAP appointments.

Quantitative appointment analysis

- Data were received for 19,541 SWEAP appointments over the period 14th August 2017 to 30th June 2019.
- 67.61% of appointments were booked and attended. 20.85% were booked and not attended (DNA), and 6.47% were not booked at all. 5.07% were booked and cancelled.
- Over the period 2017/18 to 2018/19 there was an increase in the proportion of appointments booked and attended (64.58% to 68.46%) and DNA (17.79% and 21.95%). These rates remained fairly stable in 2019/20. There was evidence of a reduction in cancelled appointments which may reflect improvements in workforce and IT.
- There was variation in appointment provision across neighbourhoods. While Eccles and Swinton hubs provided the greatest volume of appointments, Walkden and Broughton hubs had the greater volume of appointments per 1,000 patients. The Pendleton hub provided the fewest appointments in volume and volume per 1,000 patients.
- The proportion of appointments booked and attended varied by day of week, with weekdays having greater rates than weekends (Monday to Friday ranging 73.62%-75.89%, Saturday 62.55%, Sunday 62.75%). The proportion of appointments that were not booked was greatest on Saturday (10.47%) and Sunday (8.48%) compared to weekdays (0.83%-3.05%).
- Provision of SWEAP appointments varied by day of week and neighbourhood though the majority of appointments were provided on weekends.
- Provision fluctuated over the pilot period August 2017 to June 2019 with a dip in summer 2018. Throughout this period attendance rates remained fairly stable.
- There was little evidence of variations in attendance rates by time of appointment for weekday appointments. For weekend appointments, attendance rates were generally lower the later the appointment.
- Patients booking and attending SWEAP appointments tended to be female (56.96%) and of working age (80.35% aged 16-64: 54.20% aged 16-45 and 26.15% aged 46-64).
- In most neighbourhoods one or two practices dominate appointment bookings.
- Overall, 16,755 appointments were allocated to GPs, representing 85.74% of all appointments. The number of HCA appointments has increased in 2019, with around 300 per month now being provided, compared to consistently fewer than 50 in the period up to September 2018.
- The intended cost per appointment was £27.40, which was exceeded for each financial year. In 2017/18, the cost per appointment was £74.91, rising to £123.65 in 2018/19. Data for the first quarter of 2019/20 suggests SWEAP is

running at its lowest cost per appointment to date at £61.24 – which is still more than twice the anticipated amount.

Patient survey data analysis

- We report here responses from a patient satisfaction survey designed and collected by SPCT with patients attending SWEAP appointments.
- Respondents varied compared to those identified in the SWEAP appointment data with regards to gender (survey respondents had a greater proportion female), and neighbourhood hub (with the survey over-representing appointments in Swinton and Walkden), but were similar in age (80.35% aged 16-64 in activity data, 84.22% survey).
- 56% of survey respondents cited attending a SWEAP appointment due to a lack of availability of core hour appointments and 19% because the SWEAP appointment was available before the next core hour appointment. This suggests demand may be more focussed around capacity increase rather than speed of getting an appointment and specific inconvenience of core hour appointments.
- 99% of survey respondents said they would use the SWEAP service again. 98% said they were extremely likely or likely to recommend SWEAP to family and friends.
- Had they not used the service, 63% would have waited for an appointment in core hours, 17% would have contacted NHS 111, 14% attended A&E, 9% a pharmacy, and 5% consulted the internet.

Clinical audit assessment of a sample of SWEAP appointments

- A clinical audit comprised a review of case notes from a sample of 211 appointments at SWEAP hubs during the period June to November 2018. Appointments were selected to ensure coverage of all 5 hubs and to cover a variety of appointments based on practice proximity and usage of the service.
- Based on the results of this case note review, it was felt that the SWEAP service is providing a safe, effective service to the majority of patients that use it. Key findings include:
    - 94% of the clinical notes sampled were either satisfactory or reasonable with some omissions
    - 74% of appointments were for minor problems.
    - In most cases the SWEAP service met the needs of the patients attending:

    - 76% of appointments sampled were not followed by re-consultation in in-hours GP practice for the same issue in the 2 months following the SWEAP appointment
    - For the 24% of appointments with re-consultation it was felt that the SWEAP appointment added value to care in most cases (52/69), but generated duplication of work in the remaining 17 (caused due to issues with the set-up of SWEAP and deemed avoidable)
    - 48% of SWEAP appointments resulted in additional follow-up work for the patients' in-hours registered practice such as ordering imaging results or sending referral letters. It was not possible to quantify whether this additional follow-up work would have occurred had the patient been seen by their own GP rather than a SWEAP clinician.
- While efforts were taken to review a variety of appointments based on practice proximity to hubs and practice usage of appointments, the findings of the audit may not be generalisable across other SWEAP appointments, for different calendar periods, or for the service over time.

SWEAP impact assessment

- Analyses of correlations between SWEAP provision and urgent care activity related to NHS 111, out-of-hours and Accident & Emergency contacts were completed, to assess the impact of SWEAP on other services.
- Comparisons of average contacts per month before and after SWEAP enactment were conducted, for Salford CCG, each of the neighbourhoods and by dosage (based on volume of appointments booked and attended by a practice).
- The analyses of impacts on service use found reductions in minor A&E attendances and cost and self-referral minor A&E attendance and cost in the SWEAP period. There was little evidence of reductions in self-referrals or total A&E attendance but significant increases in cost of these attendances. These suggest the changes are being driven by reductions in minor A&E attendance.
- Reductions in average monthly NHS 111 contacts in NHS Salford CCG were found in the SWEAP period; these were concentrated among Broughton, Eccles, and Pendleton (largest drop). Similar effects were found for contacts with a non-urgent care recommendation, Walkden also experienced a reduction in non-urgent care contacts. Swinton appears to have experienced no significant change in either measure of NHS 111 contacts.
- Reductions in average monthly OOH contacts per 1,000 in NHS Salford CCG were also found, these were concentrated among Eccles and Pendleton (largest drop) neighbourhoods with no significant change observed in Broughton, Swinton, or Walkden.
- For all A&E attendance and NHS 111 measures, the estimated change in high dose practices (those with more than 100 appointments booked per 1,000

registered patients) is smaller than that seen in the low dose practices. Given the dosage grouping reflects a measure of SWEAP activity, it seems plausible to expect higher impacts for high dose practices. That we find the opposite casts doubt over whether the analyses is really identifying the effects of SWEAP or other factors. For OOH, on the other hand, there is some evidence that high dose practices had a reduction in OOH contacts and no change for low dose practices.

- The findings here are also unreflective of provision seen in the appointment analysis. There, Pendleton had the smallest amount of attendance per 1,000 residents yet here we see significant reductions in all impact measures for this neighbourhood.

GP Patient Survey analysis

- The timing of the GPPS survey means few patients completing the survey would have had exposure to SWEAP appointments at that time
- Changes to the GPPS survey in 2018 mean longitudinal assessment of the impacts of SWEAP is not feasible
- The new questionnaire has several measures that may be useful to monitor in future that relate to:
    - Awareness of appointment times and satisfaction with these;
    - Making an appointment and whether appointments were made in another general practice or declined due to being at another general practice
    - Experiences of NHS services when the patient's general practice is closed and identification of whether an appointment was at another practice and thoughts on timing, confidence and overall experience of this appointment

Recommendations

1. For a more comprehensive delivery of the service, the ability to obtain full patient records for EMIS practices would prove beneficial. So too would the ability to make onward referrals.
2. Patient awareness is driven by practice engagement, running the risk that the service is a poor reflection of patient demand for the service and resulting in a potential for inequity in provision. The service could be advertised more broadly.
3. The centralised booking system works well and extending patient access through offering online appointment booking could be considered.

4. Reliability of service provision should be improved. This could be achieved through better workforce planning and management – to avoid staff shortages and better co-ordinated IT support – to avoid system failures.
5. To meet the challenge of providing a service that requires IT systems that run in different organisations, co-ordinated IT support is needed, including designated individuals within organisations who also co-ordinate with one another.
6. The potential impact of different groups within the primary care workforce, such as GPs already working in local practices, or locums, providing the sessions, should be evaluated, including in terms of the impact on GP workload and wellbeing as well as patient care and experience.
7. Greater clarity of communication about the availability of appointments is needed, in particular reiteration or reassurance to practice staff about booking appointments at any hub. It is important that reception staff in particular are informed about this as they have the role of booking appointments.
8. While the activity data to date suggests there has been little excess capacity in the service, this may not necessarily mean service expansions will see similar rates of bookings. Increasing provision needs to be monitored to ensure the service is running as efficiently as possible and reflects demand.
9. Where excess capacity is observed the service may consider reducing volume of appointments, particularly later in the day on weekends where the proportion of appointments booked was found to be lower.
10. There was some evidence that the volume of available appointments on a Friday was lower than other weekdays. Future work could investigate whether this is a workforce staffing issue; if unresolvable, the service may wish to increase volume on other days to match this shortfall.
11. Patient bookings being via the patient's home practice and the availability of appointments being dependent on workforce and IT systems mean the activity observed in the evaluation may be more reflective of supply capacity rather than demand for the system. Monitoring of the service as workforce and IT systems develop would help identify appropriate levels of provision.
12. The service experiences a high rate of DNAs. Reasons for this should be explored and measures (for example, SMS reminder services) to improve rates should be considered.
13. It would be beneficial to engage with practices to understand the rationale for low/medium or high use of the service. If location of the hub is a dominating factor then equity of access would be a point of discussion for future considerations of location, which could be informed by the geographic locations of practices with little/no use of the service.
14. Enabling patients to book into the service directly would help eliminate variations in practice buy-in. A recent study found the introduction of a call

centre improved the booking process and resulted in 80-90% of appointments being self-referrals.[1]

15. The recording of patient demographics including ethnicity and deprivation, would enable assessments of the types of patients using the service and types of the service (e.g. by day, discipline) to evaluate the equity of provision and uptake. This information may help future commissioning of the service at neighbourhood levels.
16. 2018/19 and the data for 2019/20 so far saw costs per appointment significantly greater than that commissioned. An understanding of scale of provision, uptake by time/location and unit cost per appointment provided would make it possible to identify potential efficiency saving in the service. Should the cost be driven by greater workforce costs then greater skill-mix in provision should be considered.
17. Enabling Advanced Nurse Practitioners to prescribe is one action that could address workforce shortages. This would involve considering possible workarounds for the use of spurious codes for prescribing through SWEAP.
18. Limited variation in appointment time, discipline, and booking mode across neighbourhoods mean comparisons of alternative set ups of the service was not possible. As the provision of appointments by Advanced Nurse Practitioners, Healthcare Assistants and Practice Nurses increase then a clearer understanding of the most effective skill-mix would be possible to inform future commissioning.
19. The survey of SWEAP patients and clinical audit suggest there are likely to be impacts on core hours activity, reducing pressure (survey) whilst increasing workload (clinical audit). It is currently unknown the implications of the SWEAP service on access to core hour appointments. The CCG could conduct a targeted review of impact in core hours activity in a limited number of practices.
20. There was some evidence that set-up problems such as the lack of full patient records (e.g., relevant letters attached to patient files) and barriers to conduct some onward referrals resulted in duplication and increased core hour activity. Providing access to complete records for EMIS patients and efforts to support the onward referral process may alleviate some of the implications of the SWEAP service on core hours.
21. Comparing changes to those observed in similar areas without an extended access service would enable trends and nationwide initiatives to be removed from any estimated effect on other areas of service.[2] A more appropriate approach to estimating the impacts of the SWEAP service would be available with the release of Hospital Episode Statistics (for secondary care measures) in winter or spring of 2019/20.

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[1] Nuffield Trust, Improving access out of hours. Evaluation of extended-hours primary care access hubs. [cited April 2019]. Available from: https://www.nuffieldtrust.org.uk/files/2019-05/bhr3-report-b1881-rgb-3.pdf

[2] E.g. Whittaker W, Anselmi L, Kristensen S, et al. Associations between extending access to primary care and emergency department visits: a difference-in-differences analysis. *PLoS Med* 2016;13(9):e1002113

22. Given the changes to the GP Patient Survey in 2018 we sought to identify how useful the survey may be for future evaluations of the SWEAP service. The new questionnaire has several measures that may be useful to monitor in future that relate to:
    a. Awareness of appointment times and satisfaction with these
    b. Making an appointment and whether appointments were made in another general practice or declined due to being at another general practice
    c. Experiences of NHS services when the patient's general practice is closed and identification of whether an appointment was at another practice and thoughts on timing, confidence and overall experience of this appointment

1. Background and aims of the report

1.1. Policy context

The National Health Service (NHS) in England aims to extend access to primary care services in the evening and at weekends by 2020/2021 as part of their strategy for delivering primary care (NHS England, 2016). The strategy seeks to enable local commissioners of health care to redesign primary care services and commission extra capacity so that by 2020 *'everyone has access to GP services, including sufficient routine appointments at evenings and weekends to meet locally determined demand, alongside effective access to out-of-hours (OoH) and urgent care services*'.[3]

Extended access has been piloted nationally by NHS England since 2013 through the Prime Minister's Challenge Fund and its successor, the GP Access Fund. Wave 1 covered 7.5m people in 2014, rising to 18m (a third of the population of England) by 2015 in Wave 2. In parallel, NHS England Greater Manchester (NHSEGM), now part of the Greater Manchester Health and Social Care Partnership (GMHSCP), have also piloted extended access appointments with an initial wave in 2014[4], followed by a roll-out throughout Greater Manchester from 2016 in line with the region's devolution and health and social care strategy.[5] The Healthier Together Promise agreed that "…by the end of 2015, everyone living in Greater Manchester who needs medical help, will have same day access to primary care services, supported by diagnostic tests, seven days a week". The Association of Governing Groups (AGG) have an agreed definition of what the 7-day access service should entail. The minimum standard of provision should be:

- 7-day access to primary care services via a networked model in localities/neighbourhoods
- 4-6 hours at weekends
- 1.5 hours per day (6:30-8pm weekday evenings)

The AGG standards are in line with the national standards for extended access delivery (NHS England and NHS Improvement, 2016), which stipulate that appointments should comprise:

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[3] NHS England. General Practice Forward View. [cited 2016 April]. Available from: https://www.england.nhs.uk/wp-content/uploads/2016/04/gpfv.pdf

[4] NIHR CLAHRC Greater Manchester. NHS Greater Manchester Primary Care Demonstrators Evaluation. [cited 2015 June]. Available from: https://www.research.manchester.ac.uk/portal/files/32297227/FULL_TEXT.PDF

[5] Greater Manchester Combined Authority. Delivering Integrated Care across Greater Manchester: The Primary Care Contribution. Our Primary Care Strategy 2016-2021. [cited 2016]. Available from: http://www.gmhsc.org.uk/assets/GMHSC-Partnership-Primary-Care-Strategy.pdf
NIHR CLAHRC Greater Manchester. GM Primary Care 7-Day Access Evaluation. [cited 2017 March]. Available from: https://www.clahrc-gm.nihr.ac.uk/media/Resources/OHC/GM-Primary-Care-7-day-access-report-evaluation.pdf

- A minimum of 30 minutes consultation per 1,000
- Include pre-bookable and same-day appointments
- Cover 1.5 hours after 6:30pm on weekdays and
- Should be on both Saturday and Sunday in line with patient needs.

1.2. NHS Salford CCG's approach to extended access: SWEAP

NHS Salford CCG had not activated their extended access approach (Salford Wide Extended Access Pilots (SWEAP)) in time to be included in the Greater Manchester evaluation. The business case for SWEAP was approved 11th July 2016, with the procurement process commencing 28th October 2016 and completed and awarded to Salford Primary Care Together (SPCT) on 14th February 2017. The aim of the SWEAP service was to establish, for all five Salford Neighbourhoods, access to general medical services on weekday evenings and at the weekend. As stated in the service specification "the vision for NHS Salford CCG is to provide a high quality primary care service that addresses the needs of patients and is sustainable. Extended Access would provide a complimentary but seamless service to what is currently seen as "in-hours" primary care."

1.2.1. Planned extended access provision

The SWEAP scheme covers five neighbourhoods in NHS Salford CCG: Swinton, Eccles & Irlam, Little Hulton & Walkden, Ordsall & Claremont, and Broughton. A common hub specification was commissioned (one located in each neighbourhood). Types of extended service available differ over week days. During a weekday the hubs were to be open for 1.5 hours a day (18:30-20:00) and staffed by a receptionist with appointments delivered by GPs and practice nurses. Over the weekend 6 hours (plus 30 minutes for administration for each session) were to be provided with appointments delivered by GPs, Advanced Nurse Practioners (ANPs), practice nurses, with Saturdays also providing healthcare assistant (HCA) provision and to include phlebotomy services. An example of how the service may be delivered is provided in Table 1. Appointments were to be mainly pre-bookable up to four weeks in advance. Initially, access to neighbourhood hubs would be for patients registered with a practice within the neighbourhood. From April 2018 all patients registered with a practice in NHS Salford CCG would be able to access any hub.

Table 1 Example of commissioned hub hours and appointments provided by discipline over the week

	Weekday (6:30pm-8:00pm)	Saturday (10:00am-1:30pm)	Sunday (10:00am-12:30pm)	Total**
GP clinics*	1.5 hrs 6 appts	3.5 hrs 14 appts	2.5 hrs 10 appts	13.5 hrs 54 appts
Practice Nurse	2 hrs 8 appts	4 hrs 16 appts	3 hrs 12 appts	17 hrs 68 appts
ANP clinics		4 hrs 16 appts	3 hrs 12 appts	7 hrs 28 appts
Healthcare Assistant		4 hrs 16 appts		4 hrs 16 appts
Phlebotomy		4 hrs 16 appts		4 hrs 16 appts
Receptionist	2 hrs	4 hrs	3 hrs	17 hrs

**+0.5 admin per day.*
NHS Salford CCG give 5 appointments per hour for ANP, HCA, phlebotomy services
***Total NHS Salford CCG weekly extended access appointments equal 910 (182 per hub), giving an annual commissioned capacity of 47,320 extended access appointments (9,464 per hub)*

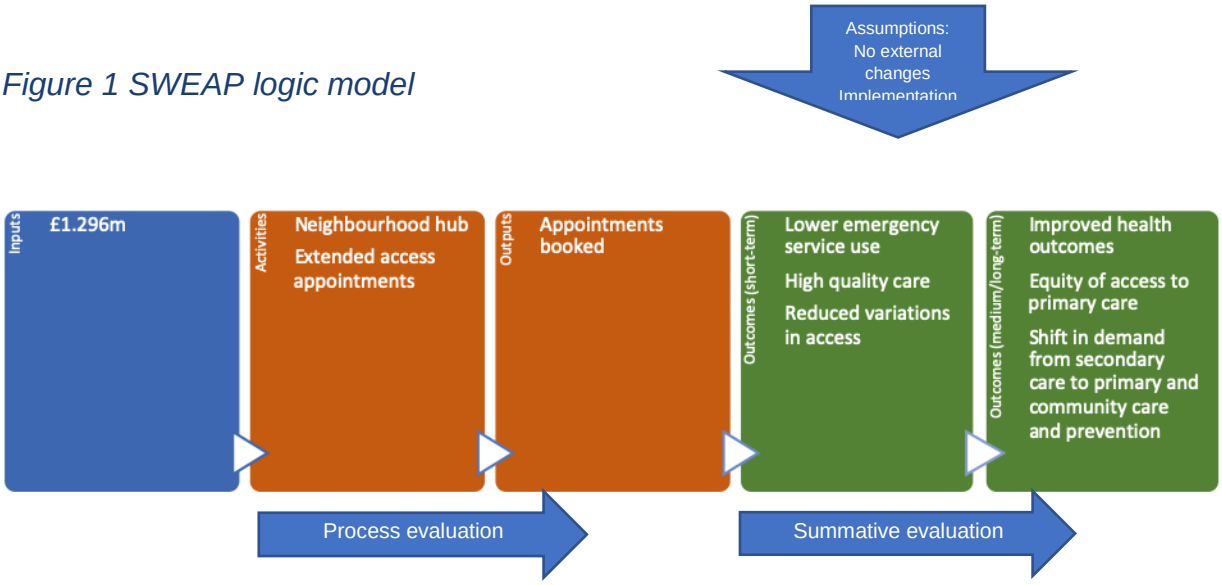
1.3. Aims of the report

As part of their ongoing collaboration with NIHR CLAHRC Greater Manchester (CLAHRC GM), NHS Salford CCG asked CLAHRC GM to conduct an independent evaluation of the SWEAP programme to support ongoing decision-making concerning the design, delivery and commissioning of the extended access service. The SWEAP evaluation contains both qualitative and quantitative assessments of the scheme to inform whether the intended outcomes are being realised.

2. Evaluation approach

The intended impacts of the SWEAP scheme can be understood using the logic model in Figure 1. The inputs to SWEAP comprise £1.296m per annum (of which £891k is sourced via funding from GMHSCP). These inputs generate activity in the form of components delivered within the scheme (e.g. the generation of hubs and extended access appointments provided) and outputs in the form of participation (use of this activity). These outputs might be expected to result in desirable outcomes, captured through outcome measures. Outcomes may be time-dependent with short-term (1 year) outcomes focussed on reducing variations in access and/or emergency service use (and costs) and improvements in patient satisfaction, and medium- to long-term (2-5 years) outcomes focussed on improved access, better equity in access, and any resultant changes in health and secondary care use.

Figure 1 SWEAP logic model



The aims of the evaluation were to evaluate the processes, activity and outcomes associated with SWEAP, providing a comprehensive assessment of the implementation and impact of the new service that will inform future decision making. There are eleven objectives to the evaluation:

1. To provide a description of the extended access service implemented, including changes made to the service over time.
2. To describe the processes associated with implementation of the extended access service, including the facilitators and challenges to its implementation, and how the latter have been addressed. To identify provider perspectives on what does and doesn't work with the extended access service.
3. Dependent on access to GP's, to qualitatively explore GP's experience of the extended access service, including their perceptions of impact on core hours.
4. To examine the cost of providing the extended access service and identify variations in value for money across schemes.

5. To examine the activity (overall and by month/week) associated with the extended access service, with a particular focus on appointment availability, appointment booking and appointment utilisation.
6. To further examine appointment availability, appointment booking and appointment utilisation (overall and by month/week) by:
    a. Hub location
    b. Day of the week and time of day
    c. Type of appointment slot (i.e. same day/pre-booked)
    d. Discipline (i.e. GP/nurse/other healthcare professional appointment)
    e. Purpose of appointment and/or appointment outcome
    f. Appointment format (i.e. face-to-face/telephone)
    g. Service user age, gender, ethnicity/deprivation and registered GP practice
7. To contrast appointment uptake and identify if and how the extended service could be modified to generate better value for money.
8. To explore any correlation between utilisation of the extended access service (by practice) and hospital activity, specifically:
    a. Overall A&E attendance
    b. A&E attendance (self-referral, minor intensity only)
9. To explore any correlation between utilisation of the extended access service (by practice) and other urgent care activity, specifically:
    a. Out of Hours (OOHs)
    b. NHS 111
10. Where feasible, to explore any correlation between utilisation of the extended access service (by practice) and patient perceptions of primary care as reported in the GP Patient Survey.
11. To understand, via patient records, whether the extended access service is meeting patients' needs from a clinical perspective.

Objectives 1-3 are assessed via documentary analysis and semi-structured interviews with 18 participants. These findings form Sections 3 and 4 of the report: 'SWEAP Service Overview' and 'Qualitative Evaluation'.

Objectives 4-7 are assessed via assessments of appointment activity and information on the costs of the SWEAP service provided by NHS Salford CCG. These findings form Section 5 of the report: 'Quantitative Appointment Analysis'

Objectives 8-9 are assessed via assessments of service use with data provided by NHS Salford CCG. These findings form Section 8 of the report: 'SWEAP Impact Analysis'. **Objective 10** is assessed via assessment of GP Patient Survey responses in 2018 and contained in Section 9.

Additional analyses were requested by NHS Salford CCG to obtain an understanding of the benefits of appointments beyond impacts on service use. These included an

assessment of survey responses of SWEAP attendees and a clinical audit of a selection of SWEAP attendees (**Objective 11**). These findings form Sections 6 and 7 of the report: ‘SWEAP Patient Survey Data Analysis’ and ‘Clinical Audit Assessment of a Sample of SWEAP Appointments’.

3. SWEAP service overview

Table 2 outlines the key features of the SWEAP intervention, which can be summarised as the provision of evening and weekend GP appointments, usually outside the patients' usual practice (in a neighbourhood hub) and most likely not with their usual GP. Appointments, for the patient, should function in the same way as a core hours appointment, representing an extension of provision of GP appointments. The aim was for sessions to be delivered in each neighbourhood on weekday (Monday to Friday) evenings, and also on Saturday and Sunday lunchtimes.

SWEAP is not a self-referral service. Patients ring their practice seeking an appointment as usual. Depending on the practice they might be offered a SWEAP appointment routinely, or only if the waiting times in the practice are too long. Some practices also highlight the availability of SWEAP appointments on their introductory message when a patient rings in.

Table 2 TIDIER checklist summarising the SWEAP intervention*

NAME

Salford Wide Extended Access Pilot (SWEAP). Supply of additional primary care appointments, provided during weekday evenings and weekends, implemented across one CCG area.

WHY

Improving access to primary care has been a priority across Greater Manchester. Seven day a week access to primary care was a requirement of the GM Healthier Together Primary Care Standard and also a priority under the GM devolution agreement.

The Healthier Together Promise agreed that "…by the end of 2015, everyone living in Greater Manchester who needs medical help, will have same day access to primary care services, supported by diagnostic tests, seven days a week". The Association of Governing Groups (AGG) have an agreed definition of what the 7-day access service should entail. The minimum standard of provision should be:

- 7-day access to primary care services via a networked model in localities/neighbourhoods
- 4-6 hours at weekends
- 1.5 hours per day (6:30-8pm weekday evenings)

The AGG standards are in line with the national standards for extended access delivery (NHS England and NHS Improvement, 2016), which stipulate that appointments should comprise:

- A minimum of 30 minutes consultation per 1,000 registered patients
- Include pre-bookable and same-day appointments
- Cover 1.5 hours after 6:30pm on weekdays, and
- Should be on both Saturday and Sunday in line with patient needs.

WHAT

Materials: Folders containing relevant information, for example, details about particular pathways, are updated at the weekly team leaders' meeting and then distributed to the hubs, to be provided to receptionists and clinicians at each SWEAP shift.

Practice reception staff use the SWEAP booking system to view and book appointments.

Clinicians providing SWEAP appointments use the 'Vision Anywhere' software.

Procedures:

The SWEAP clinical lead, operations manager and team leads meet weekly, to discuss the service and any updates.

Practice receptionists book patients into appointments. SWEAP receptionists receive patients at the hub sites. GPs and nurses provide the appointments.

All reception and clinical staff working at the hub sites are provided with the folders of information at each shift.

Patients contact their general practice – by telephone or in person, to request an appointment and practice reception staff use the SWEAP booking system to find and book a SWEAP appointment. After the SWEAP appointment, if a follow-up general practice appointment is needed, the patient contacts their practice again and is booked into either a follow-up SWEAP appointment or one at their practice. Onward referral is also completed via the core hours practice, aside from cancer referrals, which are completed by the SWEAP clinician through a dedicated online system.

WHO

SWEAP is staffed with receptionist and at least one clinician (GPs, practice nurses, ANPs and/or HCAs). The receptionists are already based in local practices and work the SWEAP shifts in addition to their regular roles, some clinicians are also based in local practices and some are locums from outside Salford CCG, employed via agencies.

HOW

Patients attend individual, face to face appointments.

WHERE

The appointments are run from five locations, one in each neighbourhood, mostly 'Gateway centres' (providing community services) and a health centre, three of

which have general practices co-located in the same building. Originally, patients accessed appointments only at their local hub, i.e. the one in the neighbourhood where their GP practice is located.

SWEAP makes use of rooms at these premises for the appointments. Medical equipment (kept on a trolley), prescriptions and printers for use during the sessions are provided by SWEAP at each hub site.

WHEN AND HOW MUCH
Patients attend SWEAP appointments as needed, including one or more 'one-off' visits for issues requiring only one appointment, or, where an issue warrants more than one appointment, an initial appointment plus follow-up appointments with a SWEAP clinician(s).

TAILORING
By their nature, the appointments cover a wide range of health issues and each is therefore tailored to the needs of the individual patient.

MODIFICATIONS
The service was rolled out in stages, with hubs becoming operational at different times.
Access was altered, from 1st April 2018, to allow patients to access appointments at any hub.

*TIDieR (Template for Intervention Description and Replication) checklists aim to provide sufficient information on an intervention to enable replication.

Table 3 provides an overview of the five neighbourhoods of Salford, in terms of their size (patients and practices), data record management system and SWEAP offering (that is, location, start date and opening hours). The quantitative analysis of appointments (Section 5) will reveal more about uptake by neighbourhood, including sessions provided, and numbers attending, failing to attend and cancelling appointments. Mobilisation of the pilots varied. Variations in mobilisation occurred at the request of SPCT due to procurement extension (commencement moved from 1st April 2017 to 8th May 2017) and IT and estates issues (implementation of the service and opening of buildings and provision of security at weekends respectively).

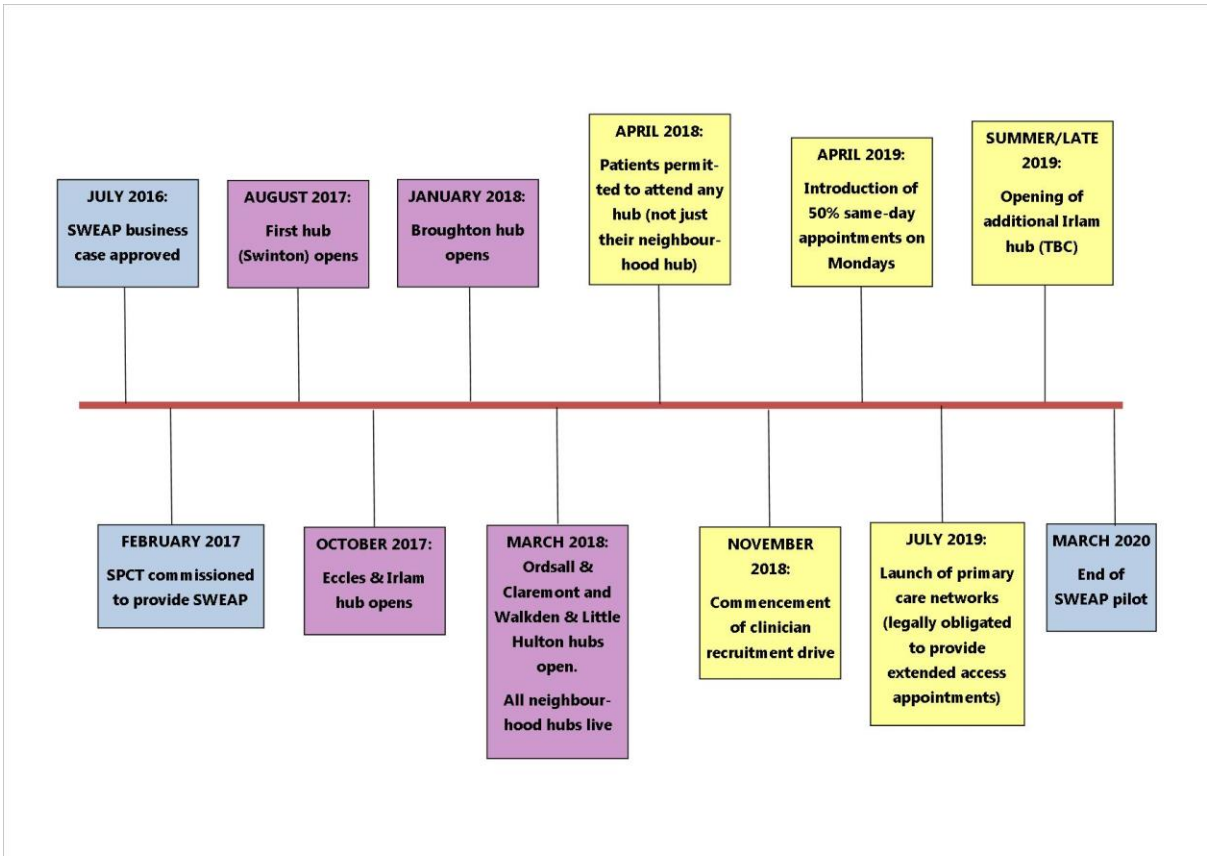
Table 3. Neighbourhoods of Salford CCG - description and SWEAP provision details

SPCT neighbourhood	Local population, general practice provision and software systems	Hub premises and dates service went live
Broughton	Registered patients: 43,150 Number of practices: 10 GP practices (3 run by the same GP) Software: Vision 9, EMIS 1	Hub location: Located in a health centre. 2 GP practices co-located in same premises. Proposed activation: March 2018 Activated: 16th January 2018
Swinton	Registered patients: 45,983 Number of practices: 4 GP practices Software: EMIS 3, Vision 1	Hub location: Located in a Gateway centre. No GP practice on site. Proposed activation: April 2017 Activated: 14th August 2017
Ordsall and Claremont	Registered patients: 67,326 Number of practices: 10 GP practices Software: Vision 7, EMIS 3	Hub location: Located in a Gateway centre. 1 GP practice co-located in same premises. Proposed activation: December 2017 Activated: 22nd March 2018
Little Hulton and Walkden	Registered patients: 40,472 Number of practices: 11 GP practices Software: EMIS 10, Vision 1	Hub location: Located in a Gateway centre. 1 GP practice co-located in same premises. Proposed activation: September 2017 Activated: 22nd March 2018
Eccles and Irlam	Registered patients: 75,700 Number of practices: 12 GP practices Software: Vision 10, EMIS 2	Hub location: Located in a Gateway centre. 2 GP practices co-located in same premises. Proposed activation: July 2017 Activated: 9th October 2017

3.1. Development of SWEAP over time

Figure 2 depicts some of the key points in the development of SWEAP from its initial approval until the end of the pilot. The business case for SWEAP was approved in July 2016, with SPCT being commissioned to deliver the service in February 2017. Hubs began opening later in 2017, with the first in Swinton (August 2017) and the last in Walkden and Little Hulton (March 2018). In April 2018, the service changed so that patients could book appointments in any hub, as opposed to being limited to attending only their neighbourhood hub. In April 2019, based on feedback from practices, 50% of Monday appointments started being reserved for same-day booking. The pilot is due to end in March 2020.

Figure 2 Timeline of SWEAP



4. Qualitative evaluation

4.1. Data collection

For the qualitative evaluation of SWEAP, the CLAHRC GM research team undertook semi-structured interviews with 18 participants. Participants were identified by key contacts within the CCG as being associated with SWEAP and likely to have useful perspectives on the pilot ('snowball' sampling).

Table 4 summarises our sample by job role, which included people working in strategic (e.g., clinical neighbourhood leads, CCG directors and SWEAP service coordinators), clinical (e.g., Salford and SWEAP GPs) and operational roles (e.g., practice managers, SWEAP receptionists). Sixteen participants had individual interviews with the remaining two having a joint interview. Interviews were completed between March and June 2019, usually in the place of work of the participant, or a private room at NHS Salford CCG offices.

Table 4 SWEAP participants by job role

Job role(s)	Number of respondents
CCG Neighbourhood Leads (also Salford-based clinician)	3
CCG Directors	2
SWEAP Clinical Directors (also Salford-based clinician)	2
SWEAP service coordinators	2
SWEAP GP	2
SWEAP non-clinical service delivery (team leaders/receptionists)	3
SPCT Neighbourhood Leads (also Salford-based clinician)	2
Salford-based non-clinical service delivery	2
Total	**18**

4.2. Implementation of SWEAP: Processes, facilitators and barriers

As part of our qualitative evaluation of SWEAP, participants were asked to give their perspectives on several areas around the implementation of SWEAP to highlight the aids and challenges to service delivery, with participants given the opportunity to raise any other relevant areas for discussion. Interviews centred around five key themes: information technology, information governance, workforce, resources & infrastructure, and communication & engagement.

4.2.1. Information technology (IT)

Of any area, IT was the dominant theme in discussions of the implementation of SWEAP, particularly as the cause of a large number of cancelled sessions. NHS Salford CCG GP practices have record management systems using either Vision or EMIS software.

A notable number of sessions have been cancelled due to IT issues, such as the Vision Anywhere system not loading patient records, or failing to operate at all. This has at times also been due to issues surrounding the IT infrastructure in each of the Gateway centres, such as firewalls in the Gateway's system preventing access to online resources, and the differences in processes between the 'owner' of the Gateway's IT (such as Salford Royal Foundation Trust and Salford City Council):

> *Some of the hardware that we use is owned and managed by…[Greater Manchester Shared Services] GMSS… and that's … easier to work with in terms of hardware, getting software amended, upgraded, getting different things plugged into different pieces of machinery, that's a relatively simple process. But some of the hardware that we use is owned and managed by Salford Royal. So it means that we have to go through GMSS, who then liaise with Salford Royal on our behalf to get things changed, fixed. The firewalls that they have on their computers are very different. .. so at one point they weren't allowing us any, um, webpages… So to try…and…and then…and if we're trying to upload a set of standards about guidelines or whatever, um, again, a relatively easy process to go through GMSS, but to go through Salford Royal, um, it was slow, arduous, took forever. (SWEAP Clinical Director 01)*

In relation to the latter, at times SWEAP staff have encountered problems identifying who they should be speaking to when reporting issues with the Gateway IT, and also reported issues with the quality and availability of out-of-hours support for Gateway IT as well as Vision Anywhere. Central SWEAP staff (based at SPCT) are available to respond to problems from the SWEAP clinics, but at times have only been able to log the problem due to issues with accessing out-of-hours support.

> *Um, our biggest problem…is the IT… we don't feel like there's enough support with the IT…we don't know how we would get round that and get that more support… but it's just…it's just little things…getting scanners installed, and things like that, and it just takes so much time communicating with these outside sources…we just feel it'd be really good if we had like an IT person that we'd say, right, you know, about IT, we need this scanner setting up, can you go out and do it?…that would make it a lot easier for us…and when there's a live incident, something going on, um, they can take it on and deal with that rather than us having to drop everything else*

that's going on just to deal with that big IT issue really. (SWEAP Service Coordinator 02)

The IT system is also limited in terms of onward referral. The IT set up has resulted in SWEAP clinicians experiencing difficulty in processing referrals. Notifications of the details of a SWEAP appointment are sent by email to the general practice (if EMIS) and Mail Manager (if Vision), a handful of instances occurred where this notification did not occur for EMIS practices leading to the need to call practices when an urgent referral is made. There were instances where e-referrals have been problematic to make leading to an e-mail referral approach in some instances. This is discussed further in the next section.

Whether Vision Anywhere is appropriate beyond the pilot for future extended access is a point for discussion due to the problems reported, including sessions cancelled due to IT failures and patient notes not loading.

IT issues have dominated SWEAP since its launch, but interviewees found that they had improved over time. IT issues in part have been resolved as the service has expanded (more hubs, more days per week, longer sessions). The general view was that to completely resolve these IT issues may not be feasible, with connectivity problems still occurring.

More positively, the central booking system used for SWEAP was considered appropriate and straightforward to use. Appointments are only made available when there is a clinician booked to staff the shift, which reduces the potential for patients being cancelled because no-one signed up to work the session. The availability of the SPCT SWEAP team to provide support around IT issues during sessions was cited as a positive. The ability of Vision Anywhere to share full patient records between the regular practice and the SWEAP clinician allowed SWEAP appointments to be like attending a core-hours appointment, fulfilling one of the aims of the service for Vision using practices.

4.2.2. Information governance

As providers, SPCT selected Vision (specifically Vision Anywhere, which uses a cloud-based system to share records between a patient's usual practice and the SWEAP service) to support SWEAP, leading to a variable experience depending on which software practices used.

The impact of this was that sometimes patients couldn't receive prescriptions, or clinicians were reluctant to diagnose/refer without knowing more about the patients. It was also reported that there were often problems retrieving notes at all during sessions, and when this happened it was more likely to be with patients from EMIS practices.

The sharing of notes between SWEAP and EMIS practices was identified as especially problematic for several reasons. Sharing of notes between Vision practices and SWEAP allowed for full notes including case histories and letters to be shared. The information available from EMIS practices was much lighter, providing little history and context for the clinician when dealing with the patient. During the lifespan of SWEAP, GDPR regulations were introduced that provided an opportunity to extensively review information governance for SWEAP, particularly around the sharing of records. Following GDPR, patients had to provide consent for their records to be shared with the SWEAP service on the first occasion they accessed it, and there were times where this was not completed ahead of an appointment, therefore preventing the appointment from going ahead. GPs described the practical consequences of working with the different IT systems:

> *One of the bigger issues with the EMIS practices is Vision Anywhere does not talk with the EMIS practices' scanned letters…I can see every other bit of their notes but I can't see the hospital letters…if it's a Vision practice, if they do it [referring to the patient having given consent for their records to be shared], I get immediate access. If it's an EMIS practice until the update runs, which most practices have run it overnight kind of thing…I can't…it cannot be accessed. (SWEAP GP 01)*

One possible solution to address this issue is encouraging all practices to work from one system (with EMIS being the generally preferred system amongst interviewees). This could be difficult to implement as practices have autonomy over which system they choose to use, and central (CCG) funding would be necessary to incentivise this change. Another solution is to have two systems running in each SWEAP clinic. This would be more laborious and time consuming for the SWEAP clinicians, who would have to switch between the two systems**,** and would likely add expense to the service.

It is also not possible to audit SWEAP appointments in a centralised way as the Vision Anywhere system is unable to compile this information. The reason given was that SWEAP, in effect, 'borrows' the patients' notes for the session but does not hold them beyond that. It was thought that auditing would be possible under an EMIS system.

As mentioned under **IT**, in order to ensure patient referrals were communicated to their usual practice, a secure email system was established for the SWEAP service to return such notes. This workaround was a practical solution to the limitations of Vision Anywhere, and was reported to work well. However, some data breaches were reported whereby patients' notes were being sent to the wrong practice. The onus was then on the practice incorrectly receiving the record to flag this up and ensure that the correct practice was informed. The impact of this was the potential for some referrals not being followed up.

4.2.3. Workforce

Staffing of SWEAP was highlighted as another major challenge for the service, particularly at the beginning. Reasons for not wishing to take on SWEAP shifts included that the 'office hours' nature of general practice was part of its appeal (this was explicitly stated in relation to practice nurses), and clinicians feeling that they worked sufficient hours at present. The original plan was to employ Advanced Nurse Practitioners to run appointments; however, it has not been possible to make arrangements for non-medical prescribers to prescribe within the service and therefore none have been employed within SWEAP, thus limiting the health care professionals available to provide the sessions.[6]

Sessions are only made available on the central booking system when there is a clinician signed up to work the session. Due to an initial low uptake of Salford-based clinicians taking SWEAP shifts, out of area locums were employed to deliver the service. Some concerns about clinics being staffed by locums, as opposed to local GPs from Salford practices were expressed; out of area locums are less familiar with local care pathways (for example, self-referral for counselling and physiotherapy services), and may also be less available to communicate with patients' regular practices in the event of a query or some essential follow-up from the appointment.

> *[A SWEAP consultation] is a one-off session, and so there are issues then, well, what happens if, if the patient needs follow-up appointments? So there's an issue about how you arrange a follow-up and how you get any continuity within that. (CCG Neighbourhood Lead 02)*

SWEAP have made efforts to address this shortage of clinicians. Firstly, they established that one barrier to clinicians participating in SWEAP was the extra cost for medical indemnity insurance they would have to acquire in order to cover the additional hours of practice. The government now covers the cost of this insurance, which may encourage more GPs to participate. Secondly, since November 2018, SPCT have been actively engaging with GPs and practices, such as through attendance at neighbourhood meetings. As part of this, recruitment leaflets have been distributed, including a higher rate of remuneration for Salford-based GPs working for SWEAP, to acknowledge their advanced understanding of delivering care in Salford. Practices are also notified of shifts that require staffing. Thirdly, the length of sessions was identified as a barrier for GP recruitment, as two hour sessions were not financially appealing enough, particularly when clinicians were often travelling long distances to get to the hubs. The provision of longer – up to three hour sessions – was introduced to address this. There has been a general increase in the number of GPs working SWEAP shifts, rising from 13 in October

[6] This is because it has been necessary for all prescribing in SWEAP to be recorded using 'spurious codes' – all GPs are issued with a 'doctor index number' which is a prescriber code used in one practice only. When a GP works in an additional practice(s), such as when working in SWEAP, they use a spurious code to record their prescribing, instead of their DIN. Only medical prescribers can use spurious codes.

2018 to 35 in March 2019.[7] Of these, two of the 13 in October 2018 (15.4%) were Salford-based, with this rate rising to 9/35 (25.7%) in March 2019.

An induction process for all SWEAP clinicians has been developed – partly for general good practice, but also in reflection of the number of out-of-area clinicians currently working on SWEAP. This is to ensure safe and good quality care is provided by clinicians familiar with local processes, the IT system and local referral pathways. The induction process has been strengthened over time based on feedback from clinicians and issues identified once the service was running.

Latterly, more non-GP clinicians (practice nurses and HCAs) have been recruited to the service, and one highlighted success is the increase in smear clinics being offered through SWEAP, which are reportedly well attended, as well as more availability of nurses to take blood samples. The SWEAP appointment analysis supports this, with an increase in HCA appointments over time in all areas aside from Pendleton.

Another development for workforce was the introduction in March 2019 of the team leader role to provide continuity for the service. Given that the clinical and administrative staff for SWEAP are not constant in each hub (i.e., different staff for each session), there were occasions when supplies were not being monitored and might run out during a session. The team leader role – an administrative function - was introduced to provide continuity to the service in each hub, with team leaders ensuring supplies are maintained, as well as providing a consistent point of contact for staff working the sessions. Team leaders also attend a weekly meeting at SPCT to review the service.

Therefore, whilst workforce has presented a very real challenge to SWEAP, particularly impacting the availability of sessions, workforce issues have proven easier to resolve compared to IT issues.

4.2.4. Communications and engagement

SWEAP sessions have been promoted to patients in practice waiting rooms with freestanding posters highlighting the service. It is not known what proportion of practices still display these posters. Regular updates to promotional materials could help sustain interest in SWEAP, ensuring that it is always prominently advertised within practices.

SWEAP is not widely promoted online. A recent (26th July 2019) online search for ‘SWEAP Salford opening hours’ yielded no results (within the top selection) providing a summary of hub locations and opening hours. There was little information online to describe the service for patients.

[7] SWEAP Improvement Plan 2019/20 (2019), Salford Primary Care Together

From the practice side, there was variation in how often the service was communicated to patients. In some practices, SWEAP appointments were offered routinely as part of all the options available to patients, whilst for others SWEAP was suggested only if the wait time for a core hours appointment was deemed too long. We did receive feedback from multiple interviewees who were also patients in Salford, and they stated that they had to explicitly request a SWEAP appointment from their home practice, having been told there was no other availability with SWEAP not being mentioned at all. Therefore SWEAP appointments are not always offered as a routine part of primary care bookings. The practice administrators that we interviewed were using the SWEAP booking system as part of their everyday work, but they had observed other administrators who did not use it in the same way:

> *other receptionists, I think, struggle, they forget about SWEAP sometimes, I think…Because it's a separate system you've got to log into…And it can be a bit complicated sometimes, I think, saying to people …do you want to go around the corner? Like, you know, over here to this place they've never been to. Sometimes they don't offer SWEAP appointments …so I think it's receptionists I think tend to forget to offer them to people…Or they're not sure or they're not maybe confident enough …or not being sure what the doctors can and can't do. (Salford-based non-clinical service delivery 01)*

One positive around communication was the availability of named contacts within the core SWEAP team for practices to provide feedback and ask questions. This extended to during the sessions themselves, where team leaders and SWEAP coordinators are available to respond to any emerging problems. This two way communication has helped effect change to the service, such as the introduction of same-day appointments on a Monday to assist with urgent care needs.

The central SWEAP team reported concerted efforts to engage with practices, particularly those currently not booking many or any SWEAP appointments. Reasons for varying practice engagement are manifold, including:

- Some low-use practices are so because they have manageable waiting lists and therefore do not perceive a need to use extended access beyond their own direct enhanced service (DES) offering.
- Another barrier arose from political objections to SWEAP in principle, and arguments that evidence did not exist to show that extended access improves patient care or patient satisfaction:

> *We're extending something that is already in some senses being provided, that is pre-bookable appointments are already there…there is also an understanding really from the general practice community this is very much a political move, because there's not a great deal of evidence to show this improves patient care or improves patient satisfaction… it's a very political move because actually all that's being offered is weekend, 7-day general practice. (CCG neighbourhood lead 01)*

- Some practices are reluctant to use SWEAP because of the shortfalls in the service in terms of availability (i.e., inconsistently available shifts, so it could never be assumed that a SWEAP clinic would definitely be running on a given evening or weekend day), or because of negative patient feedback when a session was cancelled last minute. In relation to availability, the perception that one or more practices in the area were dominating bookings was a barrier for some, as they were finding that SWEAP appointments were not consistently available.
- In other cases, a reluctance to use an additional booking system or a general unwillingness to engage with an additional duty was reported.
- Where practices are dominating bookings for SWEAP, reasons cited included these practices having a higher case load and needing to reduce waiting times, being more willing to engage with SWEAP, or engagement being led within the practice by someone enthusiastic or otherwise associated with the pilot.

Patients were, on the whole, willing to use the service when it was offered to them.

> *I mean some patients you can offer it and they just don't want to go there; they want to see somebody they know…but the majority of the time patients are quite happy to get… that appointment… within the week .(Salford-based non-clinical service delivery 02)*

Our interviewees tended to state that those using the service successfully valued it and expressed a willingness to use it again.

4.2.5. Resources and infrastructure

As described elsewhere, SWEAP operates on a hub system, with one site used per neighbourhood. Most neighbourhoods used Gateway buildings, which are multipurpose centres providing many council functions, such as libraries, GP clinics, dentists, physiotherapy and social support. Most interviewees felt this was appropriate, but alternative approaches were mooted, such as a rota system where SWEAP sessions are held in different core hours practices on different days. With this suggestion it was also highlighted that different IT issues would emerge, given that practices tended to use one of two data management systems (EMIS and Vision).

Other issues reported around the use of hubs were that some sessions were constrained in terms of when they could be held by Gateway building opening times, and access to buildings was sometimes a problem due to issues around security. The use of shared spaces, with SWEAP effectively borrowing rooms for sessions, was found to generally work well, but there was not always a secure space to store equipment between sessions and some theft of supplies was noted.

The Eccles and Irlam neighbourhood is unique in Salford in that it is geographically wide. As the hub for this area is situated in Eccles, a low uptake for SWEAP from Irlam practices was reported due to the prohibitive distance the Eccles Gateway was located from Irlam. This is supported by the appointment analysis, where Irlam-based practices have the lowest rate of participation in SWEAP across the neighbourhood. To address this, SWEAP are looking to modify the provision for Eccles and Irlam, with sessions being split between two hubs – one in Eccles and one in Irlam. This would not represent an increase in provision, rather a reallocation. The shift from offering patients appointments only at their respective neighbourhood hub to any hub in Salford was viewed positively in offering the patient more choice and flexibility.

For resources, SWEAP was limited in the appointments it could offer at inception, largely due to the staffing issues outlined above. Improvements to this have facilitated a larger number of smear clinics being made available, as well as blood tests. Travel clinics (where travel vaccinations are provided) were suggested as another key offering that could be delivered routinely through SWEAP.

The general view was that SWEAP was working within its budget, with some interviewees pointing out that the offer to GPs for working on SWEAP was lower than offered for previous extended access programmes. Given that SWEAP has rarely run a full set of sessions across all hubs on all days, some questioned whether it would run to budget when at full capacity. The increase in sessions provided by clinicians other than GPs should help to reduce costs.

Clinicians felt that they had everything they needed to complete sessions in terms of equipment. The introduction of the team leader role has helped ensure that supplies are consistently available, as previously there were occasions when clinicians had to borrow equipment (such as sample pots) from the daytime practice in the hub in order to complete consultations.

4.2.6. Clinician perspectives: Current offering and the sustainability of SWEAP

Through engagement with clinical neighbourhood leads and other GPs working in Salford and/or on SWEAP, we were able to gather the perspectives of several clinicians. Most felt the service useful in reducing wait times and providing more choice for patients. It was felt that SWEAP served a need, as sessions were being booked in and filled regularly. In terms of the impact on core hours, the general feeling was that for individual clinicians this was minimal, as SWEAP may only represent a saving of one or two appointments per week. However, for high use practices, the reduction in wait times and the availability of other options when booking in patients was welcomed. Issues around the service still need to be resolved for some clinicians to have more faith in using it, in particular the data breaches during the referral process (as mentioned under IG above) and the lack of

reliability in the IT. The inequitable access between practices was mentioned by several interviewees:

> *I think we need to think about how patients are able to get access…how individual practices use the service in a consistent way, to address that kind of variation in utilisation of the service. I think, we, we really need to have a think about handover, I think we probably need to have a think about the quality of some of the consultations that are happening. Erm, it needs to be different, in my view. (CCG Director02)*

For other areas of the health and social care system, the prevailing opinion was that SWEAP would have little impact on out-of-hours urgent care, particularly given the pre-bookable nature of many SWEAP appointments.

Those working on the service described enjoying their role whilst also highlighting frustrations around IT. The provision of 15 minutes appointments (as opposed to the usual 10 in core hours practice) was seen as a benefit, allowing for more time to discuss symptoms and actions:

> *…generally people are really appreciative of the service, because, one, because you see four patients an hour, and in most GP practices in the Monday to Friday you'd see five or six an hour…so generally people are happy because you're running to time. And you have a little bit longer with them, so it's not quite as rushed…often the problems are a bit more straightforward than the problems that I've…dealt with…in my day job yesterday, say…and they're often very appreciative just to be able to see a GP at the weekend or in the evening, so usually it's positive. (SWEAP GP 02)*

Overall, staff interviewed found the SWEAP offering to be generally appropriate in meeting the aims of providing extended access, in that it provided more choice for patients, was able to meet the needs of general practice appointments, as well as increasing overall capacity in primary care for the area. There was a perception that with time, extended access would become a regular function of primary care, and more people would use the service when provision was consistent and known to be a permanent fixture. However, the IT issues meant that some felt that booking onto SWEAP might be more trouble than it was worth if the result was dissatisfied patients then logging complaints with the home practice when pre-booked sessions were cancelled. In general, stabilising the IT system underpinning SWEAP was an important issue for future sustainability.

4.3. Discussion

The qualitative evaluation explored the processes of implementing the SWEAP service. Our analysis identified five key influencing factors: information technology; information governance; workforce; resources and infrastructure; communication and engagement.

Having different record management systems running created inconsistencies in the provision of patient records. Limitations restrict the ability for onward referrals and some sessions were cancelled due to access issues and system failures. The central booking system was considered appropriate and where Vision management systems were in place, full patient records created the sense of the appointment being similar to a core-hour appointment.

Similar challenges and frustrations relating to IT have been found in previous evaluations of extended access.[8] The current study provides evidence of some progress, for example, GPs working at SWEAP having full shared access to notes on Vision practice systems.

Staffing of SWEAP was highlighted as a major challenge due to both reluctance to provide labour and practical issues such as the lack of arrangements for non-medical prescribers to prescribe within the service (restricting the inclusion of Advanced Nurse Practitioners). SPCT have made efforts to improve the offer with recruitment campaigns, expansion of session lengths and the coverage of medical indemnity insurance to cover the additional hours of practice. These have increased the number of GPS working SWEAP shifts.

The centralised booking system worked well and can be considered an example of successful federated working, being a 'back office' system effectively covering multiple organisations (GP practices).

There was variation in how the SWEAP service was communicated to patients. Some practices offered SWEAP appointments routinely, some subject to waiting times in core hours, some do not appear to offer appointments at all. This variation was the result of some practices feeling able to manage waiting lists with existing DES arrangements; perceptions of the benefit of the service on patient care and satisfaction; and negative experience(s) with the service. In addition to IT issues (above), the placing of hubs in Gateway buildings could be a constraining factor with regards to opening hours, and access to buildings. There was a general perception that the resources needed for sessions in terms of equipment were in place. Most clinicians felt the service was useful in reducing waiting times and expanding patient choice. The impacts on core hours was felt to be minimal as too were impacts on

[8] NIHR CLAHRC Greater Manchester. NHS Greater Manchester Primary Care Demonstrators Evaluation. [cited 2015 June]. Available from: https://www.research.manchester.ac.uk/portal/files/32297227/FULL_TEXT.PDF
NIHR CLAHRC Greater Manchester. GM Primary Care 7-Day Access Evaluation. [cited 2017 March]. Available from: https://www.clahrc-gm.nihr.ac.uk/media/Resources/OHC/GM-Primary-Care-7-day-access-report-evaluation.pdf
Nuffield Trust, Improving access out of hours. Evaluation of extended-hours primary care access hubs. [cited April 2019]. Available from: https://www.nuffieldtrust.org.uk/files/2019-05/bhr3-report-b1881-rgb-3.pdf

other areas of the system given the pre-bookable nature of many SWEAP appointments.

Elsewhere in the report (Section 6), we outline the results of a patient feedback questionnaire distributed at SWEAP sessions, where the feedback is generally positive. Feedback from patients opting not to use SWEAP, as well as perspectives from those who booked onto SWEAP but were ultimately not seen is required to fully understand the patient perspective.

Online self-referral to SWEAP was one suggestion for increasing engagement from the public side. As there is a general push to patients going online to access services, this would fit strategically with some of the aims of Salford CCG at present. It would be important to evaluate non-attendance rates between online and practice-based bookings.

5. SWEAP Quantitative Appointment Analysis

5.1. Data collection

SWEAP appointment data were provided to the CLAHRC GM study team by NHS Salford CCG. The dataset contained appointments for nearly twenty-three months, from the commencement of SWEAP in August 2017 (14/8/17) until June 2019 (30/6/19). All data were supplied in anonymised form, removing any identifiable details about the patient, including name, age, ethnicity and address.

The dataset included, for each appointment, time and date of the slot, the home practice of the patient, the location (hub) where the appointment took place and the attendance status of the appointment (attended/did not attend/cancelled/not booked). Sessions were only unlocked on the central booking system when a clinician signed up to take the shift. Therefore the dataset did not contain observations for sessions which were never made available because there was no-one available to staff them. Estimates of the shortfall between the maximum number of appointments that could have been provided and those provided can be made.

In terms of appointment status, four categories were identified. ‘Attended’ meant that the appointment was booked and the patient attended the session, and ‘DNA’ (did not attend) was used for appointments that were booked but the patient failed to attend without cancelling. Appointments were labelled ‘cancelled’ where they were booked but the appointment was subsequently cancelled, either by the provider(e.g., due to IT failure or staff sickness) or the patient cancelling the appointment. Finally, appointments were labelled ‘not booked’ if no patient booked that slot at all.

5.2. Data cleaning

Two key changes were made to the dataset on the basis of the timeslots provided. Firstly, a small number of appointments were recorded at times other than quarter hourly intervals (e.g., 11.10am). Where these occurred, the times were changed to their nearest quarter hour (e.g., 11.10am moved to 11.15am, 11.20am moved to 11.15am). Secondly, appointments logged on the system outside of the main SWEAP hours were removed as they did not reflect standard provision. Details of the appointment status for each of these are summarised by day in Table 5. Most out of core SWEAP hours appointments (n=110) were marked as ‘did not attend’ (DNA), with smaller numbers being attended (n=18), free slots (n=4) or cancelled (n=3).

Following exclusions based on time of slot, as well as those appointments deemed not attributable to SWEAP (e.g., due to winter pressures), a dataset of 19,541 appointments was analysed.

Table 5 Day and slot status of appointments excluded from SWEAP analysis for being out of core hours

Day	Attended	Cancelled	DNA	Free slot
Monday	1	-	-	-
Tuesday	2	-	-	-
Wednesday	1	1	-	-
Thursday	1	-	-	-
Friday	-	-	-	-
Saturday (before 9.30)	4	-	75	-
Saturday (after 12.15)	5	-	1	4
Sunday (before 9.30)	4	1	34	-
Sunday (after 12.15)	-	1	-	-

5.3. NHS Salford CCG total activity

Available appointments by day of week and financial year (wave)

Total NHS Salford CCG activity covers 14th August 2017 to 30th June 2019. This represents approximately seven and half months of financial year (wave) 2017/18 (n=4,610 appointments), all of 2018/19 (n=10,487 appointments), and three months of 2019/20 (April-June 2019, n= 4,444 appointments). Most appointments were available at weekends, with more being offered on Saturdays (n=5,990) than Sundays (n=5,460). The fewest appointments were available on Fridays (n=806). The breakdown of the 19,541 SWEAP appointments included in the dataset by wave and day of week are summarised in Table 6.

Table 6 Total NHS Salford CCG extended access provision by financial year and day of week

Wave	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
2017/18	305	374	339	364	270	1,730	1228	4,610
2018/19	1,244	832	1,136	936	411	2,954	2974	10,487
2019/20	424	420	523	388	125	1306	1258	4,444
Total	1,973	1,626	1,998	1,688	806	5,990	5,460	19,541

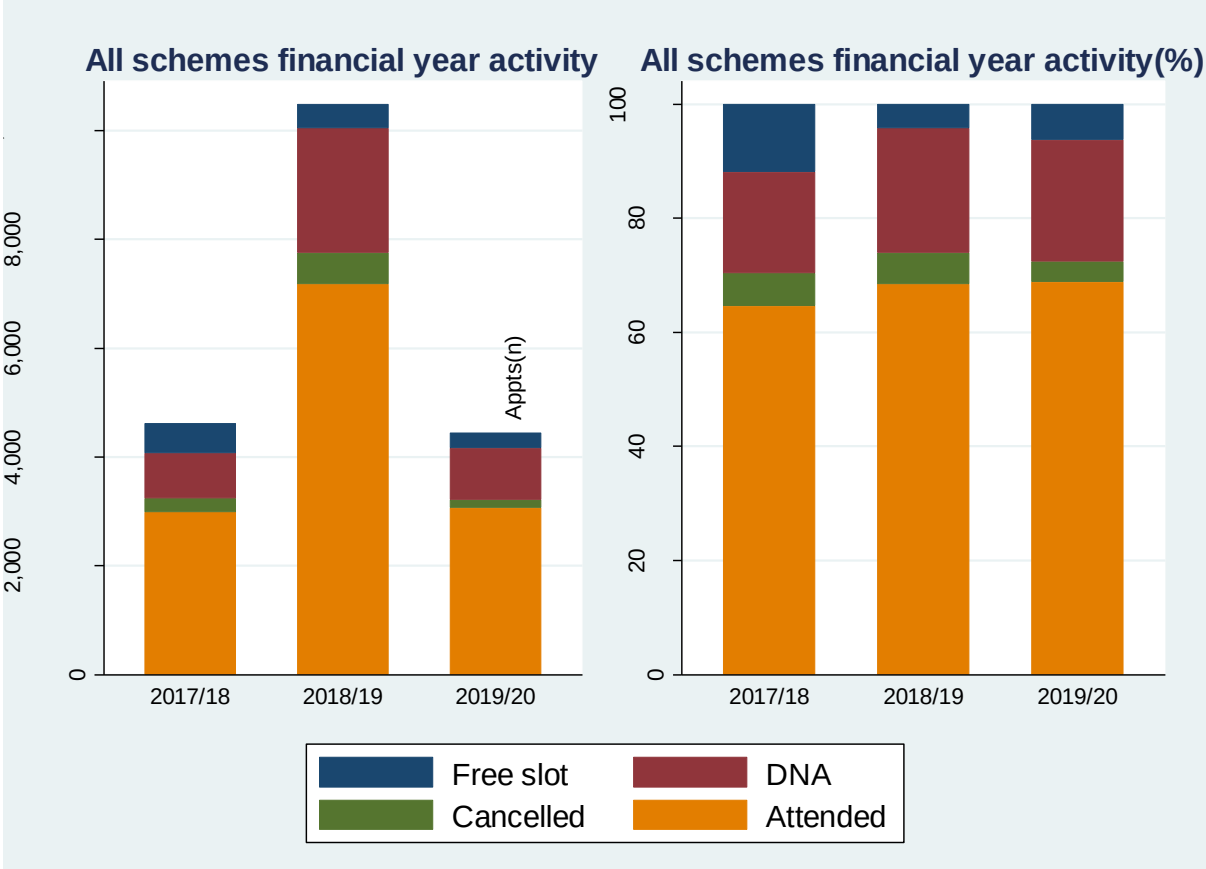
5.3.1. Attendance status by financial year (wave)

More than 2/3 of the 19,541 available SWEAP appointments were booked and attended (67.61%, n=13,212). Just over 1 in 5 appointments (n=4,074) were booked and not attended ('DNA', 20.85%), 1,264 (6.47%) were not booked at all, whilst the remaining 991 (5.07%) were booked and subsequently cancelled (Table 7 and Figure 3). Rates stayed relatively constant by wave, with the most notable change being the reduction in proportion of free slots from 2017/18 (11.87%) to 2018/19 (4.19%), translating into an increase in the proportion attending appointments and those classed as DNA. A reduction in cancelled sessions in the 2019/20 wave might represent improvements in workforce and IT, two factors most likely to lead to the cancelling of appointments by the provider.

Table 7 SWEAP activity by financial year (wave)

Wave	Attended (%)	DNA (%)	Cancelled (%)	Not booked (%)	Total
2017/18	2,977 (64.58)	820 (17.79)	266 (5.77)	547 (11.87)	4,610
2018/19	7,179 (68.46)	2,302 (21.95)	567 (5.41)	439 (4.19)	10,487
2019/20	3,056 (68.77)	952 (21.42)	158 (3.56)	278 (6.26)	4,444
Total	13,212 (67.61)	4,074 (20.85)	991 (5.07)	1,264 (6.47)	19,541

Figure 3 SWEAP activity by financial year



5.3.2. Provision by neighbourhood

Overall provision has varied by neighbourhood (Table 8). The Eccles (n=5,512) and Swinton (n=5,547) hubs have offered the most appointments to date, whilst the provision in Pendleton (n=1,238) has been much lower than all other neighbourhoods (Figure 4). Whilst Broughton and Walkden had the third and fourth highest volume of appointments respectively, Walkden had the highest rate of appointments per 1,000 patients (n=54.46), and Broughton the second highest (n=54.36) in financial year 2018/19. As with overall volume, Pendleton had the lowest rate per 1,000 patients for 2018/19.

GP appointments dominated the types of appointment provided, with the lowest proportion of GP appointments observed for Walkden (81.95%) and the highest for Pendleton (100.00%). All areas far exceeded the target of 29.67% of all appointments being delivered by GPs.

Figure 4 SWEAP activity by neighbourhood

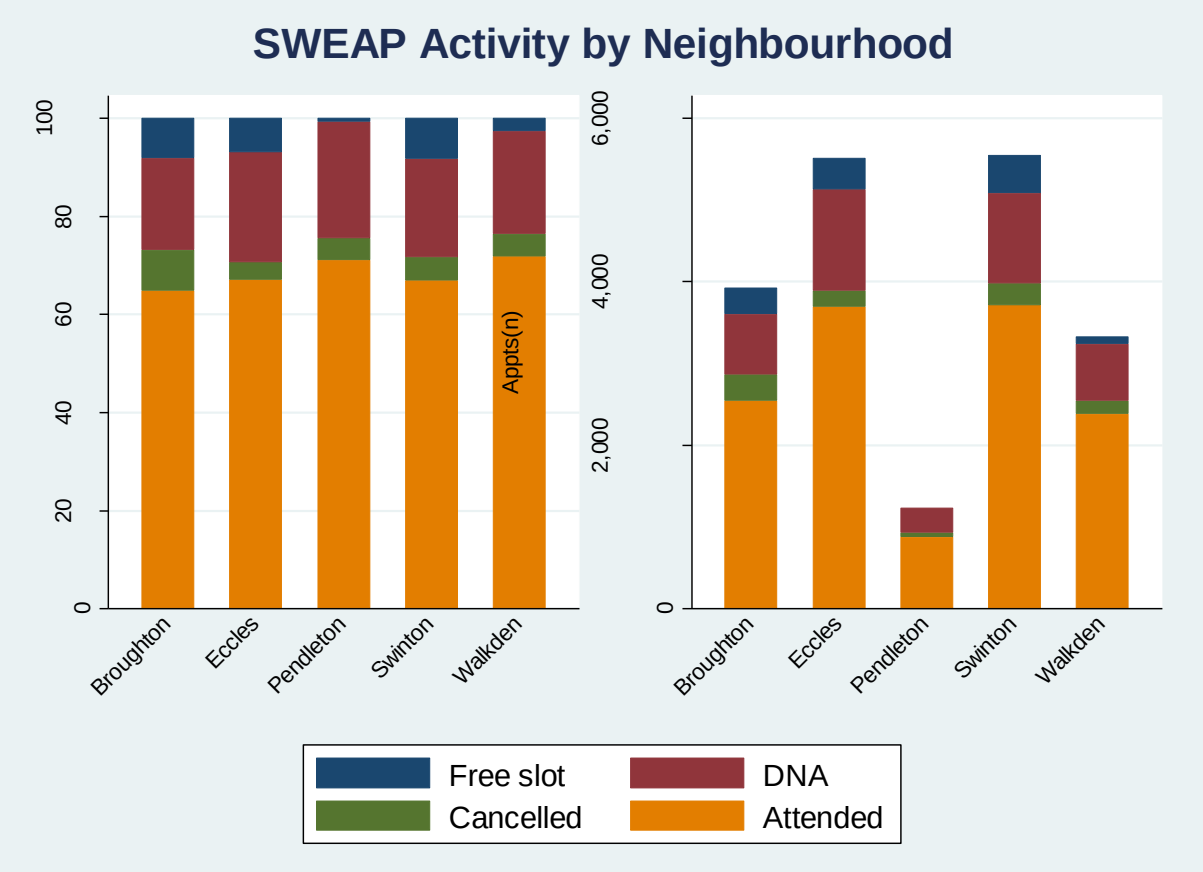


Table 8 NHS Salford CCG and neighbourhood hub comparisons

	NHS Salford CCG	Broughton	Eccles	Pendleton	Swinton	Walkden
Total appointments provided	19,541	3,920	5,512	1,238	5,547	3,324
Attended (%)	13,212 (67.71)	2,541 (64.82)	3,695 (67.04)	879 (71.00)	3,712 (66.92)	2,385 (71.75)
DNA (%)	4,074 (20.85)	736 (18.78)	1,238 (22.46)	295 (23.83)	1,109 (19.99)	696 (20.94)
Cancelled (%)	991 (5.07)	323 (8.24)	194 (3.52)	55 (4.44)	265 (4.78)	154 (4.63)
Free slots (%)	1,264 (6.47)	320 (8.16)	385 (6.98)	9 (0.73)	461 (8.31)	89 (2.68)
Provision (number of appointments)						
Monday	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:00 (6)	18:30-20:30 (8)	18:30-20:30 (8)	17:15-20:30 (12)
Tuesday	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	17:30-20:30 (12)
Wednesday	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	17:30-20:30 (12)
Thursday	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:30 (8)	17:30-20:30 (12)
Friday	18:30-20:30 (8)	18:30-20:30 (8)	18:30-20:00 (6)	18:30-20:30 (8)	18:30-20:00 (6)	17:30-20:30 (12)
Saturday	09:30-12:30 (12)	09:30-12:30 (12)	09:30-12:30 (12)	09:30-12:30 (12)	09:30-12:30 (12)	09:30-12:30 (12)
Sunday	09:30-12:30 (12)	09:30-12:30 (12)	09:30-12:30 (12)	09:30-12:30 (12)	09:30-12:30 (12)	09:30-12:30 (12)
2017/18 appointments	4,610	576	1,689	12	2,327	6
2018/19 appointments	10,487	2,346	2,642	924	2,371	2,204
2019/20 appointments	4,444	998	1,181	302	849	1,114
List size	272,631	43,150	75,700	67,326	45,983	40,472
Appointments per 1,000 (2018/19)	38.47	54.36	34.90	13.72	51.56	54.46
Weekly appointments per 1,000*	0.84	1.19	0.78	0.28	1.08	1.26
GP share of appointments**	85.74	82.86	87.08	100.00	85.54	81.95
Smallest attendance	Friday	Thursday	Friday	Friday	Friday	Tuesday

**based on all of 2018/19 and first quarter of 2019/20*

***planned share of appointments delivered by a GP in the example for Table 1 is 29.67 (54/182 appointments per week, Table 1)*

5.3.3. Attendance by neighbourhood by day of week

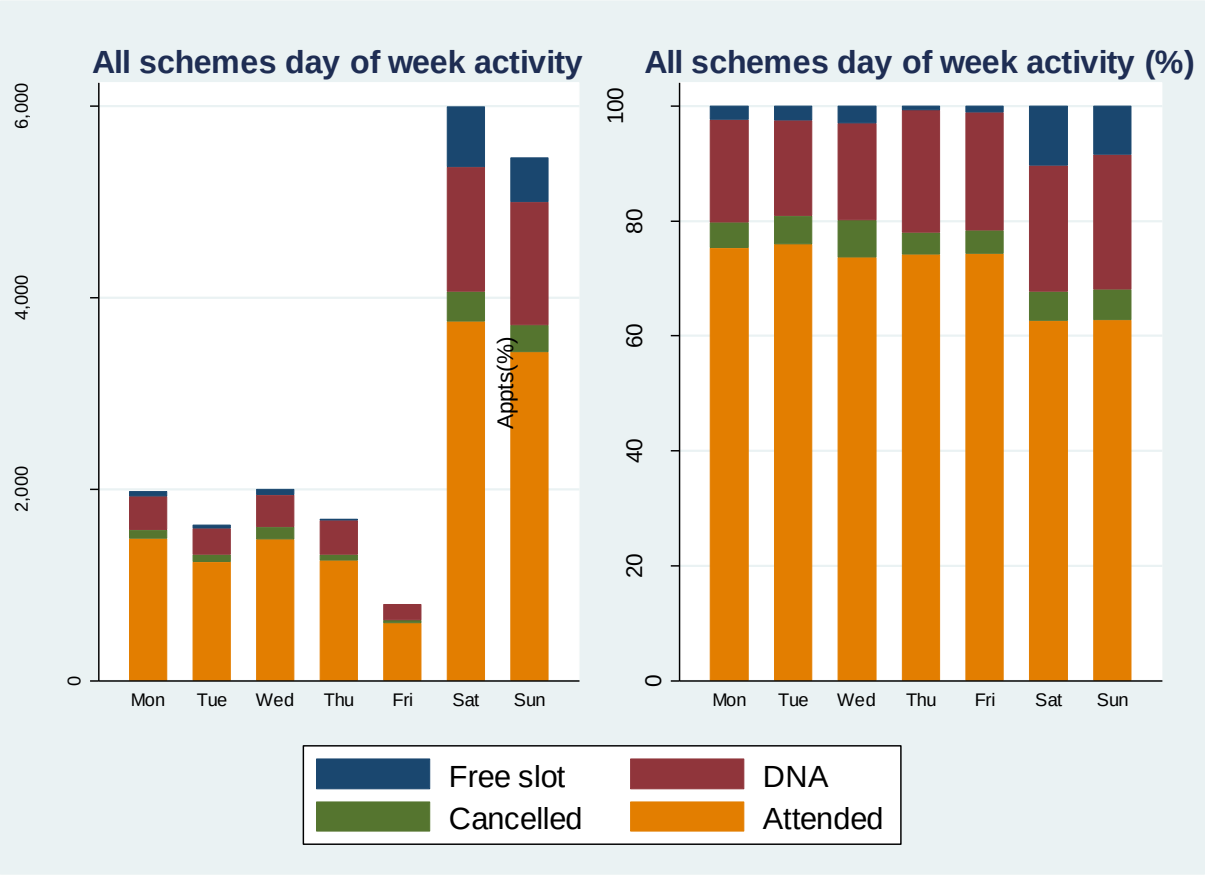
Activity by day of week is provided in Table 9 and Figure 5. Combined, weekend appointments represented 58.59% (n=11,450) of all available appointments, with the remainder taking place on weekday evenings. Attendance rates tended to be lowest at weekends, with 62.55% and 62.75% attending on Saturdays and Sundays respectively. Attendance was higher during the week, with a range of 73.62% (Wednesdays) and 75.89% (Tuesdays). DNA appointments were highest at weekends, with the observed rate on a Thursday being just lower than this (21.27%).Cancelled appointments were relatively stable throughout the week, with the lowest rate observed on Thursdays (3.73%), and the highest rate on Wednesdays (6.51%). Free slots were more likely at weekends, with 10.47% of Saturday appointments and 8.48% of Sunday appointments not being booked at all. By comparison, on weekday evenings, 0.83% of Thursday appointments were not booked, compared to the highest weekday rate, 3.05% of Wednesday appointments.

Table 9 SWEAP activity by day of week (%)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
Attended	1,484	1,234	1,471	1,252	598	3,747	3,426	13,212
(%)	(75.22)	(75.89)	(73.62)	(74.17)	(74.19)	(62.55)	(62.75)	(67.61)
DNA	351	270	336	359	166	1,307	1285	4,074
(%)	(17.79)	(16.61)	(16.82)	(21.27)	(20.60)	(21.82)	(23.53)	(20.85)
Cancelled	89	81	130	63	33	309	286	991
(%)	(4.51)	(4.98)	(6.51)	(3.73)	(4.09)	(5.16)	(5.24)	(5.07)
Not booked	49	41	61	14	9	627	463	1, 264
(%)	(2.48)	(2.52)	(3.05)	(0.83)	(1.12)	(10.47)	(8.48)	(6.47)
Total*	1,973	1,626	1,998	1,688	806	5,990	5,460	19,541
	(10.10)	(8.32)	(10.22)	(8.64)	(4.12)	(30.65)	(27.94)	(100.00)

*% totals are the percentage of total appointments provided (n=19,541)

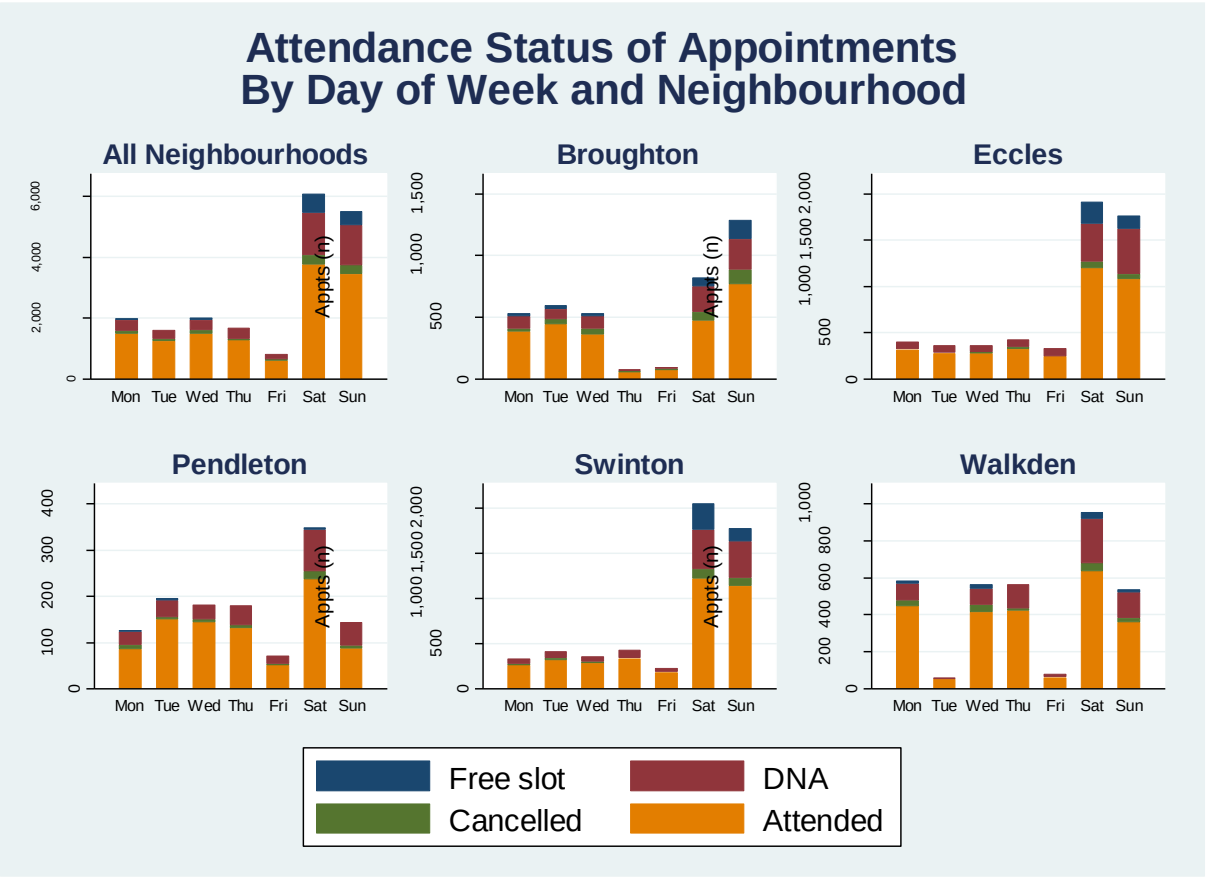
Figure 5 SWEAP activity by day of week



Provision also varied by day within neighbourhoods (Figure 6). Overall, evening appointments were least likely to be offered on a Friday (n=806), whilst Monday and Wednesday had the highest number of overall appointments (approximately 2000 appointments each for the duration of SWEAP to June 2019). There were slightly fewer appointments offered on Sundays compared to Saturdays.

The Eccles hub provided the most consistent weekday appointments, with only small fluctuations observed between days. Very few sessions occurred in Broughton on Thursdays and Fridays. Similarly, only a small number of sessions were held at the Walkden hub on Tuesdays and Fridays. In Pendleton, Fridays had the fewest appointments offered, followed by Mondays. For Swinton, Friday was the evening with the lowest offering. Broughton was unusual in that it provided far more Sunday appointments than Saturday appointments. All other areas had higher number of Saturday sessions than Sunday sessions, with this difference being most pronounced in Pendleton and Walkden.

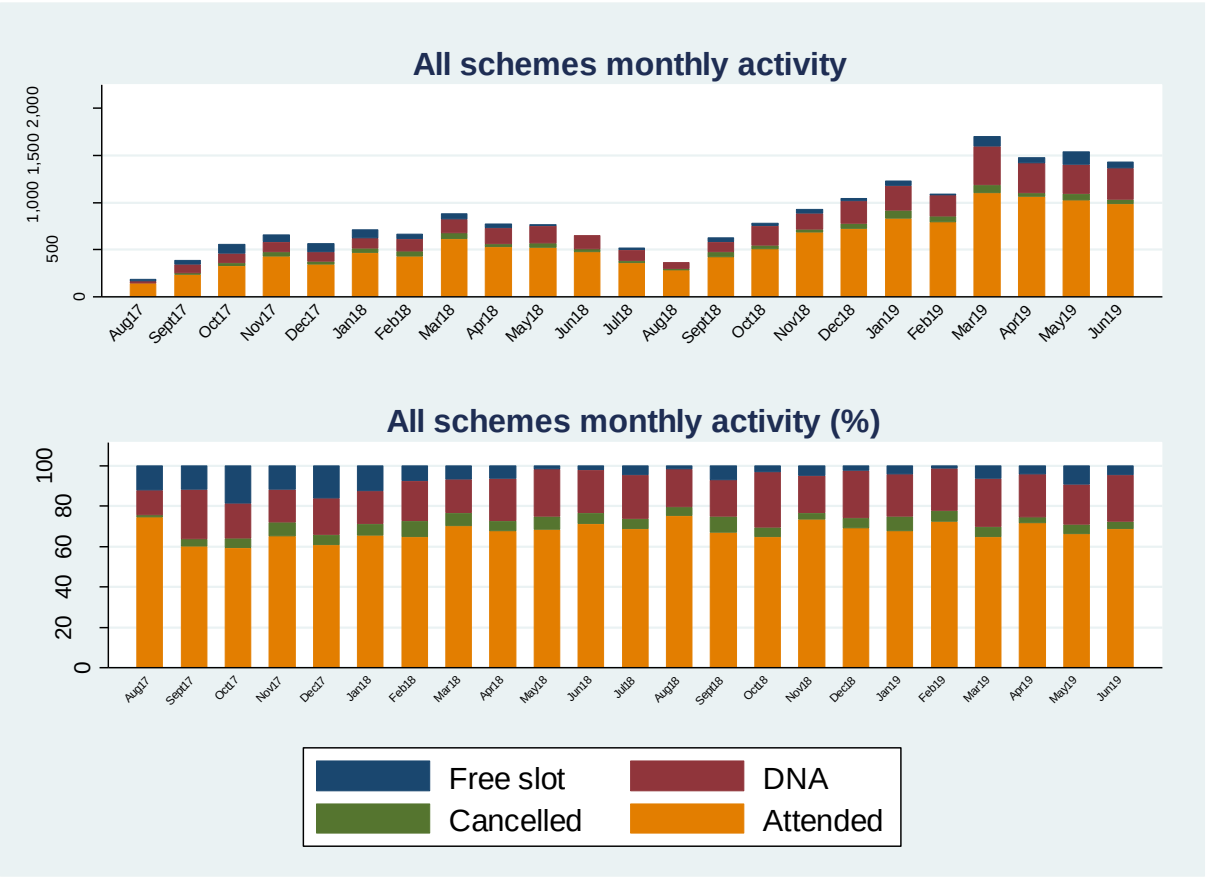
Figure 6 SWEAP activity by neighbourhood and day of week



5.3.4. Attendance by month

Figure 7 shows appointment activity for the duration of SWEAP to date, from August 2017 to June 2019. Available appointments initially increased from August 2017 as more hubs opened, aside from a dip in December 2017 likely attributable to the Christmas period. Availability declined throughout the summer of 2018, rising again from September 2018 to approximately 1500 available appointments per month from March 2019. Attendance rates as a proportion of overall appointments made available have been relatively stable over time, with no clear trend of those attending emerging.

Figure 7 SWEAP activity by calendar month (August 2017-June 2019)



5.3.5. Attendance status by day of week and time

SWEAP evening sessions were originally scheduled to run from 6.30-8pm on Monday to Friday, with additional appointments from 8-8.30pm added from October 2018. Accordingly, as can be seen in Figure 8, appointments at 8pm and 8.15pm were available less often than all earlier slots. Provision by day was generally consistent across time, with the fewest sessions available on Fridays. Attendance was also generally consistent across days and timeslots, with little variation in those attending, cancelling and not attending, as well as those slots not booked at all.

Weekend sessions were originally scheduled to run from 10am-1.30pm on Saturdays and 10am-12.30pm on Sundays. Ultimately, this provision was set at 9.30am-12.30pm for both days. At weekends, attendance of appointments was lowest in the final slots of the day, provided at 12pm and 12.15pm (Figure 9). As previously noted, the rate of attendance tended to be lower at weekends.

Figure 8 SWEAP weekday activity by day of week and time

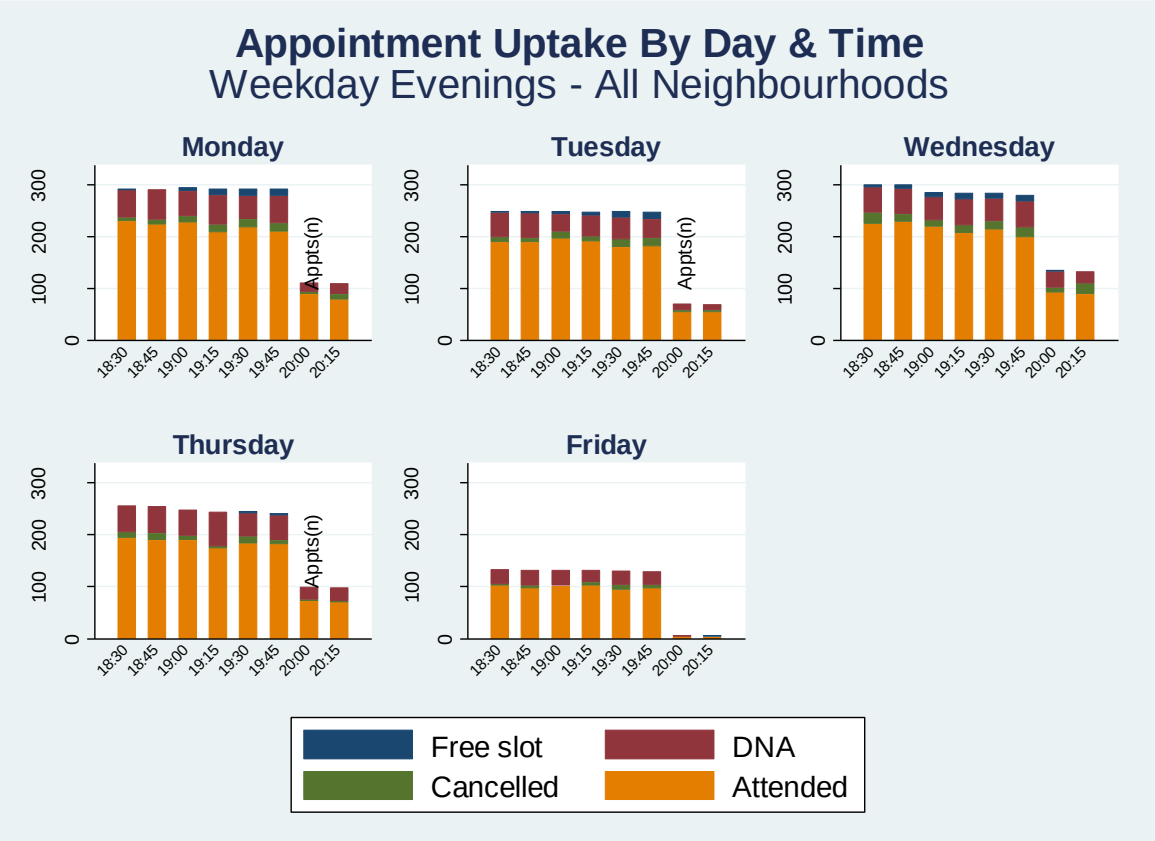
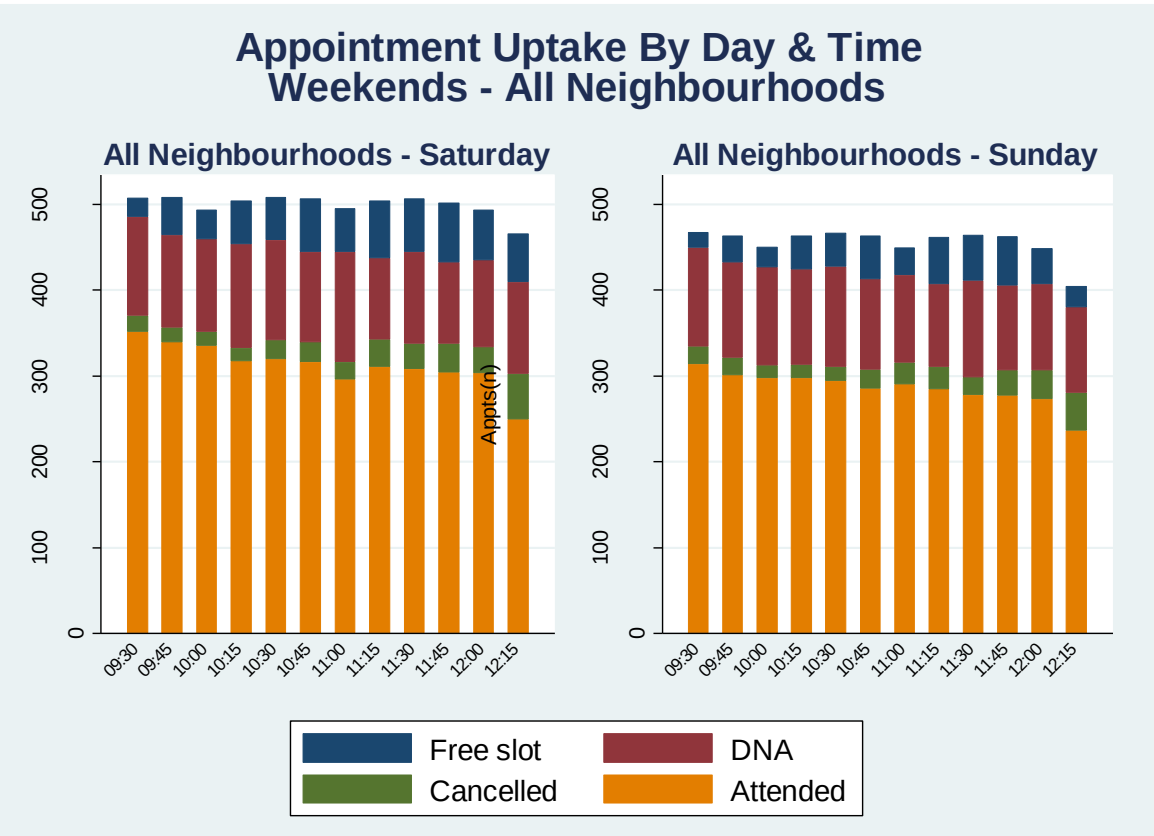


Figure 9 SWEAP weekend activity by day of week and time

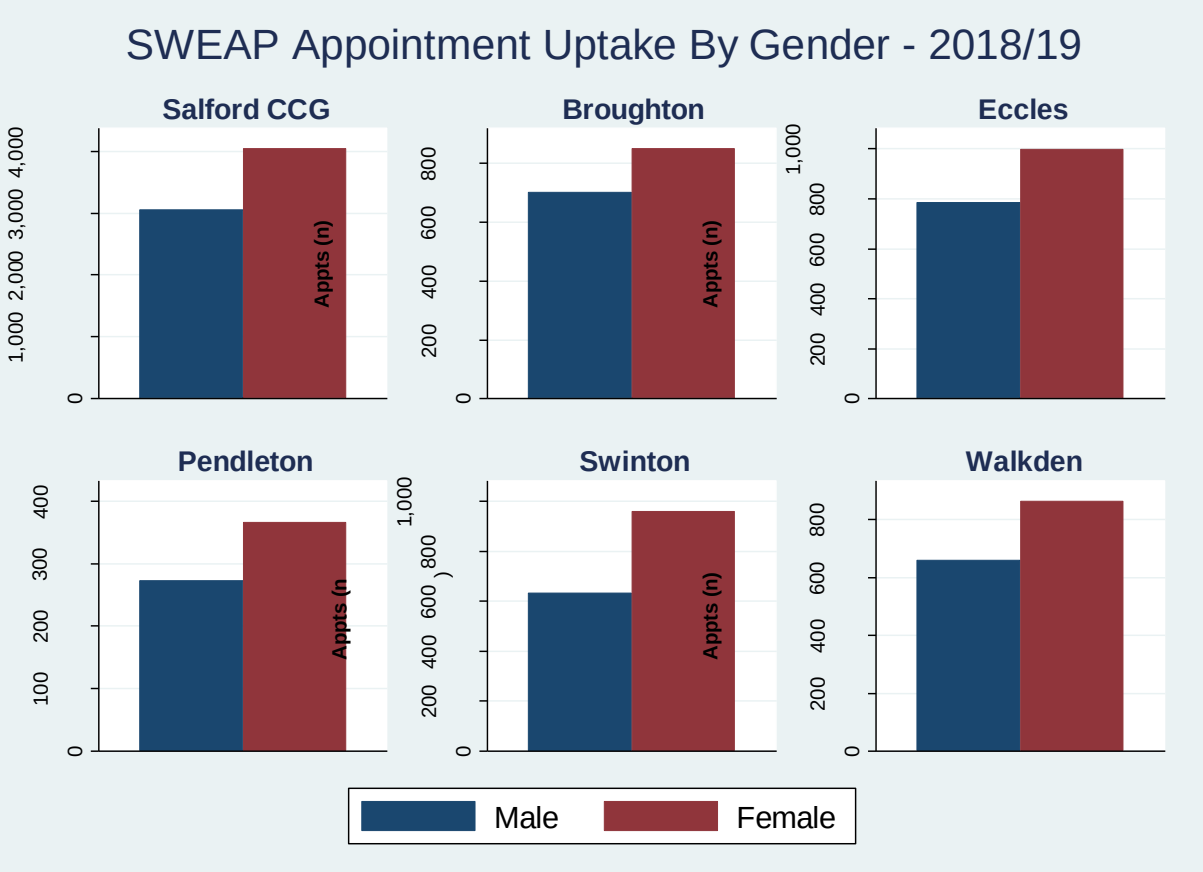


5.3.6. Uptake by gender and age

Using aggregate data provided by Salford, estimates of the number of appointments by sex and age band were derived. The supplied dataset contained the percentage of appointments attended by each age and gender category, which were then applied to the number of attendances recorded for each month. Data on ethnicity were not sufficiently complete to analyse, with the most complete neighbourhood/month combination having 67.1% missing and the least complete 100.00% missing. Analysis was completed for NHS Salford CCG as a whole, and also by neighbourhood.

Across NHS Salford CCG and in each of the five neighbourhoods, female attendance exceeded that of males (Figure 10). Overall, in 2018/19, 56.96% (n=4037) appointments were attended by women, and 43.04% (n=3050) were attended by men.[9]

Figure 10 SWEAP attendance by gender - 2018/19

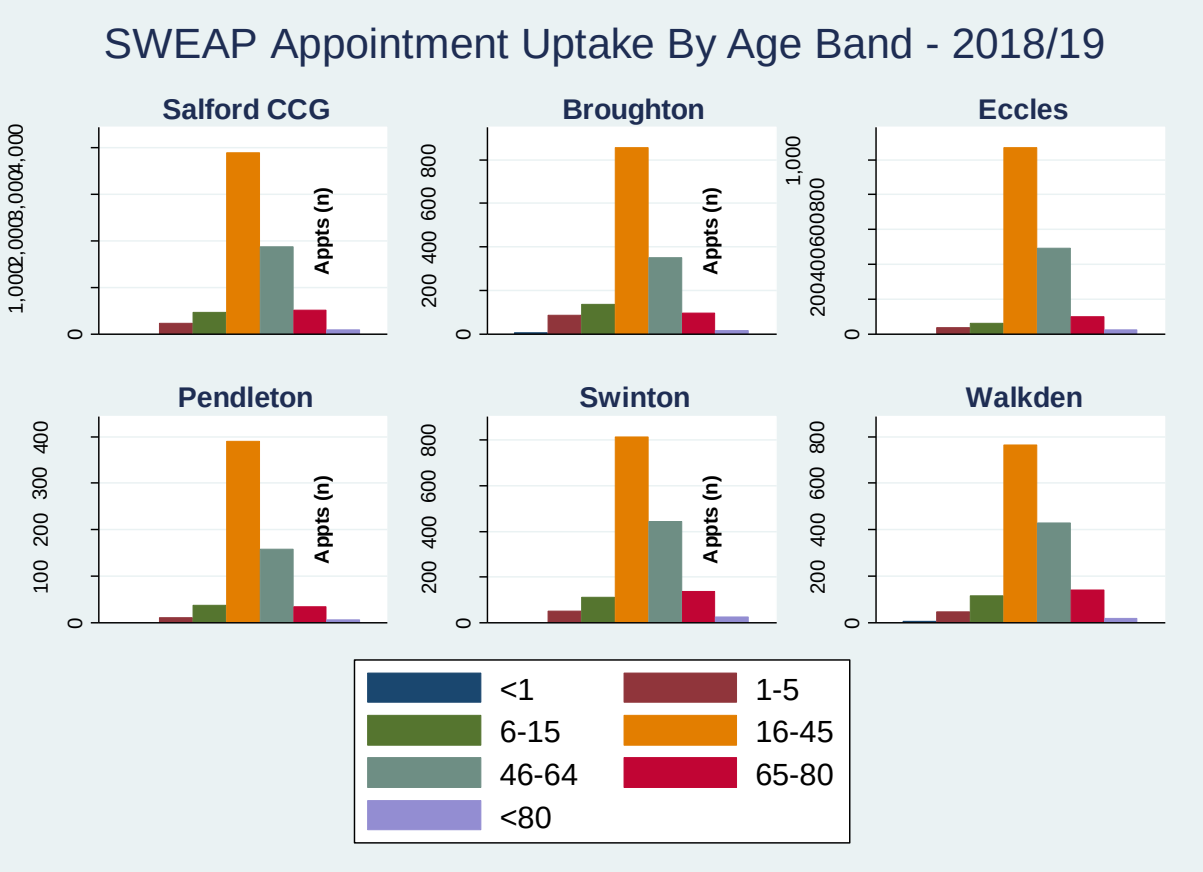


Attendance was dominated by the 16-45 years age group, followed by 46-64 years (Figure 11). It should be noted that although this corresponds with the two largest age groups (in years), the ranking of age band would not alter if presented as an

[9] Of the 7,179 appointments that were attended in 2018/19, there were 7,087 (98.72%) with a recorded gender (4,037 women (56.23%) and 3,050 men (42.49%)) and 92 (1.28%) with missing gender.

average per single year (i.e., total appointments in age band/number of years included in age band). 54.20% (n=3891) of attendances in 2018/19 were from the 16-45 years age group, and 26.15% (n=1878) from the 46-64 years age group. Combined these correspond to the working age population. Usage for children aged 5 and under was lowest overall.

Figure 11 SWEAP attendance by age band - 2018/19



5.3.7. Uptake by practice

Figures 12 to 16 shows uptake of SWEAP appointments by medical practice across the duration of SWEAP, presented by neighbourhood. SPCT could not be included in this analysis as the three sites under this practice name each operate in a different neighbourhood but are all attributable to Eccles in our dataset. In most areas, one or two practices booked a large proportion of appointments, with the remainder shared out between other practices. Only Swinton saw a different pattern, with three of the four practices in that neighbourhood dominating the appointments, with the remaining practice (The Sides) being a regular user of SWEAP, with 12.36% of all Swinton bookings.

Monton Medical Practice had the largest overall proportion of appointments for their neighbourhood with 44.96% of all appointments for Eccles and Irlam (excluding appointments for SPCT, which could not be included in this analysis). The highest

rate of appointments was observed for The Lakes in Swinton (165.27/1,000 patients).

Figure 12 Appointments booked by practice: Broughton

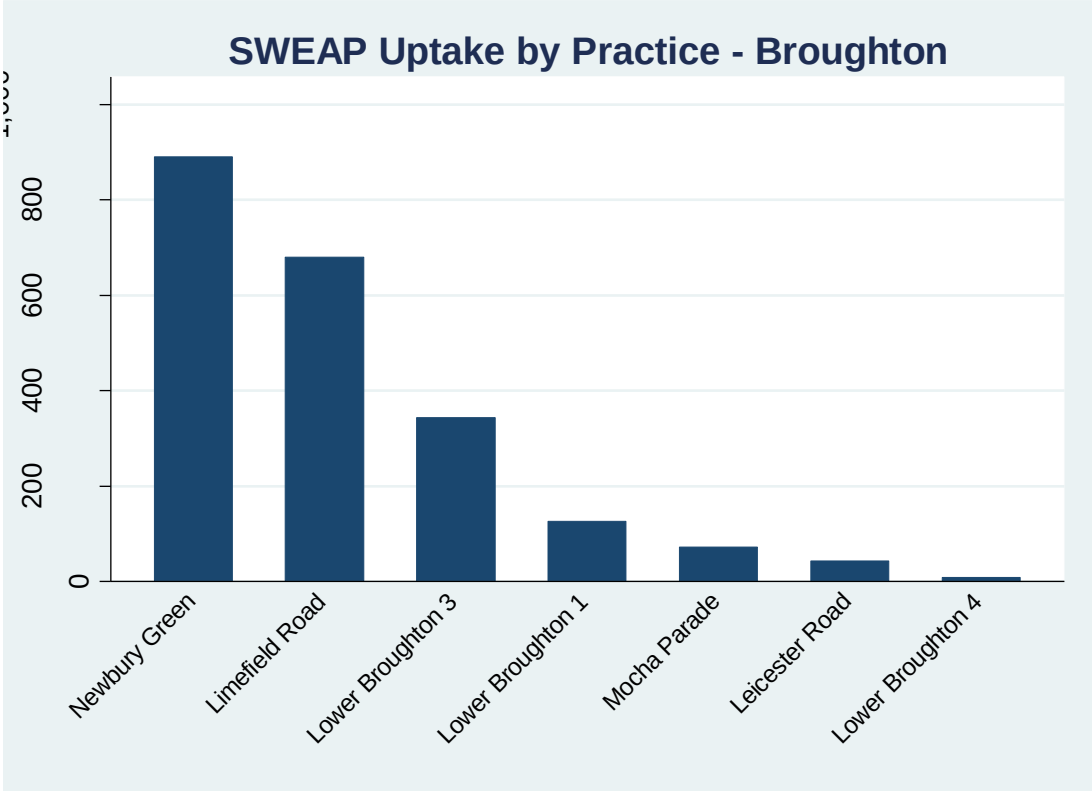


Figure 13 Appointments booked by practice: Eccles

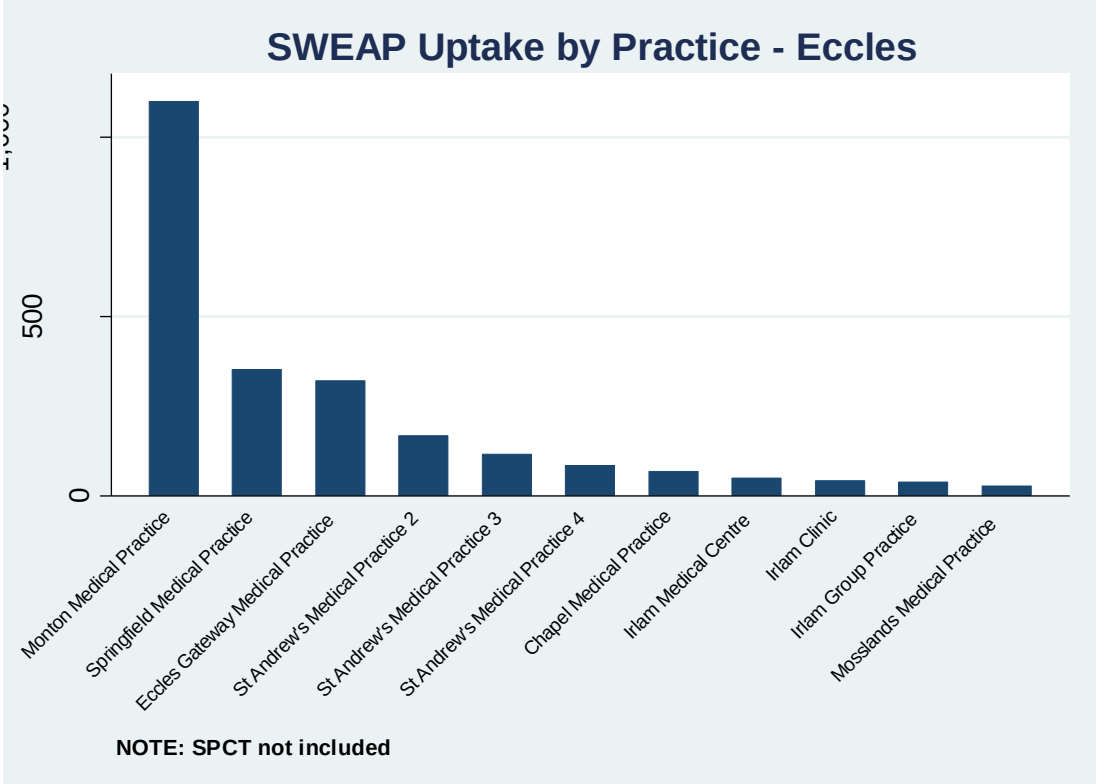


Figure 14 Appointments booked by practice: Pendleton

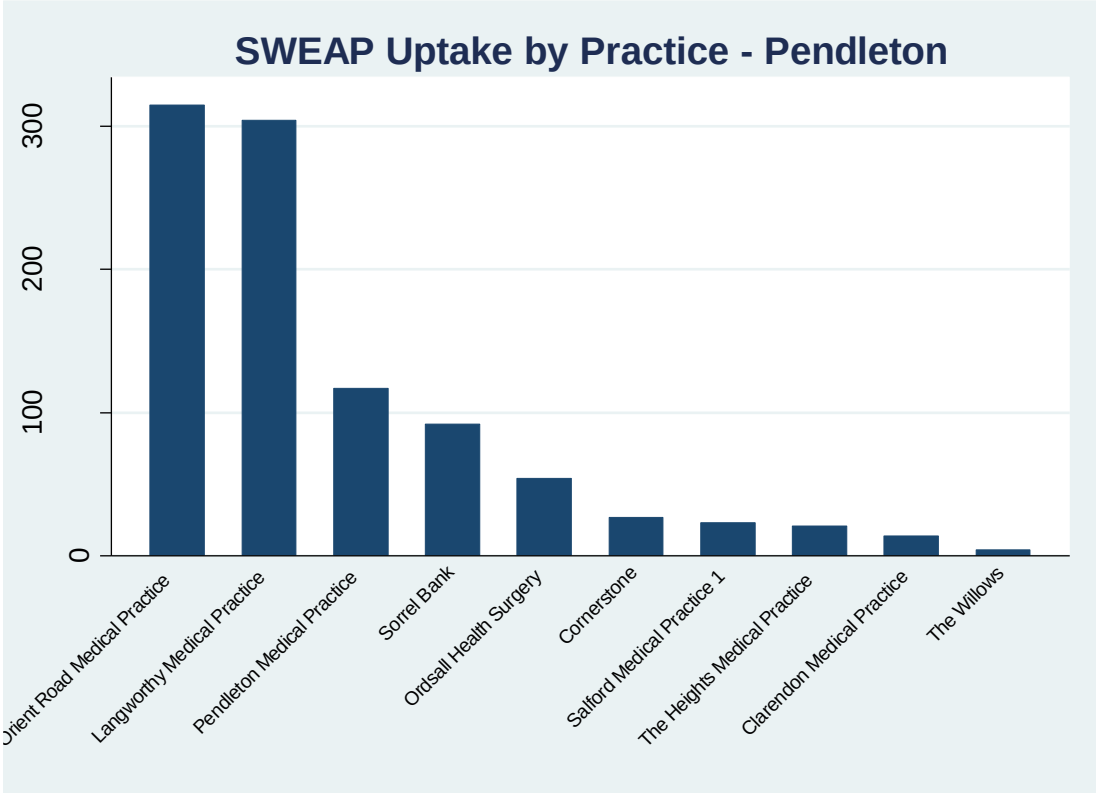


Figure 15 Appointments booked by practice: Swinton

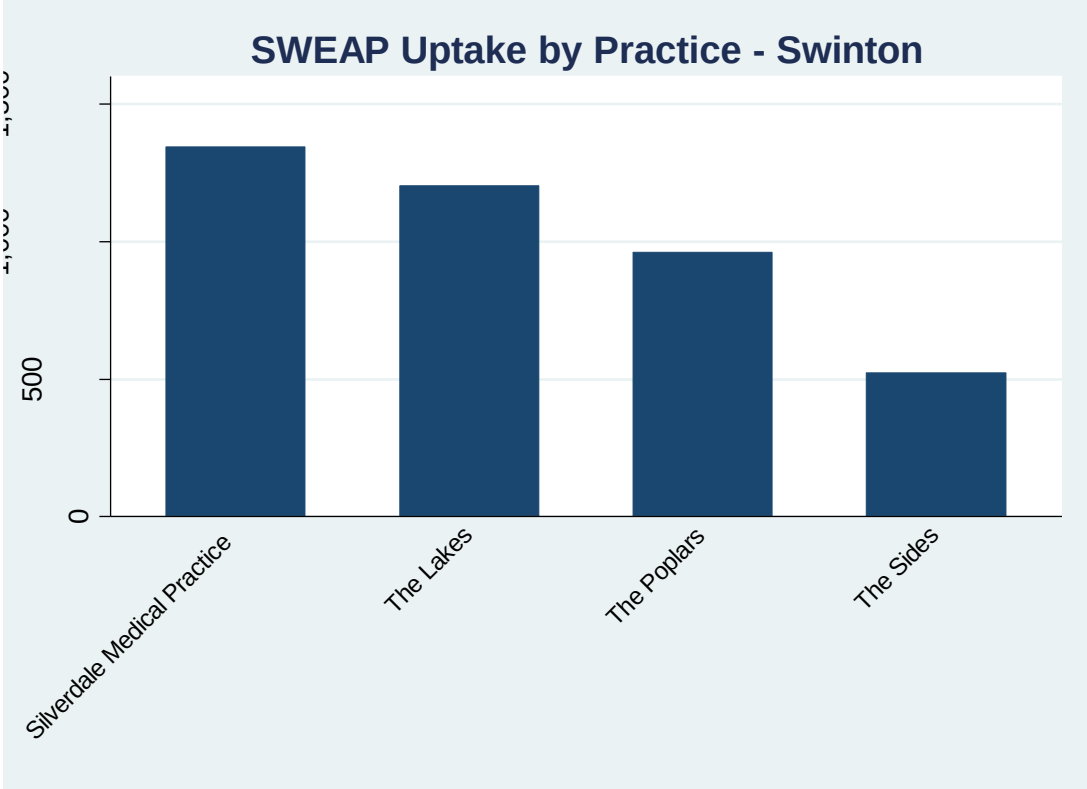
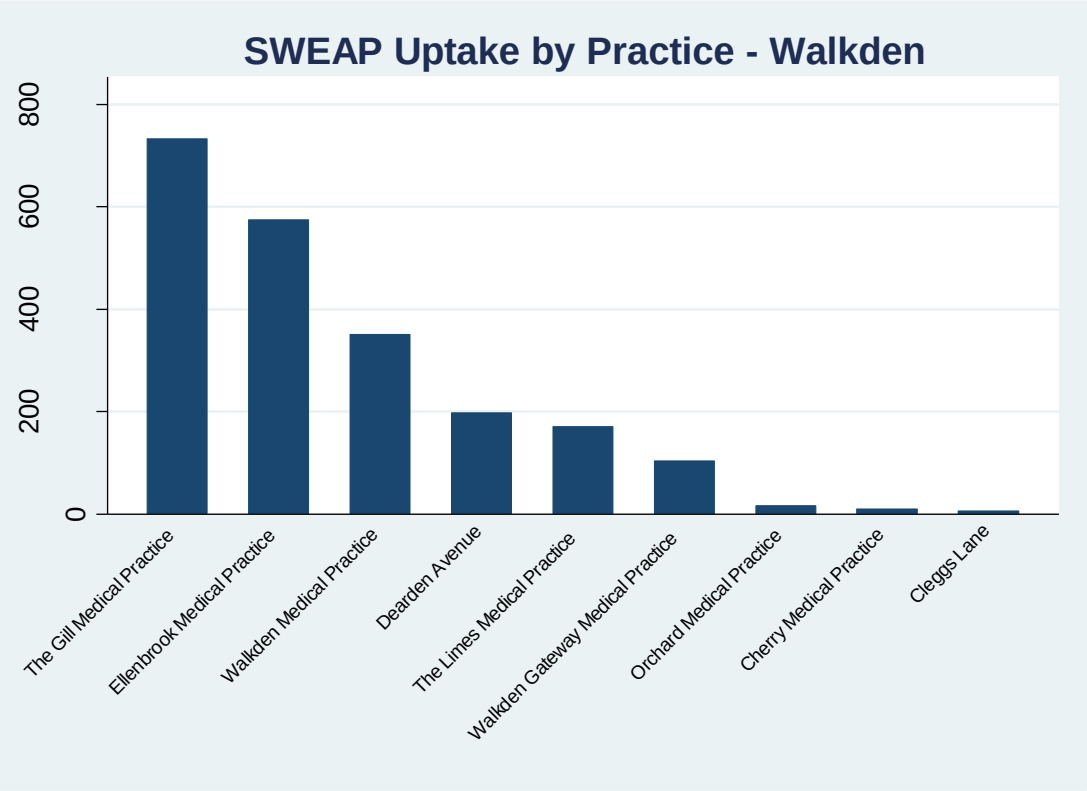


Figure 16 Appointments booked by practice: Walkden



5.3.8. Days to wait

Table 10 shows the mean number of days to wait for NHS Salford CCG and each of the neighbourhoods by financial year, plus the proportion of appointments that were booked for the same day. These estimates measure the length of time from the booking of the appointment to when the appointment was due to take place, irrespective of whether the appointment was attended, DNA or cancelled. Only those appointments not booked at all were excluded.

Overall, patients were waiting a mean of 2.96 days for a SWEAP appointment, with 10.29% of all appointments booked being same-day. The longest mean wait time was 3.18 days in Walkden, with Pendleton having the lowest at 2.31 days. Broughton had the highest proportion of same-day appointments (17.17%), whilst the lowest was observed for Swinton (7.67%).

Given that in 2019/20, 50% of Monday bookings were reserved for same-day appointments it might have been expected that mean days to wait would have reduced and the proportion of same-day appointments increased. For mean days to wait, the opposite is true, increasing year on year for all neighbourhoods and NHS Salford CCG as a whole. At the start of SWEAP, patients across Salford were waiting an average of 2.48 days for a SWEAP appointment 2017/18, rising to 2.86 days in 2018/19 and 3.69 for the first quarter of 2019/20. For the proportion of same

day appointments, there is no clear pattern. The proportion of same-day appointments declined year on year in Broughton and Pendleton, declined then increased in Eccles and Swinton, and increased in Walkden.

Table 10 Mean days to wait (DTW) for SWEAP appointment and % same-day appointments, by financial year and neighbourhood

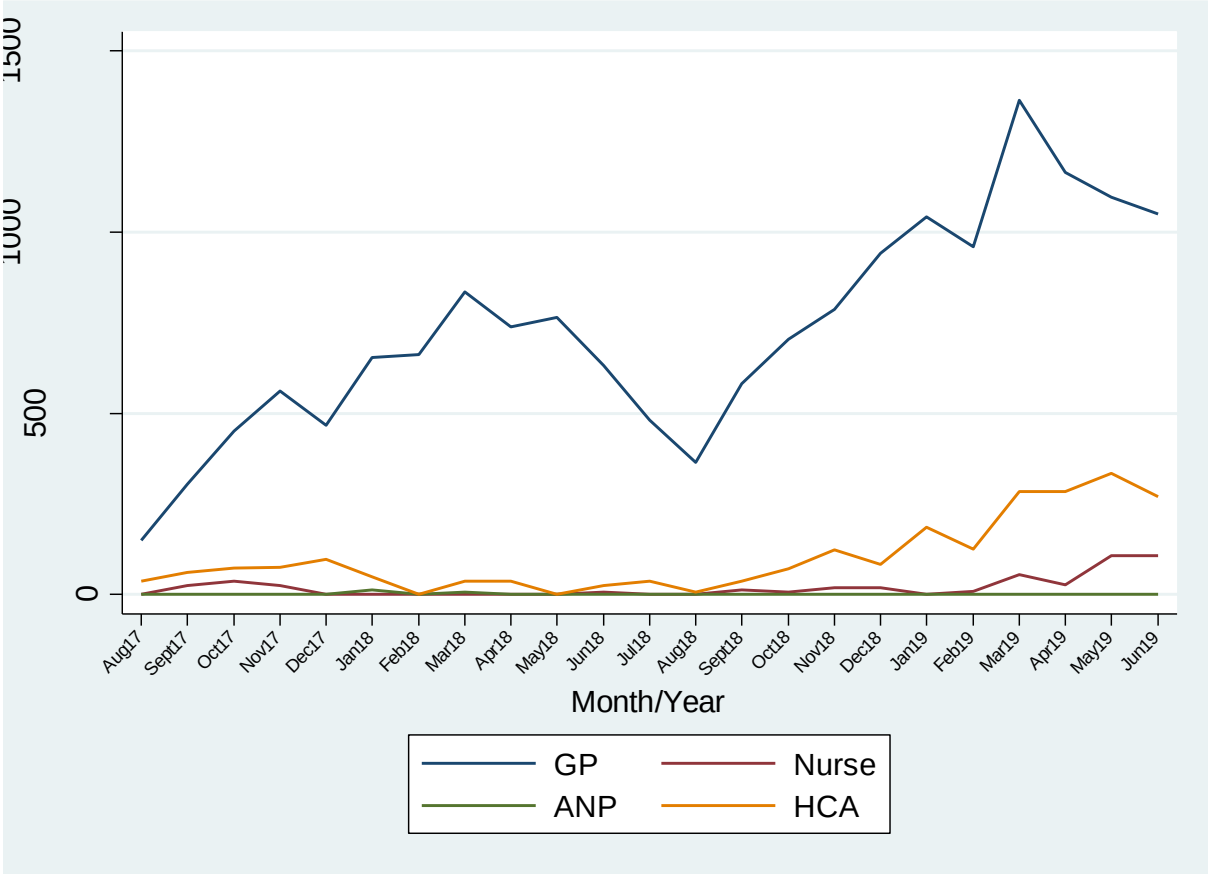
	2017/18		2018/19		2019/20		All	
Area	**DTW (mean)**	**Same-day (%)**	**DTW (mean)**	**Same-day (%)**	**DTW (mean)**	**Same-day (%)**	**DTW (mean)**	**Same-day (%)**
NHS Salford CCG	2.48	13.08	2.86	9.49	3.69	9.52	**2.96**	**10.29**
Broughton	1.16	36.29	2.69	14.57	4.04	13.71	**2.83**	**17.17**
Eccles	2.57	11.36	3.21	6.72	3.47	7.64	**3.08**	**8.28**
Pendleton	N/A	N/A	2.15	12.76	2.87	8.31	**2.31**	**11.89**
Swinton	2.72	8.98	2.92	6.66	3.74	7.11	**2.97**	**7.67**
Walkden	N/A	N/A	2.86	9.00	3.80	10.01	**3.18**	**9.32**

5.3.9. Provision by clinician type

Our dataset concerned four different types of clinician, identified as 'book owners.' These were general practitioners (GPs), nurses, advanced nurse practitioners (ANPs) and healthcare assistants (HCAs). When a clinician takes a SWEAP shift, a full set of appointments is made available for that clinician for that session, so the estimates included here are for all appointment outcomes (including DNA, cancelled and never booked). Figure 17 shows available SWEAP appointments by clinician type, clearly demonstrating that GP appointments have dominated throughout the pilot. Overall, 16,755 appointments were allocated to GPs, representing 85.74% of all appointments. Of the remainder, HCA appointments were the next most frequent (n=2,318, 11.86%), followed by nurses (n=450, 2.30%) then ANPs (n=18, 0.08%).[10] The number of HCA appointments has increased in 2019, with around 300 per month now being provided, compared to consistently fewer than 50 up to September 2018.

[10] Note the 18 ANP appointments conflicts with qualitative data suggesting no ANP appointments were provided.

Figure 17 SWEAP appointments by clinician type



5.3.10. Use of neighbourhood hubs

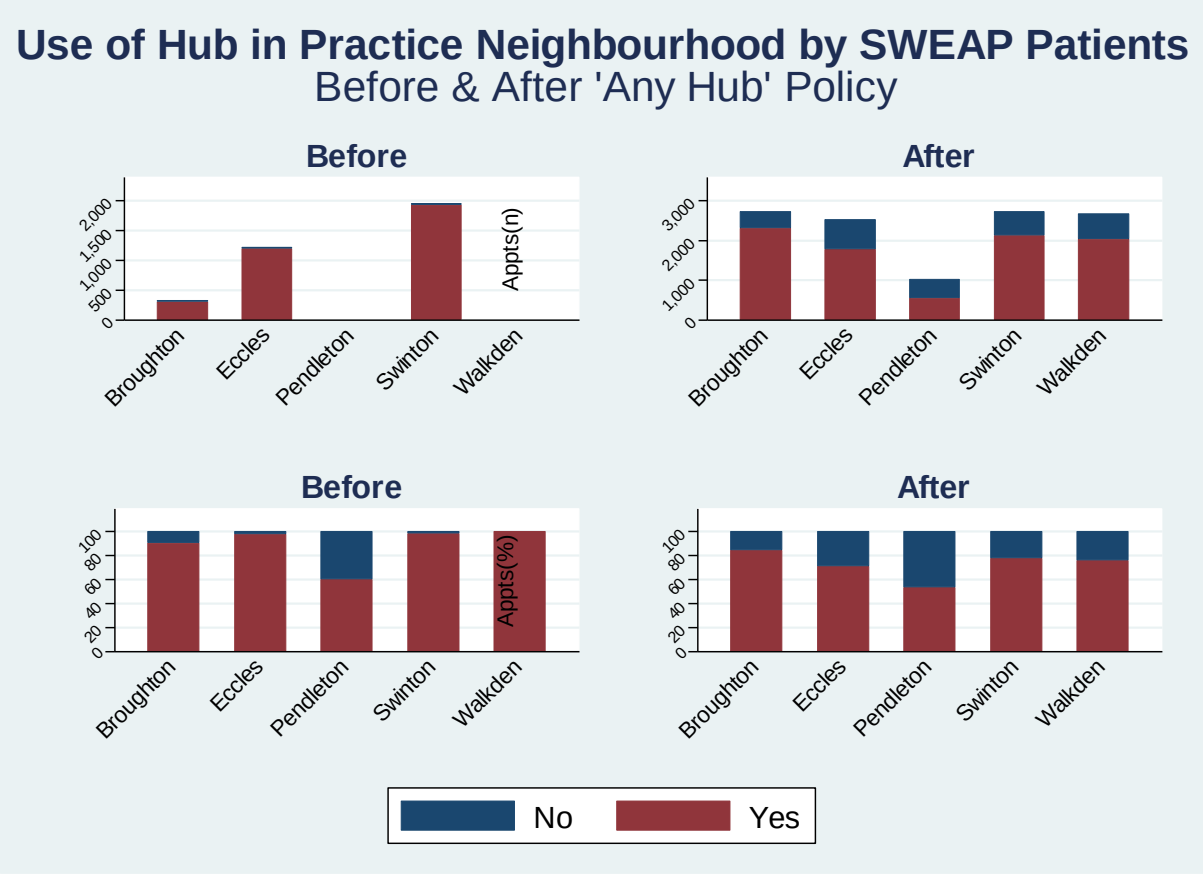
At inception, patients booking SWEAP appointments were generally only offered access to appointments at the neighbourhood hub that matched the neighbourhood of their usual practice (i.e., if the patient was registered at an Eccles and Irlam practice, they would have been offered appointments only at the Eccles Gateway). However, in March 2018, a policy change led to patients being able to book appointments at any neighbourhood hub.

As previously mentioned, three practices in our dataset are attributed to Salford Primary Care Together (SPCT). SPCT is a GP federation and the three practices included operate over three different neighbourhoods. Therefore, in assessing those attending the hub in the same neighbourhood as their regular practice, SPCT patients were excluded as we couldn't ascertain which their home neighbourhood would be.

Figure 18 gives the volume and percentage of appointments by residents in the neighbourhood that were within the home neighbourhood and outside of the neighbourhood. As expected, use of hubs outside of home neighbourhood was low prior to the introduction of the 'any hub' policy. Following the policy being implemented, patients have been using hubs outside of their neighbourhood, most

notably in Pendleton where provision has been lowest overall. Patients in Broughton were least likely to attend a hub outside of their neighbourhood.

Figure 18 Patient use of neighbourhood hubs before and after the introduction of the policy to use any Salford neighbourhood hub



5.3.11. Cost of SWEAP

Table 11 shows the cost per appointment for SWEAP by financial year, which includes all costs of running the service. The intended cost per appointment was £27.40, which was exceeded for each financial year. In 2017/18, the cost per appointment was £74.91, rising to £123.65 in 2018/19. Data for the first quarter of 2019/20 suggests SWEAP is running at its lowest cost per appointment to date at £61.24 – which is still more than twice the anticipated amount.

Table 11 NHS Salford CCG cost per appointment provided

	Commissioned annual activity	2017/18 activity delivered	2018/19 activity delivered	2019/20 activity delivered*
Activity	47,320	4,610	10,487	4,444
SPCT Cost	£1,296,724	£354,379	£1,296,724	£272,150
Cost per appointment	£27.40	£74.91	£123.65	£61.24

*Period April to June

5.4. Discussion

Since its launch in August 2017, the SWEAP service has expanded year on year, with 10,487 appointments made available for financial year 2018/19, and 4,444 available in the first quarter of 2019/20 alone. There were no striking differences in rates of attendance across the year, suggesting that time of year did not impact likelihood to book and/or attend an appointment. All hubs are running SWEAP clinics on at least some evenings and weekends, although a full, consistent service is yet to be achieved. Overall, 67.61% of appointments were attended, with the most common cause of an appointment not going ahead being the patient failing to attend (DNA), which occurred 20.85% of the time.[11] Cancelled appointments as a proportion of all appointments fell from 5.77% in 2017/18 to 3.56% for 2019/20 so far. This reduction could be linked to the resolution of some of the key issues leading to cancelled appointments, such as workforce availability and IT.

This increase in provision has not been constant, with a fall in summer 2018 in available sessions, which has been attributed to a lack of available workforce. Data for summer 2019 were not available at the time of reporting to assess whether this seasonal fluctuation was replicated. If this does occur, strategies to plan for the summer workforce may be necessary for SWEAP beyond the pilot. However, since March 2019 SWEAP has offered more appointments per month than at any point since its inception. This expansion of services has not been associated with an increase in DNA rates, nor those appointments not booked at all. Attendance rates have remained relatively constant even as provision has grown. This suggests that the service has not yet reached saturation point in terms of patient demand, as in that circumstance we would expect the rate of appointments not booked to increase.

Given that the sessions were longer, it is not surprising that the largest number of appointments were made available on Saturdays and Sundays. Most notable here is the low number of sessions running on Fridays. There is some suggestion arising from the qualitative analysis that for an area such as Broughton with a large Jewish population, Friday evening and Saturday daytime clinics are in less demand as they correspond with the Sabbath, meaning patients are not available to attend. However, lower Friday provision is consistent across all areas and this might be a reflection of the clinician-led approach to allocating sessions, with fewer clinicians signing up to provide these sessions. Future work would investigate if this is the case, and whether it being the end of the working week makes providing these sessions less

[11] The DNA rate is larger than the 10-14% and 10-17% rates observed in other pilots:
NIHR CLAHRC Greater Manchester. NHS Greater Manchester Primary Care Demonstrators Evaluation. [cited 2015 June]. Available from: https://www.research.manchester.ac.uk/portal/files/32297227/FULL_TEXT.PDF
NIHR CLAHRC Greater Manchester. GM Primary Care 7-Day Access Evaluation. [cited 2017 March]. Available from: https://www.clahrc-gm.nihr.ac.uk/media/Resources/OHC/GM-Primary-Care-7-day-access-report-evaluation.pdf

appealing to clinicians. If staffing Friday sessions is especially problematic, there might be an opportunity to increase provision across other days instead.

SWEAP sessions become available when a clinician accesses the system and takes the shift. The clinician is able to pick the hub and session most suitable for them. This means that SWEAP sessions are not provided primarily through demand, but clinician availability and preferred location (hub). SWEAP sessions, therefore, may not be allocated on a demand basis.

Another way in which SWEAP is not currently demand-led is that staffing is not dictated by potential seasonal pressures (e.g. 'flu season'). Some dedicated smear clinics are now in operation, but on the whole SWEAP sessions are general in nature.

We found that appointments were more likely to not be booked at all at weekends (10.47% of all Saturday appointments, and 8.48% of Sunday appointments), particularly the two slots at 12pm and 12.15pm. Given that earlier slots were better attended, one recommendation is to trial an amended weekend session time of 9am-12pm (opening and closing half an hour earlier) to see if this leads to more completed appointments. Conversely, the addition of later timeslots during weekdays did not lead to an increase in those not booking or attending appointments, and from our qualitative analysis has been associated with an increase in the available clinical workforce, as longer sessions provide greater financial incentive.

Higher DNA rates were observed at weekends compared to weekdays. One possible reason for this might be that patients need to contact their practice or the SWEAP clinic to cancel an appointment and so can only do this during opening hours. If it were possible for patients to book and cancel SWEAP appointments online, this would improve access to booking – and cancelling, where necessary - appointments outside of surgery hours, as well as reduce the impact on surgery staff who have SWEAP bookings added to their regular duties. Similarly, if SWEAP patients were to receive a text message reminder of their appointment – as per their core hours practice – this may positively impact the rates of those not attending.

One aim of extended access is to provide a wider choice for patients who may be less able to make core hours appointments. Although we have no measures available of employment status, we can state that attendance was concentrated around the population of working age. Uptake by sex is relatively equitable, with females more likely to attend overall, but male engagement still high, although neither sex were singled out to be targeted by this pilot.

The broad age groupings and inability to assess use by age and gender combined restricts comparisons to other data sources of registered patients and core hour

users in survey data. We compared as close as possible. In comparison to registered patients at April 2018:

- The under 15 age group make up 18.64% of registered patients and under 16s make up 10.10% of appointment users
- The age group 15-64 make up 67.84% of registered patients and 16-64 age group make up 81.38% of appointment users
- The 65+ age group make up 13.52% of registered patients and 65+ make up 8.52% of appointment users
- Males make up 50.97% of registered patients and 43.04% of appointment users

In comparison to survey respondents stating having had an appointment in core hours in the GP Patient Survey (2018):

- 16-64 age group make up 80.46% of users aged 16+ and 90.53% of appointment users

These comparisons suggest SWEAP users are over-representative of age group 16-64 and under-representative of ages less than 16 and greater than 64 both at a registered population level, and in comparison to service users aged 16+. The SWEAP attendees also appear to over-represent females. Similar findings have been observed in pilots both within Greater Manchester and England.[12]

Practices are engaging with SWEAP at differing rates, with some practices routinely booking onto the service compared to others using SWEAP rarely. In many cases, the practices with the highest participation rates were also those with larger list sizes,

[12] NIHR CLAHRC Greater Manchester. NHS Greater Manchester Primary Care Demonstrators Evaluation. [cited 2015 June]. Available from: https://www.research.manchester.ac.uk/portal/files/32297227/FULL_TEXT.PDF
NIHR CLAHRC Greater Manchester. GM Primary Care 7-Day Access Evaluation. [cited 2017 March]. Available from: https://www.clahrc-gm.nihr.ac.uk/media/Resources/OHC/GM-Primary-Care-7-day-access-report-evaluation.pdf
MacDonald, SQW. Prime Minister's Challenge Fund: Improving Access to General Practice: Second Evaluation Report to September 2015. [cited 2016]. Available from: https://www.england.nhs.uk/wp-content/uploads/2016/10/gp-access-fund-nat-eval-wave1-sml.pdf
Windrum P, Guinery J, Siebert P, et al. CHILL Evaluation of 7-Day GP Access. [cited 2017 Jan 1]. Available from: https://www.nottingham.ac.uk/business/businesscentres/chill/documents/chill-7-day-gp-access-report.pdf
Sheffield:
Kelly SJ, Piercy H, Ibbotson R, et al. Who attends out-of-hours general practice appointments? Analysis of a patient cohort accessing new out-of-hours units. *BMJ Open* 2018. doi:10.1136/bmjopen-2017-020308
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. https://bmjopen.bmj.com/content/9/9/e028138.info
Nuffield Trust, Improving access out of hours. Evaluation of extended-hours primary care access hubs. [cited April 2019]. Available from: https://www.nuffieldtrust.org.uk/files/2019-05/bhr3-report-b1881-rgb-3.pdf

but this was not consistently so. Engagement with SWEAP at the practice level will be determined by a variety of influences, such as attitudes towards extended access, patient feedback on the service, staff willingness to add SWEAP administration to their regular duties, current list size and waiting times for core hours appointments. Reasons underlying the varying levels of engagement with SWEAP form part of the qualitative analysis in Section 4.

However, in considering the future of extended access, consideration should be given to why practices are engaging with the pilot differentially. If the primary aim of extended access is to provide a wider choice of appointment times for patients then it may be appropriate to 'cap' the proportion of appointments that can be used by a practice, based on patient list size. If reducing wait times for appointments and helping to ameliorate the burden on core hours services is the primary aim, then the current situation of certain practices dominating appointments may be appropriate. In either case, it might be beneficial to consult with practices over their current use of SWEAP (whether high, medium or low) and the reasons for this.

There were 38.47 appointments provided per 1,000 registered patients in Salford over financial year 2018/19. This was lower than that observed in the 2016 pilot in Heywood, Middleton and Rochdale (HMR) (143.77 per 1,000) but greater than that seen in Bolton (23.23), Oldham (14.63), Tameside and Glossop (22.88), and Trafford (11.96).[13] The difference is likely to be the result of the type of provision in localities. Several localities in the 7-day access evaluation provided extended access appointments at weekends (Bolton) or on Saturdays only (Trafford). The volume of hubs also differs, while Salford has 5 hubs, HMR had 4, Tameside and Glossop 3, and Bolton, Oldham and Trafford 2.

Uptake in SWEAP differs from the five localities. 88.46% of SWEAP appointments were booked which is greater than all localities (56.37%-79.70%) aside from Trafford for which rates were similar (88.99%). However, SWEAP has a greater rate of appointments booked and not attended (20.85%) than the five localities which brings Salford more in line with the other localities for the proportion of appointments booked and used (67.61% in Salford; 66.05% in HMR and Tameside and Glossop; 74.19% in Trafford; and 50.81% in Oldham). Variations in provision may explain some of these differences. SWEAP is largely delivered by GPs while Bolton, HMR, and Trafford had higher proportions of nurse appointments. Bolton and Trafford offered only a pre-bookable service with no same-day appointments. Several localities had direct booking possible (HMR and Oldham) whilst some (Bolton, Tameside and Glossop, and Trafford) had only general practice referrals like the SWEAP service. The location of the service in the localities was typically at specific practices unlike SWEAP.

[13] NIHR CLAHRC Greater Manchester. GM Primary Care 7-Day Access Evaluation. [cited 2017 March]. Available from: https://www.clahrc-gm.nihr.ac.uk/media/Resources/OHC/GM-Primary-Care-7-day-access-report-evaluation.pdf

The demographics of patients using the SWEAP service echos the findings from the 7-day access evaluation localities with females and working age groups dominating use. While the location of hubs differs in SWEAP to the other localities, a similar dominance of use of a handful of practices was present in both evaluations.

SWEAP currently exceeds the prescribed cost per appointment by more than two times. This could be related to the high proportion of appointments being provided with GPs over other clinicians, which will impact on staffing costs. SWEAP is also providing approximately ¼ of the 47,320 appointments planned for as part of this cost (using the commissioned provision example in Table 1). Given rates of attendance and the presence of appointments not being booked, arguably the prescribed number of appointments is too high. Therefore future SWEAP provision may consider how best to offer the optimal number of appointments at a reduced cost overall. Having clinics running on all evenings and weekend days outlined in the pilot proposal would ensure that the money spent on hiring hub space is utilised efficiently, and recruitment of more non-GP clinicians to work on the service would reduce staffing costs.

5.4.1. Strengths and limitations

The appointment analysis presented here is a comprehensive summary of service use for SWEAP since its launch in August 2017. We were able to include all appointments that went live on the system to provide a detailed analysis – for Salford as a whole and by area – of how these slots were used. Our analyses could pinpoint possible days and times that are currently underserved by SWEAP, and those which may be superfluous. We have been able to assess how the service has expanded and how attendance patterns have changed amidst this expansion. We have also been able to derive estimates of cost per appointment to assess the value for money of the service.

However, limitations remain. Our dataset did not include any identifiable information about the individual patient, such as their age, sex or ethnicity. The analysis of age and sex presented above was derived from an additional dataset supplied by NHS Salford CCG, providing the proportion of males/females attending each neighbourhood hub, and also by large age band. These proportions were applied to the provision in 2018/19 to give estimates of the numbers attending in each age and sex category, by month and for the year as a whole.

To address current demand, broad details of the nature of appointments would be beneficial in terms of future recruitment (do SWEAP appointments require a GP, or could many appointments be fulfilled by a nurse alone?), and for deciding whether to run dedicated clinics for high-demand appointment types (e.g., smear clinics). If the service is currently being underused by certain demographic groups, are there actions that could be taken to address this? For example, if certain BaME groups are

not currently using SWEAP, this might be attributable to language barriers, or patients not knowing that they could have an interpreter present at their SWEAP appointment. Whilst this is speculative, more details about who uses SWEAP currently would be beneficial for future service planning. The clinical audit presented elsewhere in this report provides some detail on who is attending and for what, with the addition of clinical judgement on the utility of the appointment. A comprehensive summary of the reasons for attending SWEAP appointments – particularly if compared to core hours practice use - would enhance our analyses here greatly.

Another element that we could not assess with the data provided was the difference between the appointments offered and the appointments that should have been offered were the service running at full capacity. SWEAP is not limited to one clinician per hub per session, so a theoretical maximum number of appointments would need to account for how many clinicians per hub per session were desirable.

This analysis cannot, in many cases, assume causality. For example, we cannot say that fewer appointments were available in summer 2018 due to clinicians being on holiday. Similarly we cannot give reasons why patients in Ordsall and Claremont were more likely to use a hub outside of their neighbourhood than any other area, but can highlight the relatively low number of available sessions at the Pendleton Gateway as a *possible* source. This does not apply to the analysis of the 'any hub' policy, as we have the data to assess the rates of patients attending their own neighbourhood hub before and after 1st April 2018, when the policy came into effect. At the practice level we cannot assume reasons for high and low engagement.

6. SWEAP Patient Survey Data Analysis

6.1. Data collection

As part of their own service evaluation, SPCT developed a short questionnaire for patients to complete relating to their experiences of attending a SWEAP appointment. These data were shared with the CLAHRC GM study team as a final dataset. CLAHRC GM had no influence over survey design or data collection and can only offer a commentary on these results.

The survey relates to patients attending SWEAP sessions between December 2017 and May 2019. Surveys were handed out after sessions to patients in the hub they were attending. Analysis of response numbers per month were not possible due to some issues around the 'date and time of visit' variable. Data were entered incorrectly for many records, for example in the format '11/28/0018.' Cross-referencing these with the date of data entry did not resolve this issue.

6.2. Demographics

These figures relate to participants of the survey and therefore do not necessarily correspond with those using the SWEAP service overall, as we do not have a measure of those who chose not to participate in the survey. Where possible, these estimates were compared with observed appointment activity from the SWEAP dataset for financial year 2018/19 (see Section 5). A total of 1,626 responses were received. 1,552 responses had a valid age recorded, of which 76% (n=1179) were under 55 years of age, with the 25-34 years being the age band with the largest number of respondents (24%, n=367) (Figure 19) .

60% (n=919) of respondents were female, with the remaining 40% (n=607) being male, higher female representation than for 2018/19 SWEAP appointments overall (Table 12). Respondents were predominantly white British (88%, n=1369/1550), with the remainder from either other white (3%, n=58) or black and minority ethnic (BaME, 8%, n=133) backgrounds. Respondents varied compared to those identified in the SWEAP appointment data with regards to gender (survey respondents had a greater proportion female) but were fairly similar in age (80.35% aged 16-64 in activity data, 84.22% survey).

Figure 19 Patient (n=1552) satisfaction survey participants by age band

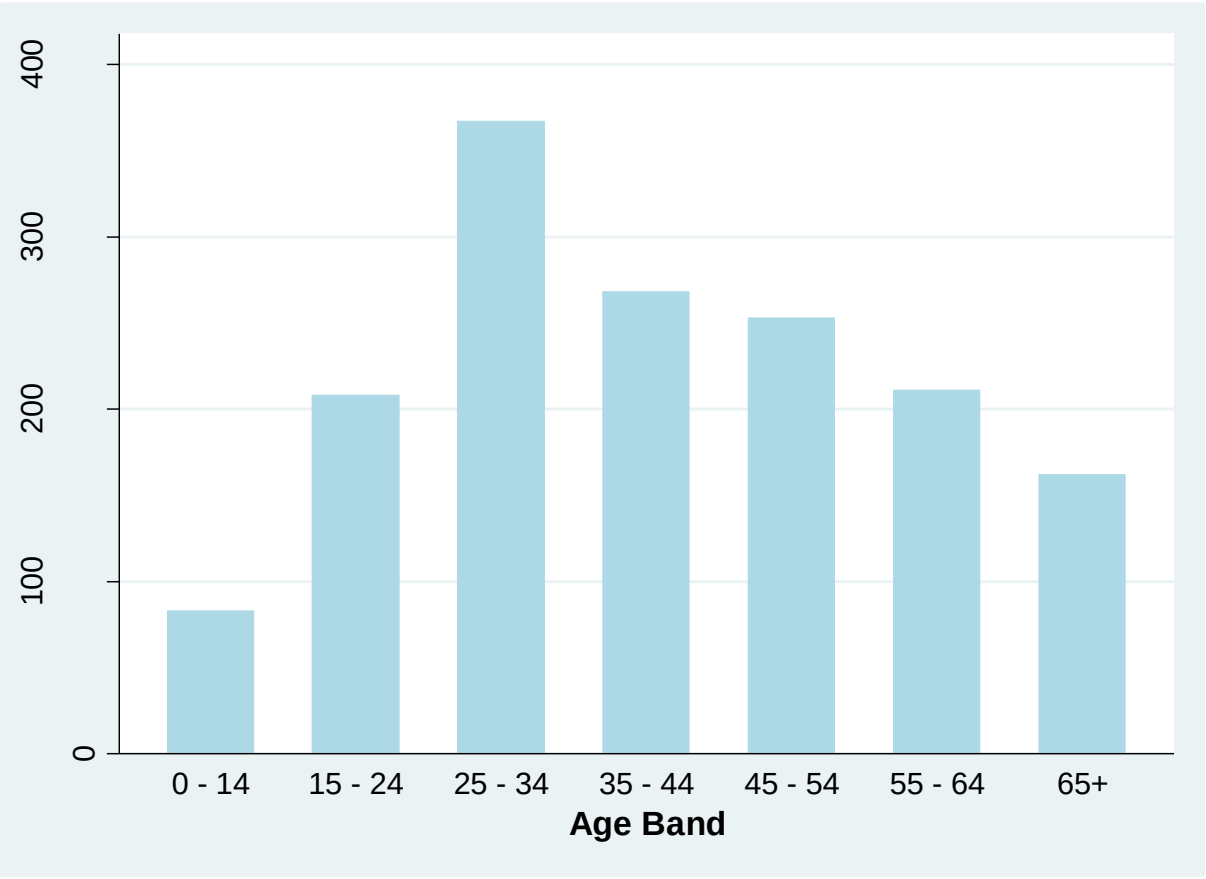
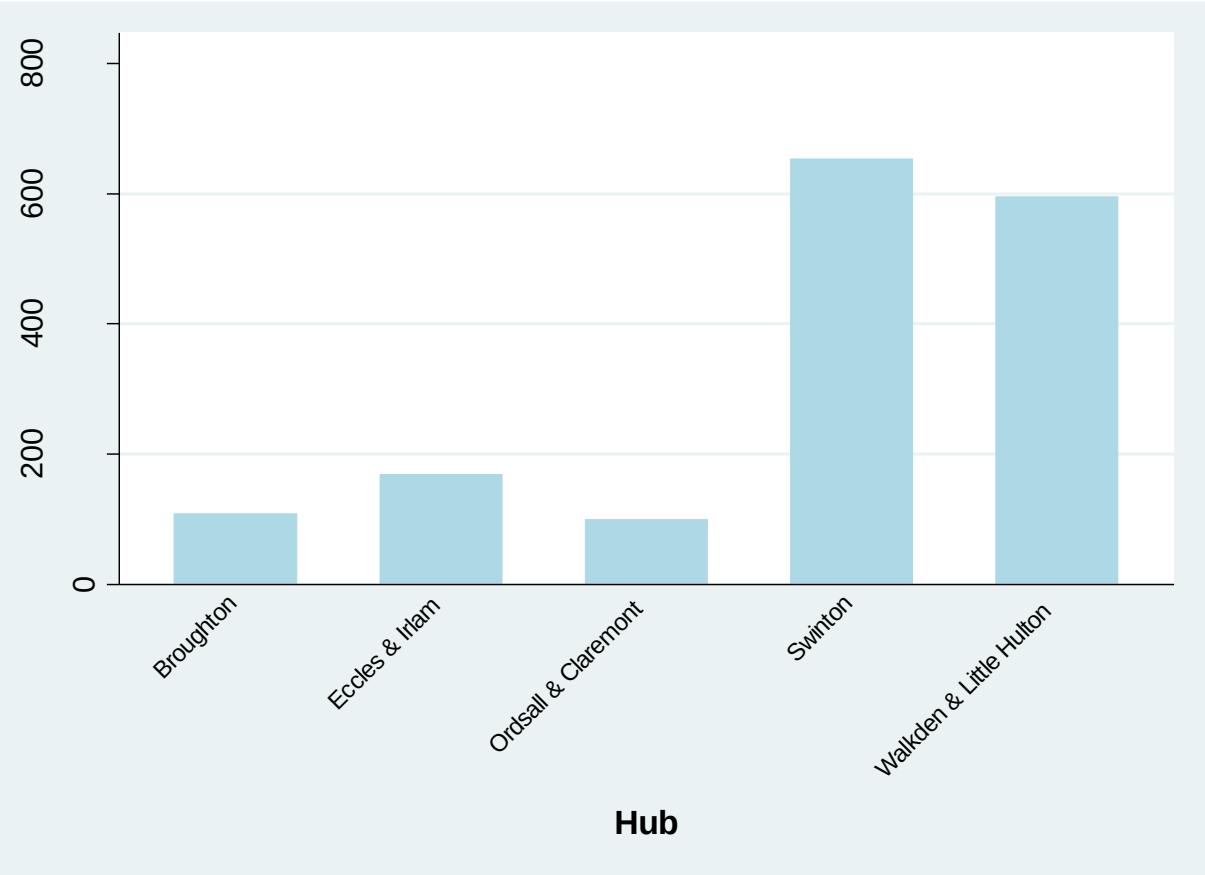


Table 12 SWEAP patient satisfaction survey respondents (n=1624) by sex, age, hub and ethnicity

Characteristic	Responses (% complete/1624)		N	%	SWEAP % (2018/19)
Sex	1526 (93.97%)	Female	919	60.22	56.23
		Male	607	39.78	42.49
Age	1552 (95.57%)	0-14 years	83	5.35	N/A
		15-24 years	208	13.40	N/A
		25-34 years	367	23.65	N/A
		35-44 years	268	17.27	N/A
		45-54 years	253	16.30	N/A
		55-64 years	211	13.60	N/A
		65+ years	162	10.44	N/A
Ethnicity	1550 (95.44%)	White British	1369	88.32	N/A
		BaME	125	8.06	N/A
		White – other	58	3.74	N/A
Hub visited	1626 (100.00%)	Broughton	109	6.70	22.37
		Eccles	169	10.39	25.19
		Pendleton	100	6.15	8.81
		Swinton	653	40.16	22.61
		Walkden	595	36.59	21.02

Responses were received for patients attending each of the five hubs in Salford. The bulk of respondents attended either the Swinton (40%, n=653) or Walkden & Little Hulton (37%, n=595) hubs (Figure 20). Patients attending these hubs were over-represented in the survey compared to attendance by hub for all of SWEAP across financial year 2018/19, whilst those attending Broughton and Eccles hubs were under-represented (Table 12).

Figure 20 Survey respondents (n=1626) by hub attended



6.3. Use of SWEAP

For most neighbourhoods, it was commonplace for patients to be attending a hub in the same neighbourhood as their regular practice (Table 13). Although reports from the qualitative and appointment analyses of SWEAP suggested that the residents of Irlam were generally low users of the service due to being a long distance from the Eccles Gateway, the Eccles and Irlam hub had the highest proportion of patients using their 'home' hub (86%, n=155). This is indicative of the high proportion of users in Eccles attending their neighbourhood, given the observed low use of patients from Irlam practices in our appointment analysis. Ordsall and Claremont was notable in that less than half of survey participants for that area were visiting their local hub, with only 34% (n=42) of respondents for the area reporting this. For all other areas, at least 70% of participants were visiting their home hub. In comparison to the

SWEAP appointment analysis dataset, the rate of home hub use by survey respondents was similar in Eccles, higher in Swinton and Walkden, and lower in Broughton and Pendleton.

Table 13 Use of 'home' and other neighbourhood hubs by survey participants, based on the neighbourhood of their usual practice

Neighbourhood of usual practice	Number visiting 'home' neighbourhood hub	Number visiting other neighbourhood hub	% visiting home neighbourhood 'hub' (survey)	% visiting home neighbourhood 'hub' – SWEAP 2018/19
Broughton	94	38	71.21	79.60
Eccles & Irlam	155	25	86.11	83.73
Ordsall & Claremont	42	83	33.60	50.69
Swinton	459	92	83.30	73.43
Walkden & Little Hulton	487	129	79.06	68.34

Respondents were asked why they had opted for a SWEAP appointment using a multiple choice question where more than one reason could be selected (therefore the total of all reasons is larger than the number of survey participants). 422 (26%) respondents gave no reason for selecting a SWEAP appointment. The most commonly reported reasons for attending SWEAP was the lack of availability of appointments during normal hours, cited by 56% (n=916) of all respondents (Figure 21). Similarly, the availability of a SWEAP appointment before the next core hours appointment was a reason for attendance for 19% (n=301) respondents. A similar pattern was observed also for sex (Figure 22) and age (Figure 23) categories, with some minor fluctuations for age in those categories receiving a low number of responses overall (e.g., childcare and availability of co-attendee).

Figure 21 Participants' (n=1626) reasons for attending SWEAP appointment rather than core hours

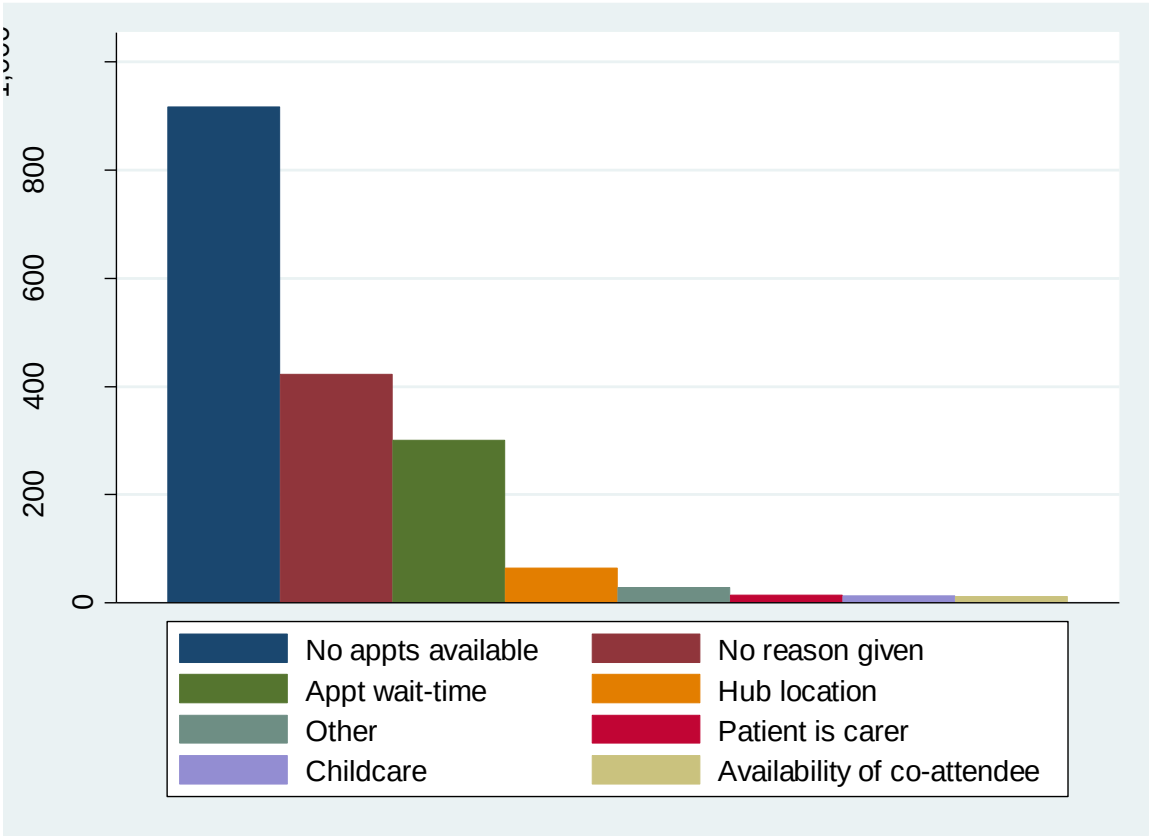


Figure 22 Reason for SWEAP attendance by sex

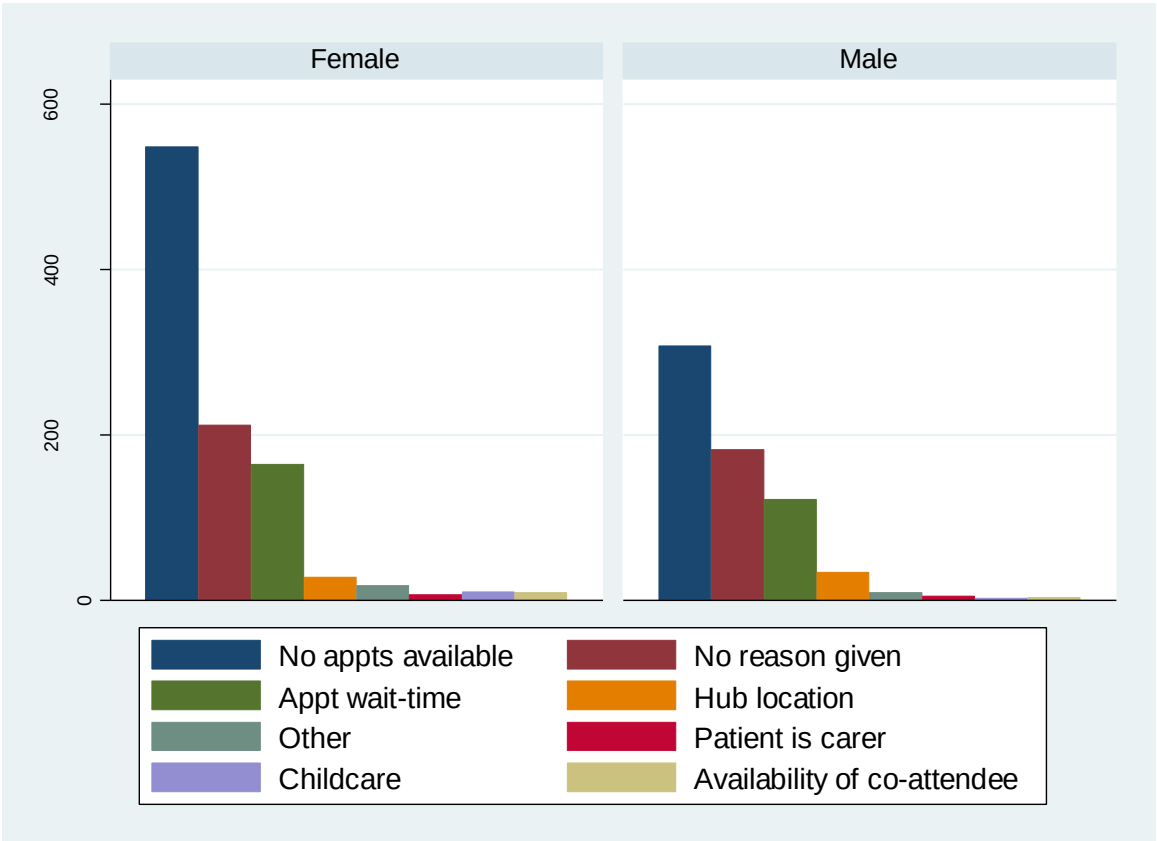
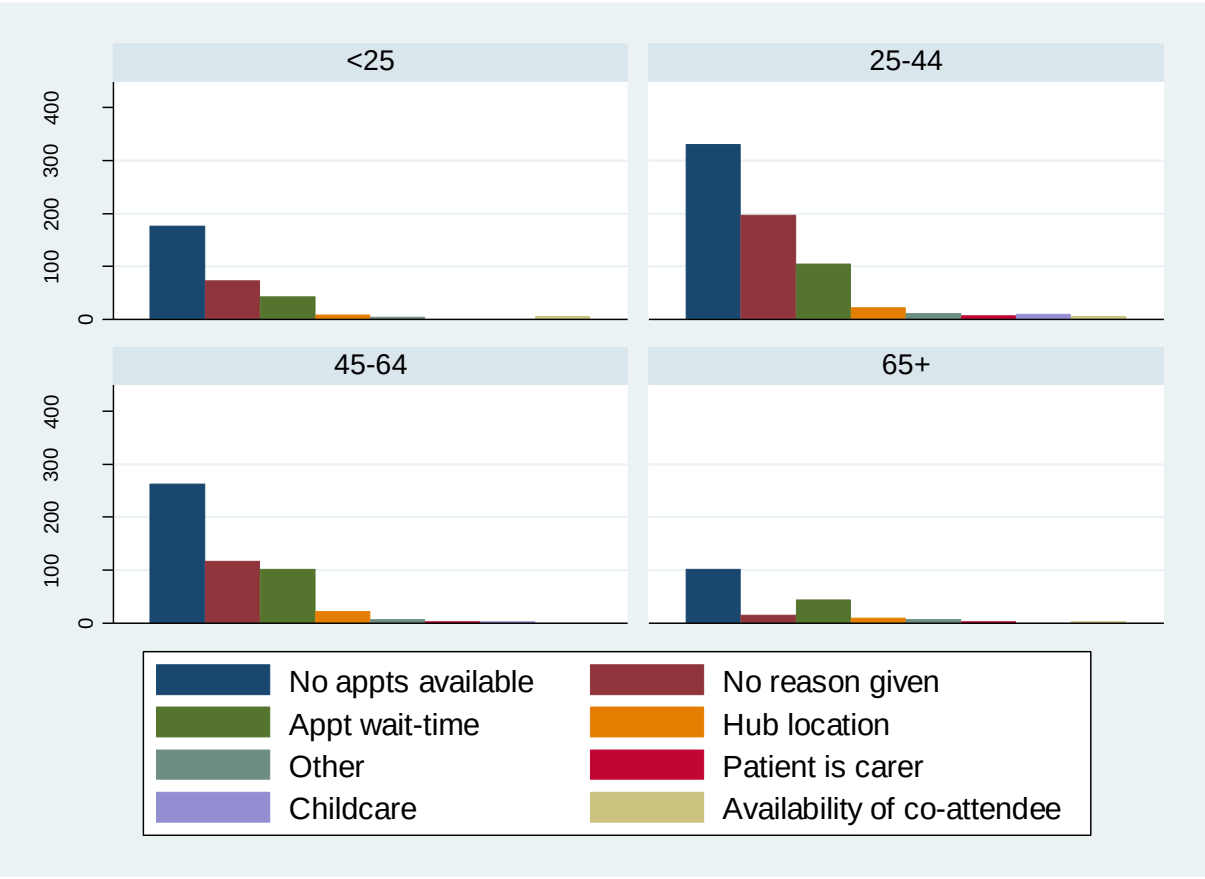


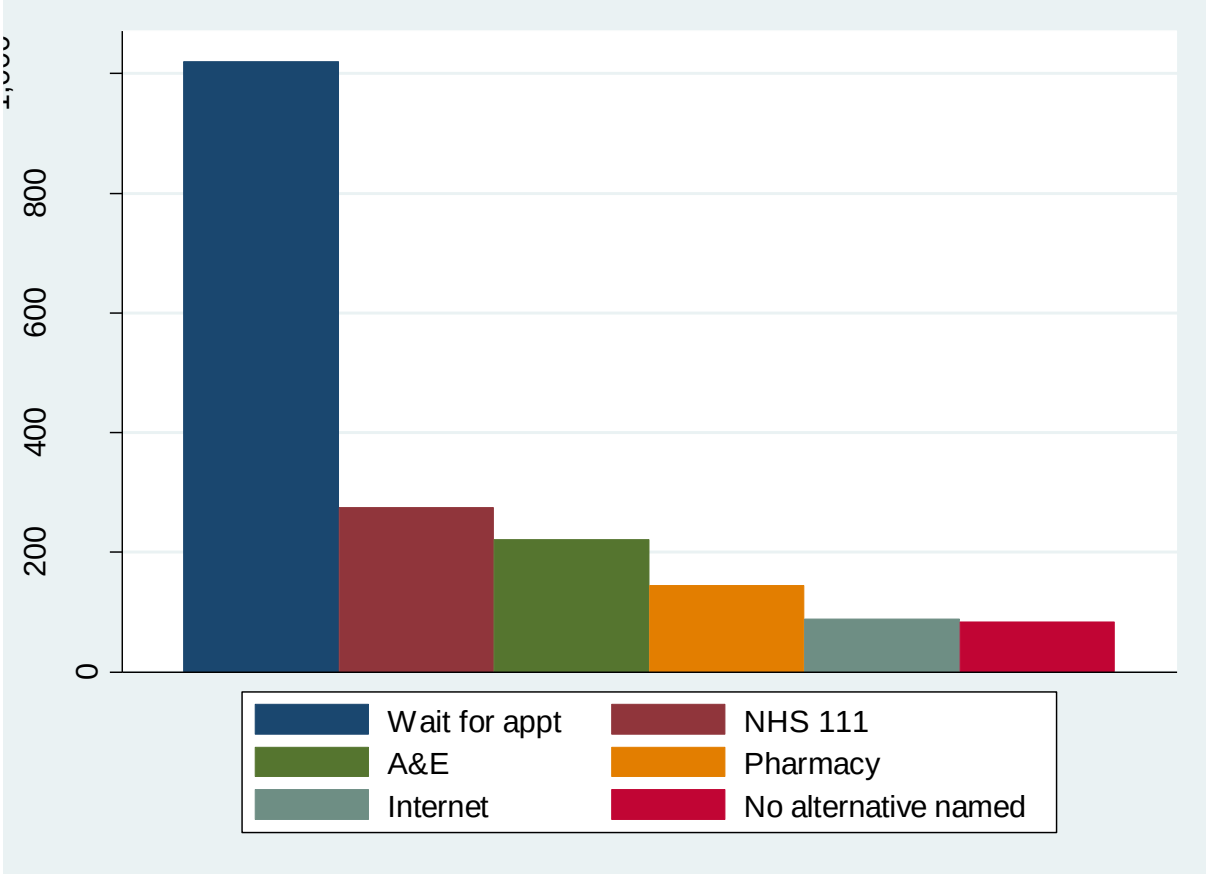
Figure 23 Reason for SWEAP attendance by age band



Views on the service were overwhelmingly positive. From the 1602 patients giving an answer, over 99% (n=1589) said they would use SWEAP again, with the remainder (n=13) being either not sure or saying they would not. Of 1,557 respondents, 79% (n=1,225) stated they were extremely likely to recommend SWEAP to friends and family, with a further 19% (n=303) likely to do this. Around 2% (n=25) were neither likely nor unlikely to recommend the service, and the remaining four (0.3%) were extremely unlikely to. No-one stated that they were simply 'unlikely' to recommend the service.

Had their SWEAP appointment not been available, most participants (63%, n=1020) said they would have waited for an appointment in core hours (Figure 24). Of the remaining options, the most stated alternatives were ringing NHS 111 (17%, n=275), attending A&E (14%, n=221), attending a pharmacy (9%, n=144) and consulting the internet (5%, n=89). Respondents could select more than one alternative in responding, and overall 5% (n=83) stated no alternative at all.

Figure 24 Participants' (n=1626) choice of alternative had they not attended SWEAP appointment



There were some minor between-sex differences in terms of alternative to SWEAP (Figure 25). Men were slightly more likely to attend A&E than use NHS 111, whereas women were more likely to use NHS 111. Women were more likely to attend a pharmacy than use the internet, whilst men were just as likely to use either. By age band, the one notable difference was that those aged 65+ years were more likely to attend A&E than use NHS 111, although a low number of respondents in this age group selected either category (Figure 26).

Figure 25 Patient SWEAP alternative by sex

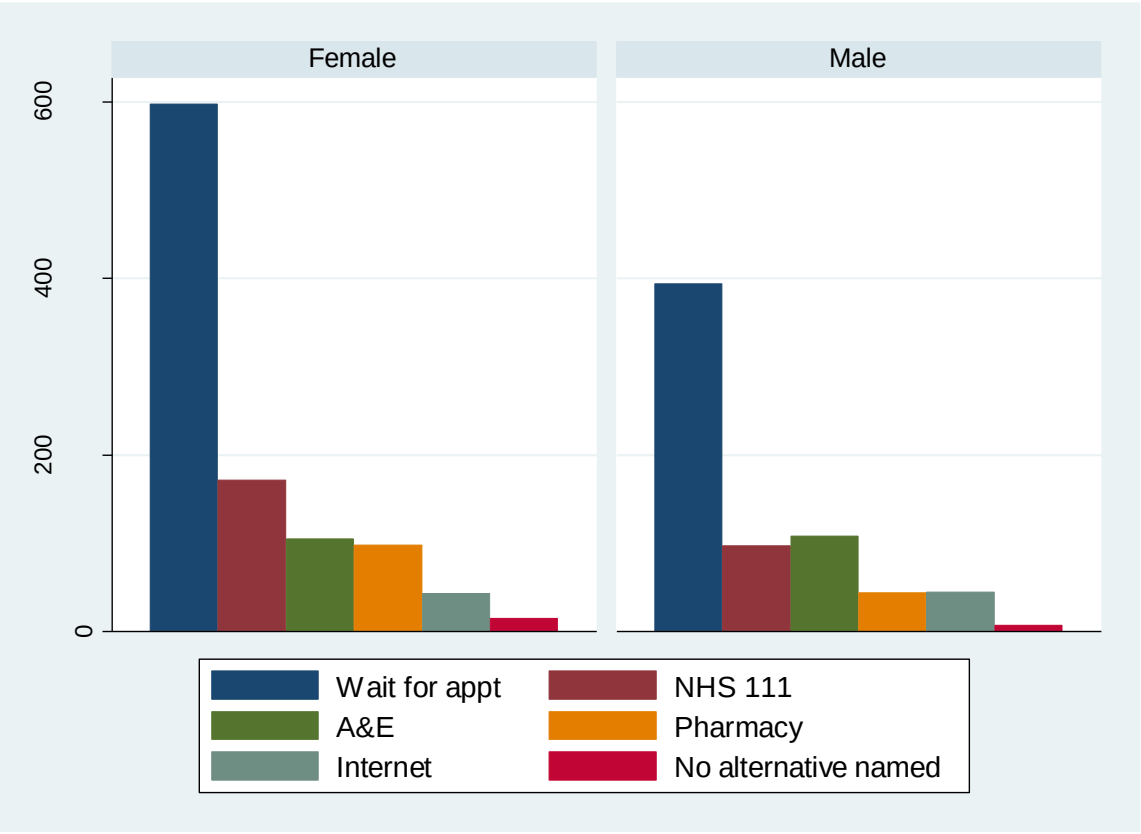
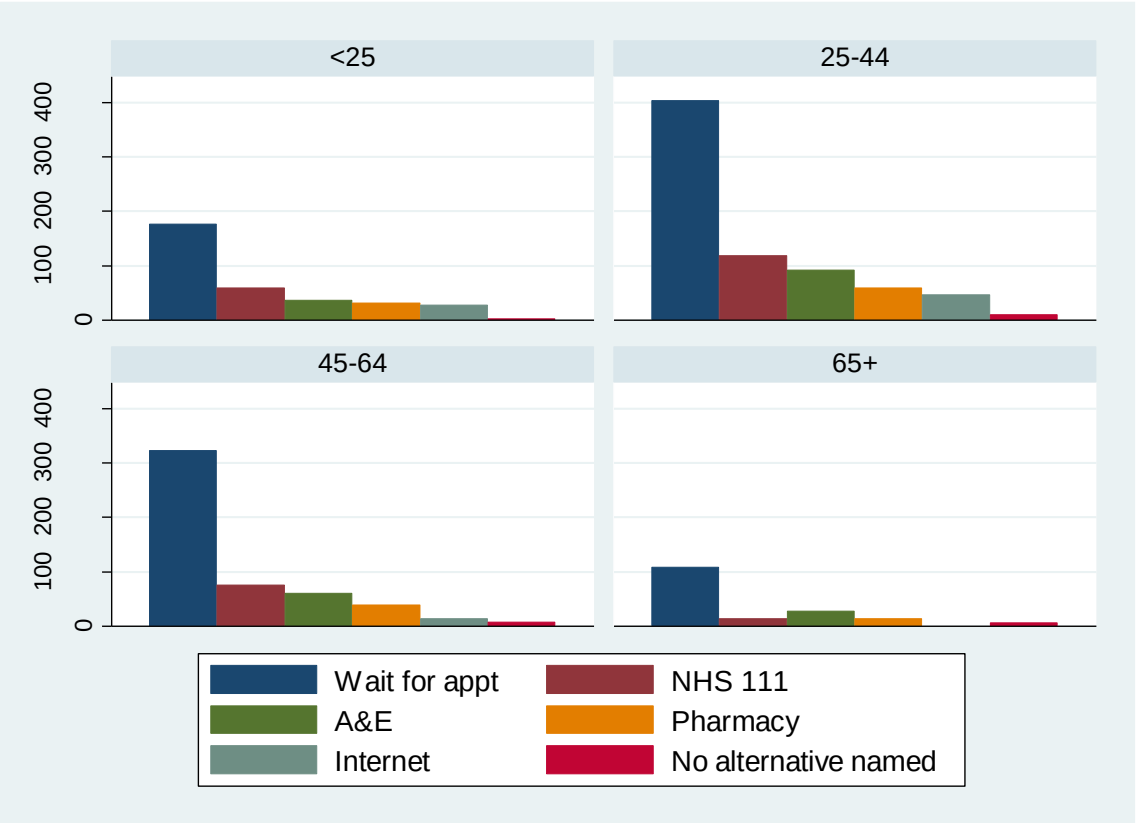


Figure 26 Patient SWEAP alternatives by age band



6.4. Discussion

Demographically, in comparison with the appointment analysis dataset; females were over-represented in survey respondents, and whilst the working age population was most represented, this was at a slightly lower rate than the proportion of SWEAP users aged between and 16 and 64 years. The proportion of survey respondents from neighbourhoods also differed to the proportion of appointments booked by neighbourhood.

SWEAP appointments were largely booked in the absence of any appointments in the home practice, or the offer of a SWEAP appointment prior to the next available home practice appointment date. Therefore the service is not presently primarily driven by convenience of time or location, but rather the ability to obtain an appointment with greater speed. Had SWEAP not been available, a large number of patients would have waited for an appointment, whilst others were likely to ring NHS 111 or attend A&E. The service may be freeing up capacity for other patients in core hours, provided the patient did not subsequently present in core hours following the SWEAP appointment for the same issue. This also suggests some possible reduction in the use of urgent care services as a result of SWEAP, but as an analysis of a cross-sectional survey we cannot assume causality. This relationship is explored further in Section 8.

The clear message from this survey is that those successfully attending SWEAP appointments are pleased with the service, would return and would recommend it to others. The CLAHRC GM evaluation did not include gathering patient feedback and these data supplied by SPCT have helped add to the overall evaluation outlined here. However, as we did not design the questionnaire or individual questions (including response options), nor complete data collection ourselves, it is important to present some caveats to these findings. Data collection did not include evaluation from those who had appointments cancelled, have tried to book onto SWEAP but been unable to, or were unable to attend for other reasons. We also do not know details of those not booking onto the service and their reasons for not engaging with SWEAP.

We also do not know about who declined to complete surveys – whether they were less satisfied with the service or whether other factors, such as available time, general willingness, language barriers or being occupied with – for example – childcare or other caring, prevented them from participating. Similarly, we do not know if each patient had an equal chance of receiving a questionnaire, or if certain staff members or certain hubs were more likely to distribute surveys than others. There was evidence of varying participation by hub. Swinton had the largest number of participants, which corresponds with that being the longest-running hub, but then the second highest number of participants came from Walkden and Little Hulton, the

last hub to open. These results should be treated with caution, but do provide a useful insight into whether patients are valuing the SWEAP service.

As part of this analysis we did want to look at how perceptions of SWEAP changed over time but were unable to due to problems with how the date and time of appointment was recorded. However, given that responses were largely similar in relation to perceptions of SWEAP – highly rated quality, would recommend to others (79%), would use again (99%) – this would not have added much value.

7. Clinical audit assessment of a sample of SWEAP appointments

7.1. Data collection

The aim of the clinical audit was to assess the impact of the extended access service on patients and in-hours general practice. A pro forma was developed to facilitate examination of case notes of a structured sample of patients that attended extended access appointments at SWEAP hubs (Table 14). Data were gathered from patients' full clinical notes, the data were in the form of both free text about the appointment and quantitative data on any interventions and subsequent use of health care services. Information on SWEAP consultations are recorded in the Vision Anywhere system and returned to the patient's practice (which could use the Vision or EMIS system). The researcher was a single auditor who was also an experienced GP.

Table 14 Data collected and mode of analysis

Research questions	*Mode of analysis*
Was sufficient information about the appointment recorded in the clinical notes by the clinician?	*The judgement of the auditor reviewing the free text of the case notes was used to ascertain whether documentation was appropriate. Information was classified as either:* • *Satisfactory (complete, no clear omissions)* • *Reasonable (some clear omissions)* • *Unsatisfactory (no data/entry)*
What was the reason for attendance?	*Free text in notes categorised using Halter's classification system[14]:* • *Minor (includes presentation with more than one minor problem)* • *Chronic (a condition present for 6 months or more)* • *Acute (potentially life threatening required immediate action)* • *Process (an administrative issue e.g. re-issue of a previous sick note)*
Were the needs of the patient met by the SWEAP appointment?	*Whether an appointment met the patient's need was assessed in two ways:* • *Records were assessed to identify any use of health care services in the 2 weeks before and after an appointment. The judgement of the auditor was then used to decide whether this use suggests the need for the patient was not met* • *The outcomes of an appointment were reported*
Did the SWEAP appointment generate follow-up activity for patients' regular	*Records were examined to explore any aspects of a SWEAP consultation that resulted in follow-up activity in in-hours general practice (excluding non-planned re-consultations).*

[14] Capturing complexity in clinician case-mix: classification system development using GP and physician associate data. Halter M et al. (2018) BJGP Open 2(1); DOI:10.3399/bjgpopen18X101277

practices?	

Broader impacts in the episodes of care provided by SWEAP were also explored using qualitative methodology. As well as documenting prescribed quantitative outcomes, the auditor examined the patient's journey through the health care system in relation to their use of SWEAP, as documented in their record. Records were compared to one another using a constant comparison approach and themes/issues that were elucidated from sets of notes were examined in subsequent records.

7.2. Sampling

Due to restrictions with IT access and data protection, patient records had to be examined in a patient's registered practice. Time and access therefore dictated the number of practices from which we were able to select patients. The sampling strategy was purposive; NHS Salford CCG wanted to include data from appointments provided at all five neighbourhood hubs. For each practice, the hub that tended to be used by their patients was identified and then one practice for each hub was selected to be audited. NHS Salford CCG selected practices to provide a range of levels of use of the SWEAP service and proximity to a hub location. The practices selected, and their characteristics are shown in Table 15. Data on hub usage and proximity was provided by NHS Salford CCG.

Table 15 Characteristics of sampled practices

Practice	*Hub used by majority of practice patients accessing SWEAP*	*IT system used*	*Usage level of SWEAP* (high/ medium/ low)*	*Proximity to nearest hub* (co-located/ near/ medium/ far)*
Newbury Green	*Broughton*	*Vision*	*High*	*Co-located*
SPCT (3 practice sites)	*Eccles*	*Vision*	*Medium Medium*	*Co-located (1 practice) Medium (2 practices)**
Pendleton	*Pendleton*	*Vision*	*Medium*	*Co-located*
Silverdale	*Swinton*	*EMIS*	*Low*	*Near*
Ellenbrook	*Walkden*	*EMIS*	*High*	*Far*

**NHS Salford CCG provided the groupings for these categories*

The auditor was provided with a list of all patients from the sampled practices that booked an appointment at any SWEAP hub from 1st June 2018 till 31St November 2018.This was a total of 890 appointments. Excluding did not attend (DNA) appointments (197) and Health Care Assistant (HCA) nurse appointments (39) gave a total of 654 SWEAP appointments.

The 654 appointments were organised chronologically. The number of records to be audited was limited by time constraints. Number of records was calculated from the time available at the practice, and the average time to conduct an audit per patient. Records were then selected by taking every nth record in the list, where n is the total number of appointments on the list divided by the number of appointments that could be audited during the time available. For example, if there were 100 records and there was time to process 20, the auditor would have chosen every fifth record in the list of patients. To this extent the sample represents a random selection of patients attending SWEAP appointments from each of the five selected practices over the time of the study. In all, we sampled a total of 211 (32%) of the appointments for the review (Newbury Green: 56 appointments, SPCT: 49, Pendleton: 22, Silverdale: 39, and Ellenbrook: 45).

7.3. Results

7.3.1. Was sufficient information recorded in the clinical notes by the clinician?

Notes were assessed by the auditor for completeness. Notes were recorded as *unsatisfactory* if there was insufficient documentation to ascertain what had happened during the consultation. Notes were classified as *reasonable with some omissions* if the purpose and outcome of the visit was evident but other information was missing. This was information that could help other clinicians understand what happened during the consultation and would normally be expected to be recorded during a similar consultation. For example, the specified follow up was unclear, examination findings were not recorded, or red flags symptoms were not recorded. Table 16 gives the classification of information recorded in the appointments audited. The vast majority of the records were judged to be *satisfactory* by the auditor (87%). 14 sets of notes were judged to be *reasonable with some omissions* (7%) and 13 set of notes were judged to be *unsatisfactory* (6%).

Table 16 Rating of clinical note documentation

Information classification	*Number of records*	*% records audited*
Satisfactory	*184*	*87%*
Reasonable with some omissions	*14*	*7%*
Unsatisfactory	*13*	*6%*
Total	*211*	*100%*

Satisfactory: insufficient documentation to ascertain what had happened during the consultation
Reasonable with some omissions: purpose and outcome of the visit was evident but other information was missing
Unsatisfactory: no data/entry

7.3.2. Reasons for attendance

Table 17 shows the reasons for each patient's attendance. The majority of appointments were solely for minor problems (74%). 21% of appointments were solely for chronic health conditions. 59 of the 211 sampled appointments (30%) were taken by patients who were on a chronic disease register or who had a significant long-term medical condition.

Table 17 Reason for patient attendance

Reason for SWEAP appointment	*Number of records*	*% records audited*
Minor	*148*	*74%*
Chronic	*42*	*21%*
Not clear/not recorded	*11*	*5%*
Minor + process	*3*	*1.5%*
Acute	*2*	*1%*
Minor + chronic	*2*	*1%*
Process	*1*	*0.5%*
Prevention (e.g. discussion about a screening test)	*1*	*0.5%*
Minor + prevention	*1*	*0.5%*
Total	*211*	*100%*

Minor: includes presentation with more than one minor problem
Chronic: a condition present for 6 months or more
Acute: potentially life threatening required immediate action
Process: an administrative issue e.g. re-issue of a previous sick note

7.3.3. Were the needs of the patient met by the SWEAP appointment?

To inform whether the extended access service was meeting patient needs we assessed information contained in patient records regarding the use of healthcare services two weeks before and two weeks after an appointment and the outcome of the extended access appointment.

7.3.4. Did the patient consult their own practice/other providers about the same issue in the 2 weeks before or after the SWEAP appointment?

Attendances elsewhere in the health system before and after a SWEAP appointment are detailed in Table 18.

*Table 18 Attendance elsewhere in the system before or after a SWEAP appointments**

Activity	*Number of records*	*% records audited*
2 weeks before SWEAP appointment		
General practice	*8*	*4%*
Other provider (111/A+E/secondary care)	*13*	*6%*
2 weeks after SWEAP appointment		
General practice	*34*	*17%*
Other provider (111/A+E/secondary care)	*5*	*2%*
48 days prior to SWEAP appointment		
General practice	*11*	*5%*
48 days after SWEAP appointment		
General practice	*51*	*24%*

**Patients could present at general practice and at other providers meaning the total may not amount to the summation of general practice and other providers*

Eight patients (4%) had consulted at their regular practice for the same issue as the SWEAP appointment in the 2 weeks prior to their SWEAP appointment. Only two of these eight subsequent SWEAP consultations appeared to be for “second opinions”. Thirty-four patients (17%) consulted at their regular practice for the same issue as the SWEAP appointment in the 2 weeks after their SWEAP appointment.

Although we initially decided to use 2 weeks as a cut off for re-consultation, it became evident that many patients were re-consulting more than 2 weeks after their SWEAP appointment. When we looked at subsequent GP appointments up to 48 days after the SWEAP consultation, the re-consultation rate rose to 51 (24%), including appointments for the same issue that was addressed during the SWEAP consultation.

Eighteen (8.5%) patients consulted another provider (111/A&E/secondary care) in the two weeks before or after their SWEAP appointment for the same issue. Four (2%) patients were followed up and reviewed by the SWEAP hub service for the same issue as their baseline consult. A proportion of these re-consultations appear to be entirely clinically appropriate and unavoidable. This issue is discussed later in the results.

In total, 54 (25%) patients were seen by their own GP or other providers, for the same clinical issue, in the two months after the SWEAP consultation. Of these 54 appointments, 17 (8.5% of total appointments reviewed) were as a result of issues with the set-up of SWEAP hub services and may be seen as ‘avoidable’ (Table 19). In the other 37 consultations it was felt that the extended access appointment “added” to the management of the patient’s issue.

Table 19 Reasons for appointments resulting in avoidable subsequent attendance in general practice

Reason for subsequent appointment in general practice	*Number of patients*
Referral or bloods requested from SWEAP clinician was not performed by GP practice	*3*
Lack of access to notes/letters/investigation results for SWEAP clinician	*3*
SWEAP clinician altered long term condition management which was then changed back by in-hours GP	*3*
Unclear	*3*
SWEAP patient wanted to see a female GP	*2*
SWEAP clinician appears unaware of local services	*1*
Should have been seen in different clinic e.g. stop smoking rather than SWEAP	*1*
SWEAP clinician unhappy to issue fit to work note (MED3)	*1*
Total	*17*

7.3.5. What were the outcomes of appointments?

The outcome of each visit was classified using the categories in Table 20. These outcomes are difficult to attribute to needs being addressed, this would require inference from further use of health care and enquiries with patients. However, the outcomes give an understanding of the type of work generated by SWEAP appointments.

Table 20: Appointment outcomes

*Outcome of appointment**	*Number of records*	*% of records*
1 or more prescriptions issued	*79*	*39%*
Advice only given	*40*	*20%*
Blood tests requested	*32*	*16%*
Referral to another service	*26*	*13%*
X-ray or other imaging request	*20*	*10%*
Asked to see in hours GP	*8*	*4%*
Stool/self-swab/nail clippings requested	*4*	*2%*
Urine sample (MSU) requested	*3*	*1.5%*
Electrocardiogram (ECG) requested	*3*	*1.5%*
Emergency admission	*2*	*1%*
Fit for work note (MED3) issued	*2*	*1%*
Gynaecological swabs taken in appointment	*1*	*0.5%*
Echocardiogram requested	*1*	*0.5%*

**The total number of records does not equal 211 since some consultations, other than those recorded "advice only given", have multiple outcomes e.g. a patient may have had a prescription + referral + blood test request.*

7.3.6. Did the SWEAP appointment generate follow-up activity for patients' regular practices?

48% of appointments resulted in follow-up work for the patient's in-hours registered practice. This does not include non-planned re-consultation or contact with the patient's regular practice (Table 21).

Table 21: Activity post-SWEAP appointment

What work did a patient's registered practice have to do after the SWEAP appointment	*Number of records **	*% of records*
No further work	*107*	*52%*
Order and/or chase up blood/imaging/investigation results	*42*	*21%*
Create/send referral letter	*25*	*12%*
Review a patient	*24*	*12%*
Practice to review correspondence which EA clinician could not access	*4*	*2%*
Alteration of repeat prescription	*1*	*0.5%*
Practice to try and expedite a secondary care appointment	*1*	*0.5%*

**More than one activity could be generated from an appointment*

7.3.7. Other themes and issues elicited from the audit

Continuity of care

Continuity of care is a complex construct and here we use the term to refer to whether a patient sees the same clinician in different appointments. It is inevitable that most patients accessing SWEAP will have reduced long-term continuity of care by the fact they are seeing a clinician outside of their regular practice. A sizeable number of patients in regular practice do not see the same clinician on each occasion.

Continuity of care can be looked at from a particular episode of care as well as a patient's long-term care. In 70% of hub consultations, continuity of care with a particular clinician was not deemed to be important to the outcome of the issue/issues dealt with at the SWEAP appointment. There were also 61 multiple (30%) consultations where continuity of care might have improved patient care, satisfaction, safety and efficiency.

Examples include:

- Review of long-term mental health issues where the patient had seen a regular GP for the same problem several times before
- First presentation of mental health problems that required follow up
- A management strategy was commenced for long term IBS/gastro issues by the patients regular GP which was changed by the SWEAP clinician and then changed back again by the patient's regular GP
- Long term poor control of asthma.

In some instances, the hub clinician was so keen to maintain some continuity of care that they created a “work around” for the system, including three instances where a hub GP arranged follow up of a patient with themselves in their regular in-hours surgery.

7.4. Conclusions

Based on the results of this case note review, the SWEAP service is providing a safe, effective service to the majority of patients that use it. It was found that 94% of the clinical notes sampled were either *satisfactory* or *reasonable with some omissions* and clinical actions deemed necessary by the hub clinician were passed to practices who carried them out.
In most cases in our sample, the SWEAP service met the needs of the patients attending. In the majority of cases within the sample (76%), patients did not re-consult with their in-hours GP practice for the same issue in the 2 months following their SWEAP appointment (17% in the two months following the appointment). Of those patients that did re-consult, it was felt by the auditor that the SWEAP appointment added value to care in most cases (52/69), but generated duplication of work in the remaining 17 (8.5% of total sampled consultations).

Nearly half (48%) of SWEAP appointments resulted in additional follow-up work for the patients’ in-hours registered practice such as ordering imaging results or sending referral letters. It is not possible to quantify whether this additional follow-up work would have occurred had the patient been seen by their own GP rather than a SWEAP clinician.

In order to provide more efficient seamless care, hub clinicians would benefit from having full access to the patient’s records, including secondary care letters, during hub appointments.

Improving continuity of care may not clinically benefit the majority of patients attending hub appointments, however some patients may benefit from improved continuity. The option to enable follow up with a named hub clinician could be considered. An alternative could be some form of screening of patients booking into SWEAP appointments to access their need for continuity.

7.4.1. Strengths and Limitations

The key strength of this audit is that it involves in-depth analysis of individual case notes using independent clinical judgement, which enabled the assessment of the utility of SWEAP appointments in several ways. Importantly, the methodology can be replicated in other areas, or in Salford at future time points.

There are also several limitations to the methodology adopted. Firstly, while the sampling strategy was designed to cover all areas and different kinds of practice, a different approach to practice selection may affect the findings here. It is also worth noting that the nature of SWEAP activity may differ in other time-periods. The dates selected include mainly summer months, with lower usage and often different types of appointment needed (e.g. more flu likely in winter) and there would likely be more pressure on in-hours appointments over winter. In addition, the audit does not take into account qualitative changes in provision, such as improvements to SWEAP clinician induction process or developments around IT provision. It is therefore important to note that the findings may not be generalisable across other practices in Salford and other time points.

Finally, as the audit focused on actual appointments, it does not shed any light on the reasons for, or impact of, cancelled appointments or unavailable sessions.

8. SWEAP Impact Analysis

8.1. Data collection

This section of the report presents the findings from assessments of correlations between SWEAP provision and urgent care activity related to Accident and Emergency (A&E), NHS 111, and Out of Hours (OOH) contacts.

Comparisons of average contacts per month per 1,000 registered patients before and after SWEAP enactment were conducted. SWEAP activation varied across neighbourhoods such that the after period varies by neighbourhood. To account for seasonal trends and the variations in months covered by different neighbourhoods we adjust for month in the analyses.

The Appendix contains further details about the approach taken. For each type of contact assessed this includes:

1. Total contacts by financial year
2. Graphs of contacts per 1,000 registered patients per month by NHS Salford CCG and neighbourhood over the period 2014/15 to 2019/20
3. Graphs of the estimated change in contacts per 1,000 patients per month in the SWEAP period[15]

While we initially planned to conduct separate analyses for hub and non-hub practices this was deemed infeasible given the set-up of SWEAP. SWEAP is not housed/provided by individual practices. However, the scale of appointments booked across neighbourhoods may help identify a dosage effect. Additional analyses assessed whether practices with relatively greater dosage of SWEAP appointments experienced greater impacts on service use.

The analyses are conducted for NHS Salford CCG and subsequently stratified by neighbourhood. For presentational purposes neighbourhoods are abbreviated to: Broughton; Eccles; Pendleton; Swinton; and Walkden hereon in.

8.1.1. A&E attendances

NHS Salford CCG provided A&E activity data. The data covered attendance activity for the period April 2014 to March 2019. Data were restricted to only patients registered with a NHS Salford CCG general practice. Data for each attendance included: age band, gender, practice code, referral mode, healthcare resource group (HRG) code, cost, arrival date, and arrival mode.

[15] Estimates are from ordinary least squares regressions of the impact measure against month and neighbourhood dummies and a SWEAP dummy identifying whether SWEAP was live. Standard errors are robust and clustered by practice.

We sought to assess whether the introduction of the SWEAP service was associated with changes in A&E activity in:

i. Total A&E attendance
ii. A&E attendances by HRG intensity (minor attendances)
iii. A&E attendances by referral (self-referral attendances)
iv. A&E attendances by referral and HRG intensity (minor self-referrals)

Minor A&E attendances were identified by attendances with HRG codes of "VB06Z", "VB09Z", "VB10Z", and "VB11Z". These groupings have been used in previous assessments of A&E attendances as being potential sources of activity that extensions of access to general practice may avoid.[16]

We separated self-referral attendances to assess whether SWEAP is associated with reductions in patients self-referring to A&E.

The final specification for A&E attendance concerned self-referral minor A&E attendances, this was to narrow the focus of minor attendances to those where the patient had self-referred and to be in line with past evaluations.[17]

45 practices were modelled over 60 months (1 practice (P87668) was not present in 2018/19 and was removed from the analysis).

8.1.2. NHS 111 contacts

NHS Salford CCG provided NHS 111 activity data. The data covered monthly practice-level activity for the period April 2014 to June 2019. Data were stratified by outcome of the contact. The potential outcomes included:

1. Ambulance dispatched
2. Not recommended to attend other service
3. Recommend to attend A&E
4. Recommend to attend other service
5. Recommend to attend primary and community care

We sought to assess whether the introduction of the SWEAP service was associated with changes in NHS 111 activity. There are contacts with NHS 111 that are unlikely to be influenced by the provision of SWEAP, namely those resulting in urgent emergency care '(Ambulance dispatched' or 'Recommend to attend A&E'). We therefore conduct two sets of analyses: i) Total NHS 111 contacts and ii) NHS 111 contacts with a non-emergency recommendation (2, 4, and 5 above). 45 practices were modelled over 63 months. A practice in Pendleton had no reported NHS 111

[16] Whittaker W, Anselmi L, Kristensen S, et al. Associations between extending access to primary care and emergency department visits: a difference-in-differences analysis. *PLoS Med* 2016;13(9):e1002113

[17] Whittaker W, Anselmi L, Kristensen S, et al. Associations between extending access to primary care and emergency department visits: a difference-in-differences analysis. *PLoS Med* 2016;13(9):e1002113

activity after January 2018 and was excluded since practices need to be present in both pre- and post-SWEAP periods.

OOH contacts

NHS Salford CCG provided OOH activity data. The data covered monthly provider group (broadly practice-level) activity for the period April 2014 to July 2019. Total contacts were provided only (no further detail relating to the content or outcomes of contacts were available).

We sought to assess whether the introduction of the SWEAP service was associated with changes in OOH activity. 42 practices were modelled over 64 months (assignment to practice code and patient list size was not possible for 3 practices in the data).

8.2. Results

Table 22 provides the estimated changes in contacts per month per 1,000 registered patients.

8.2.1. A&E attendance

For A&E attendances in NHS Salford CCG we found on average 0.35 fewer A&E contacts per month per 1,000 patients in the SWEAP period (this difference was statistically insignificant, p=0.407). By dosage no significant change in attendances were found for either grouping of practices. Neighbourhood estimates also found no significant change in A&E per 1,000 patients per month in the SWEAP period aside from Pendleton where A&E attendances have reduced in the SWEAP period. For NHS Salford CCG, both dosage groups, and all neighbourhoods except Broughton we found a significantly higher cost per 1,000 patients per month in the SWEAP period (£1,092.93 for NHS Salford CCG, p<0.001).

For each neighbourhood, dose group, and for NHS Salford CCG as a whole, there are significant reductions in minor A&E attendance, this is also found for minor A&E costs.

Estimates of the change in self-referral A&E attendance suggest only the Walkden neighbourhood experienced any significant change in self-referral attendances at A&E in the SWEAP period, this being an increase of 2.62 attendances per 1,000 patients per month. All neighbourhoods, dose groups, and NHS Salford CCG as a whole experienced significant increases in self-referral A&E costs in the SWEAP period.

All neighbourhoods (and dose groups and NHS Salford CCG) aside from Walkden experienced significant reductions in self-referral minor attendances at A&E in the SWEAP period. All neighbourhoods, dose groups, and NHS Salford CCG as a whole

experienced significant reductions in self-referral minor A&E costs in the SWEAP period.

8.2.2. NHS 111 contacts

For NHS 111 contacts we found on average 1.4 fewer NHS 111 contacts per month per 1,000 in the SWEAP period (this difference was statistically significant, p<0.001). A similar 1.5 fewer NHS 111 contacts per month were found for NHS 111 contacts with a recommendation for non-emergency care (p=0.001). Dose group estimates find a significant reduction for the low dose group in total NHS 111 contacts but not high dose, both groups had a reduction in contacts with a recommendation for non-emergency care. Neighbourhood estimates reveal that the reduction in both measures of NHS 111 contacts is concentrated among three neighbourhoods (Broughton, Eccles, and Pendleton). Walkden experienced no significant change in total NHS 111 contacts but a significantly lower number of contacts with a recommendation for non-emergency care.

8.2.3. OOH contacts

For OOH contacts we found on average 0.63 fewer OOH contacts per month per 1,000 patients in the SWEAP period (this difference was statistically significant, p=0.039). Estimates by dose group find a significant reduction for the high dose group only. Neighbourhood estimates reveal that the reduction is concentrated among two neighbourhoods (Eccles and Pendleton).

Table 22 Estimates of the impact of SWEAP on A&E attendance, NHS 111 contacts, and OOH contacts

	NHS Salford CCG	High dose	Low dose	Broughton	Eccles	Pendleton	Swinton	Walkden
A&E attendance								
Total A&E attendances	-0.35	0.16	-0.52	-2.58	0.06	**-1.57**	-0.35	2.26
Total A&E cost (£)	**1,092.93**	**941.09**	**1147.17**	1,153.04	**1,309.56**	**1,094.77**	**1,191.12**	**727.10**
Minor A&E attendances	**-6.47**	**-5.92**	**-6.66**	**-6.72**	**-7.75**	**-8.33**	**-7.23**	**-2.61**
Minor A&E cost (£)	**-389.94**	**-369.15**	**-397.54**	**-425.53**	**-438.61**	**-503.15**	**-406.55**	**-191.14**
Self-referral A&E attendances	0.47	1.10	0.25	-0.63	0.28	-0.36	0.37	**2.62**
Self-referral A&E cost (£)	**664.63**	**662.60**	**666.06**	**465.29**	**824.24**	**746.37**	**794.37**	**523.27**
Self-referral minor A&E attendances	**-4.83**	**-4.30**	**-5.02**	**-4.36**	**-6.25**	**-6.30**	**-5.61**	-1.75
Self-referral minor A&E cost (£)	**-279.16**	**-265.94**	**-283.87**	**-254.99**	**-345.53**	**-361.50**	**-303.76**	**-131.01**
NHS 111								
Total NHS 111 contacts	**-1.44**	**-0.90**	**-1.62**	**-1.58**	**-1.55**	**-2.28**	-1.29	-0.56
NHS 111 contacts with recommendation for non-emergency care	**-1.49**	**-1.07**	**-1.64**	**-1.48**	**-1.61**	**-2.11**	-1.41	**-0.93**
OOH								
Total OOH contacts	**-0.63**	**-0.73**	-0.60	0.04	**-0.84**	**-1.37**	-0.79	-0.16

Estimates from separate linear regressions (Ordinary Least Squares) of volume or cost of attendance or contact per month per 1,000 against month dummy variables and a SWEAP active identifier. Neighbourhood dummies included in NHS Salford CCG regression. Robust standard errors are clustered at practice level.
Estimates that are in bold have a p-value less than 0.05 and deemed significant at conventional levels of statistical significance.

8.3. Discussion

The analyses of impacts on service use found reductions in minor A&E attendances and cost and self-referral minor A&E attendance and cost in the SWEAP period. There was little evidence of reductions in self-referrals or total A&E attendance but significant increases in cost of these attendances. These suggest the changes are being driven by reductions in minor A&E attendance. This seems plausible given the large proportion of patients using SWEAP appointments for minor problems (Section 7).

Reductions in average monthly NHS 111 contacts in NHS Salford CCG were found in the SWEAP period; these were concentrated among Broughton, Eccles, and Pendleton (largest drop). Similar effects were found for contacts with a non-urgent care recommendation, Walkden also experienced a reduction in non-urgent care contacts. Swinton appears to have experienced no significant change in either measure of NHS 111 contacts.

Reductions in average monthly OOH contacts per 1,000 in NHS Salford CCG were also found, these were concentrated among Eccles and Pendleton (largest drop) neighbourhoods with no significant change observed in Broughton, Swinton, or Walkden.

For all A&E attendance and NHS 111 measures, the estimated change in high dose practices (those with more than 100 appointments booked per 1,000 registered patients) is smaller than that seen in the low dose practices. Given the dosage grouping reflects a measure of SWEAP activity, it seems plausible to expect higher impacts for high dose practices. That we find the opposite casts doubt over whether the analyses is really identifying the effects of SWEAP or other factors. For OOH, on the other hand, there is some evidence that high dose practices had a reduction in OOH contacts and no change for low dose practices.

The findings here are also unreflective of provision seen in Section 5. There, Pendleton had the smallest amount of attendance per 1,000 residents yet here we see significant reductions in all impact measures for this neighbourhood.

8.3.1. Strengths and limitations

Survey responses in Section 6 suggested some patients accessing the SWEAP service may have sought care elsewhere such as A&E, NHS 111, or online. This suggests reductions in this type of service use would be plausible. However, caution is needed due to the inability to obtain a comparison group of practices that would net out any trend effects. This is particularly a problem for measures such as A&E

costs that appeared to trend prior to SWEAP introduction. Having a comparator group would also enable the effects of other initiatives to be removed from the estimated effect of SWEAP. At present any initiatives occurring either before or after SWEAP activation could bias the estimated effects. This is a likely possibility due to the presence of a GP streaming service (September 2017 to November 2018) and urgent care models in various forms to April 2019.

9. GP Patient Survey analysis

9.1. Data collection

To assess impacts on patient satisfaction with access to general practice we investigated whether the GP Patient Survey may include measures that may be feasibly impacted by SWEAP for patients in NHS Salford CCG.

The GP Patient Survey (GPPS) aims to capture patient perceptions and experience with primary care services.[18] A sample of the population receive a survey, this sample changes each year and is devised to ensure each practice sample is broadly representative of the practice population.[19] Weights are used to ensure demographic and socio-economic representation of the respondents to the general population. The weights take into account unequal probability of selection and non-response.[20] The GPPS is a potentially useful survey for the SWEAP evaluation since patient perceptions of access are recorded including satisfaction with opening hours, making an appointment, and processes taken when an appointment at the patient's general practice was not possible.

We explored the feasibility of conducting GPPS analyses during the evaluation. Two key limitations meant a thorough assessment of patient responses regarding access was not appropriate. These were:

1. The latest wave of GPPS data covered surveys distributed and responded over the January to March period of 2018. At the time of questionnaire distribution only Swinton and Eccles neighbourhoods had access to SWEAP appointments (August and October 2017 respectively). Broughton was activated in mid-January and Walkden and Pendleton in late March 2018. As the GPPS selects a sample of patients from registrations the chances of identifying a SWEAP appointment attendee may be small.
2. The ability to model changes in measures is dependent on a measure being in the survey. Whilst the GPPS questionnaire remained fairly stable since it's induction, the GPPS underwent significant changes in the 2018 questionnaire.[21] The impact of these changes on policy evaluation are significant. The questionnaire in 2018 contains 63 questions, 14 of which are unchanged and 9 have minor edits to wording.[22] Analysis of context effects

[18] https://www.gp-patient.co.uk/about, copies of the questionnaires and further details can be found here.

[19] https://gp-patient.co.uk/downloads/archive/2018/GPPS%202018%20Technical%20Annex%20PUBLIC.pdf
NHS Digital provide data on all eligible patients in England or Wales. Eligible patients were patients registered with a general practice for at least 6 months, with a valid NHS number and aged 16+ (18+ pre-2018). Sample size was determined by assessing questions with expected 50/50 responses (e.g. good/bad). The sample was generated by the sample needed to detect 95% confidence intervals of + or – 9.0 on a 50/50 question. To account for likely response the issues sample took into consideration the proportion of issued sample predicted to respond (based on previous GPPS surveys).

[20] See page 33 of: https://gp-patient.co.uk/downloads/archive/2018/GPPS%202018%20Technical%20Annex%20PUBLIC.pdf

[21] https://gp-patient.co.uk/Files/GPPS%20Y12%20Questionnaire%20redevelopment%20report%20v1%20PUBLIC.pdf

[22] Page 38: https://gp-patient.co.uk/downloads/archive/2018/GPPS%202018%20Technical%20Annex%20PUBLIC.pdf

borne from the placing of unchanged/minor edited questions suggested some context effect may be likely. These limitations apply to every question at a CCG and general practice level. Ipsos MORI recommend no longitudinal analyses are conducted given these impacts.

One of the main driving forces behind the GPPS changes was the need to reflect changing primary care, particularly given the GP Forward View. While we refrained from assessment of access over time due to the limitations noted above, we do provide responses to several questions in the 2018 survey below. This is to highlight the potential for the survey to be used as an evaluation tool for SWEAP in the future.

9.2. Results

9.2.1. 2018 GPPS NHS Salford CCG patient demographics

In 2018 2.2 million questionnaires were distributed.[23] The response rate was 34.1%. Patients completed via post or online or via telephone. 4,333 patients registered with a practice in NHS Salford CCG answered the questionnaire. 53 provided multi-coded or no gender and 44 multi-coded or no age. 1 patient had no deprivation band assigned. The gender, age, and deprivation distribution of respondents are provided in Table 23.

Table 23 NHS Salford CCG GP Patient Survey patient demographics

Demographic measure	***%****
Gender	
Male	49.7%
Female	50.3%
Age	
16-24	12.9%
25-34	20.3%
35-44	18.0%
45-54	16.6%
55-64	13.9%
65-74	10.6%
75-84	5.4%
85+	2.2%
Deprivation tertile	
Most deprived	62.2%
Moderately deprived	26.0%
Least deprived	11.9%

*weighted responses

[23] *https://gp-patient.co.uk/downloads/archive/2018/GPPS%202018%20Technical%20Annex%20PUBLIC.pdf*

9.2.2. Awareness of appointment times

Question 7 of the GPPS 2018 questionnaire asks: *"As far as you are aware, what general practice appointment times are available to you?"*.[24] The options and responses are provided in Table 24. Given the expansion of the SWEAP service since spring 2018 we may anticipate the proportion of patients being aware of weekday evening and weekend appointments will increase. However, it may be worth highlighting the question may be considered ambiguous with regards to whether the patient is being asked specifically about their general practice or general practice in the local area.

Table 24 GPPS patient responses to: "As far as you are aware, what general practice appointment times are available to you?"

As far as you are aware, what general practice appointment times are available to you?	%*
Before 8am on at least one weekday	13.2%
Weekdays between 8am and 6:30pm	71.1%
After 6:30pm on a weekday	12.6%
On a Saturday	4.7%
On a Sunday	1.6%

*Respondents can select more than one option

9.2.3. Satisfaction with appointment times

Question 8 of the GPPS 2018 questionnaire asks: *"How satisfied are you with the general practice appointment times that are available to you?"*. The options and responses are provided in Table 25. These responses may be considered as a baseline for future analyses seeking to understand whether SWEAP appointments have improved satisfaction with appointment times available.

Table 25 GPPS patient responses to: "How satisfied are you with the general practice appointment times that are available to you?"

How satisfied are you with the general practice appointment times that are available to you?	%*
Very satisfied	25.1%
Fairly satisfied	41.0%
Neither satisfied nor dissatisfied	16.2%
Fairly dissatisfied	9.1%
Very dissatisfied	8.6%

*Excludes those not sure when they can get an appointment

[24] *https://www.gp-patient.co.uk/downloads/archive/2018/qandletter/GPPS%202018%20Questionnaire%20PUBLIC.pdf*

The responses can also be stratified by gender and age, it would be insightful to know whether future waves of the GPPS find improvements for particular groups. For example, for the age groups that dominate SWEAP appointments, do we find improvements in satisfaction in future waves? Responses by gender and age are provided in Tables 26 and 27 respectively. There appears to be slightly greater dissatisfaction in appointment times available for males compared to females and for younger age groups.

Table 26 GPPS patient responses (by sex) to: "How satisfied are you with the general practice appointment times that are available to you?"

How satisfied are you with the general practice appointment times that are available to you?	Males (%)*	Females (%)*
Very satisfied	23.5%	26.5%
Fairly satisfied	41.7%	40.3%
Neither satisfied nor dissatisfied	15.7%	16.8%
Fairly dissatisfied	9.7%	8.6%
Very dissatisfied	9.5%	7.8%

*Excludes those not sure when they can get an appointment

Table 27 GPPS patient responses (by age) to: "How satisfied are you with the general practice appointment times that are available to you?"

How satisfied are you with the general practice appointment times that are available to you?	16-24 (%)*	25-34 (%)*	35-44 (%)*	45-54 (%)*	55-64 (%)*	65-74 (%)*	75-84 (%)*	85+ (%)*
Very satisfied	21.4%	20.1%	20.2%	26.0%	28.6%	30.9%	39.4%	31.3%
Fairly satisfied	41.5%	41.3%	40.2%	38.8%	39.4%	46.6%	41.6%	48.0%
Neither satisfied nor dissatisfied	18.7%	15.9%	20.9%	16.1%	15.1%	12.0%	9.7%	11.3%
Fairly dissatisfied	8.6%	11.4%	10.7%	8.3%	8.8%	6.5%	6.8%	5.1%
Very dissatisfied	9.8%	11.5%	7.9%	10.8%	8.1%	4.0%	2.5%	4.3%

*Excludes those not sure when they can get an appointment

9.2.4. Making an appointment

Question 11 of the GPPS 2018 questionnaire asks patients when they last tried to make a general practice appointment. Those reporting an attempt are asked who this was for (Question 12), how concerned the patient was at that time (Question 13),

what was previously done prior to trying to make the appointment (Question 14), and when they would have liked the appointment to be (Question 15). Patients are then asked whether they were offered an appointment (Question 16) and were they satisfied with the appointment(s) offered (Question 17).

Patients not taking offered appointment(s) were asked why they did not take the appointment (Question 18), included in the options are 'The appointment was too far away/too difficult to get to' (there were 12 patients reporting this in the 2018 wave) and 'There weren't any appointments at the place I wanted' (there were 22 patients reporting this in the 2018 wave). Both measures may be useful for future SWEAP assessments.

Patients taking the offered appointment(s) are asked the type of appointment they got (Question 20), included as an option is '…to see someone at another general practice location', this may be a signal for a SWEAP appointment. In the 2018 wave of the survey 87 patients reported this option. Patients are then asked how long after trying to book the appointment did the appointment take place (Question 21) and thoughts on overall experience of making an appointment (Question 22).

9.2.5. Experience of services when the patient's general practice is closed

Question 44 of the GPPS 2018 questionnaire asks whether the patient has sought NHS services when they wanted to see a GP but their GP practice was closed. For those stating contacting NHS services, Question 45 asks what happened on that occasion with one option 'I went to another general practice service', this may be a useful signal for SWEAP appointments. 33 patients reported this as an option in the 2018 wave of the GPPS. Subsequent questions ask how quickly the patient received care (Question 46), confidence and trust in the people seen (Question 47) and overall experience of NHS services when the GP practice is closed (Question 48).

9.3. Discussion

The evaluation aimed to assess impacts of the SWEAP service on patient perceptions of access using GP Patient Survey data. The ability to assess the impacts of the SWEAP service were hampered by two main factors: i) the timing of the latest GPPS survey (January to March 2018) means few patients completing the survey would have had exposure to SWEAP appointments at that time, and ii) changes to the GPPS survey in 2018 mean assessment of changes in GPPS questions over time is not feasible.

Given the changes to the survey we sought to identify how useful the survey may be for future evaluations of the SWEAP service. The new questionnaire has several measures that may be useful to monitor in future that relate to:

- Awareness of appointment times and satisfaction with these;
- Making an appointment and whether appointments were made in another general practice or declined due to being at another general practice
- Experiences of NHS services when the patient's general practice is closed and identification of whether an appointment was at another practice and thoughts on timing, confidence and overall experience of this appointment

10. Conclusions

NIHR CLAHRC GM evaluated the SWEAP scheme on behalf of NHS Salford CCG. The evaluation consisted of both qualitative and quantitative assessments of SWEAP and assessed implementation, activity and outputs generated and short-term outcomes of the scheme over the period August 2017 to July 2019.

The service was commissioned to be in line with the Association of Governing Groups definition of what an extended access service should entail. This included appointments between the hours of 18:30-20:00 on weekdays and to cover 4-6 hours at weekends. Commissioned activity included both GP and nurse appointments on weekdays, with additional disciplines at weekends (Advanced Nurse Practitioner; healthcare assistants and phlebotomy services). Appointments were to be delivered via a hub-based model with appointments located in a 'Gateway' or health centre which may be co-located with practices. Booking was via the patient's practice (largely pre-bookable) and appointments were to be face-to-face.

Initially, the delivery of the SWEAP service was neighbourhood specific, with date of activation varying over the five neighbourhoods in NHS Salford CCG. Patients registered with a GP practice in Salford could be booked onto the service if it was live in their neighbourhood. By 1st April 2018, each patient had access to the SWEAP service and could access any hub across the locality. Patient booking was via Vision Anywhere software. Software in use across the locality varies with 28 practices running Vision software and 19 running EMIS software.

10.1. Implementation

Implementation was assessed via semi-structured interviews of 18 members of staff in the locality.

The way the service was implemented led to varying experiences of the service. Though a central booking system was welcomed and deemed appropriate, the mismatch between software resulted in variation in access to patient records. IT issues at times resulted in the of sessions being cancelled and there was a perception that the ability to make onward referrals was needed. Staffing was highlighted as a major challenge both in terms of attracting staff and ensuring availability of staff to perform prescribing roles (limiting the potential to deliver ANP appointments). The locality made efforts to strengthen recruitment including expansion of sessions and coverage of medical indemnity which appear to have helped improved matters. Staff felt all necessary equipment was in place but the use

of Gateway buildings could be constraining with limits on physical access to buildings in non-core hours.

There was variation in ‘buy-in’ across the locality, resulting in variations in patient awareness of the service. Whilst some practices actively advertised and offered SWEAP appointments routinely, some did not. Various explanations were offered to account for differing propensity to offer the service to patients by practices. Most clinicians felt the impact on core hours and other sectors of the health service to be minimal but broadly welcomed the expansion of patient choice and likely impacts on waiting times.

10.1.1. Recommendations

- For a more comprehensive delivery of the service, the ability to obtain full patient records for EMIS practices (with all documents attached to the file) would prove beneficial. So too would increasing capacity to make onward referrals as in core hours.
- Patient awareness is driven by practice engagement, running the risk that the service is a poor reflection of patient demand for the service and resulting in a potential for inequity in provision. The service could be advertised more broadly.
- The centralised booking system works well and extending patient access through offering online appointment booking could be considered.
- Reliability of service provision should be improved. This could be achieved through better workforce planning and management – to avoid staff shortages and better co-ordinated IT support – to avoid system failures.
- To meet the challenge of providing a service that requires IT systems that run in different organisations, co-ordinated IT support is needed, including designated individuals within organisations who also co-ordinate with one another.
- The potential impact of different groups within the primary care workforce, such as GPs already working in local practices, or locums, providing the sessions, should be evaluated, including in terms of the impact on GP workload and wellbeing as well as patient care and experience.
- Greater clarity of communication about the availability of appointments is needed, in particular reiteration or reassurance to practice staff about booking appointments at any hub. It is important that reception staff in particular are informed about this as they have the role of booking appointments.

10.2. Activity and outputs generated

Activity and outputs generated were assessed via appointment data provided by NHS Salford CCG.

Over the period 17th August 2017 to 30th June 2019 a total of 19,541 SWEAP appointments were available to book. 67.61% of appointments were booked and attended, 20.85% were booked and not attended (DNA). 5.07% and 6.47% were cancelled and not booked respectively. Provision varied by neighbourhood, largely reflecting the different points of activation of the service. In 2018/19 similar volumes of appointments were seen in each neighbourhood besides Ordsall and Claremont which provided less than 50% of appointments seen in the other four neighbourhoods. Appointments per 1,000 however found that three neighbourhoods provided roughly 51-54 appointments per 1,000 over 2018/19, and one (Broughton) providing 35 per 1,000 and one 14 per 1,000 (Ordsall and Claremont). Similar appointment times were provided across neighbourhoods though the volume of appointments available varied. In each over 85% of appointments were with a GP. Expansion of disciplines was seen from September 2018.

Commissioned activity amounted to 47,320 appointments per financial year in the example provided in Table 1, at a cost of £1,296,724 (£27.40 per appointment). Actual provision was much lower (10,487 in 2018/19 at a cost of £123.65 per appointment). Activity to June 2019/20 suggest this is improving with 4,444 appointments provided in that quarter at a cost of £61.24 per appointment. The high costs of actual provision compared to commissioning provision may be reflective of either i) fewer appointments provided than intended, and/or ii) the scale of provision of relatively more expensive GP appointments.

Saturday had the smallest proportion of appointments booked and attended, with Sunday only marginally greater. The provision of appointments on Saturday or Sunday was over twice that of weekdays. Total appointments booked (attended and DNA) exceeded 90% for weekdays and 84% on both weekend days. There appears to be little excess capacity in the service. Provision fluctuated over the period with an increase to spring 2018 followed by a dip and increase from September 2018.

Attendees were similar across neighbourhoods. In 2018/19, 56% of appointees were female and over 80% in age group 16-64. Users of the SWEAP service appear to be disproportionately female and of working age compared to registered patients in the locality and core hour users seen in survey data. In four neighbourhoods, the use of appointments is dominated by 1-3 practices; this is less prominent in Little Hulton and Walkden. In Swinton, which has fewer practices in total, use of appointments was more equitably distributed.

10.2.1. Recommendations

- While the activity data to date suggests there has been little excess capacity in the service, this may not necessarily mean service expansions will see similar rates of bookings. Increasing provision needs to be monitored to ensure the service is running as efficiently as possible and reflects demand.

- Where excess capacity is observed the service may consider reducing volume of appointments, particularly later in the day on weekends where the proportion of appointments booked was found to be lower.
- There was some evidence that the volume of available appointments on a Friday was lower than other weekdays. Future work could investigate whether this is a workforce staffing issue; if unresolvable, the service may wish to increase volume on other days to match this shortfall.
- Patient bookings being via the patient's home practice and the availability of appointments being dependent on workforce and IT systems mean the activity observed in the evaluation may be more reflective of supply capacity rather than demand for the system. Monitoring of the service as workforce and IT systems develop would help identify appropriate levels of provision.
- The service experiences a high rate of DNAs. Reasons for this should be explored and measures (for example, SMS reminder services) to improve rates should be considered.
- It would be beneficial to engage with practices to understand the rationale for low/medium or high use of the service. If location of the hub is a dominating factor then equity of access would be a point of discussion for future considerations of location, which could be informed by the geographic locations of practices with little/no use of the service.
- Enabling patients to book into the service directly would help eliminate variations in practice buy-in. A recent study found the introduction of a call centre improved the booking process and resulted in 80-90% of appointments being self-referrals.[25]
- The recording of patient demographics including ethnicity and deprivation, would enable assessments of the types of patients using the service and types of the service (e.g. by day, discipline) to evaluate the equity of provision and uptake. This information may help future commissioning of the service at neighbourhood levels.
- 2018/19 and the data for 2019/20 so far saw costs per appointment significantly greater than that commissioned. An understanding of scale of provision, uptake by time/location and unit cost per appointment provided would make it possible to identify potential efficiency saving in the service. Should the cost be driven by greater workforce costs then greater skill-mix in provision should be considered.
- Enabling Advanced Nurse Practitioners to prescribe is one action that could address workforce shortages. This would involve considering possible workarounds for the use of spurious codes for prescribing through SWEAP.
- Limited variation in appointment time, discipline, and booking mode across neighbourhoods mean comparisons of alternative set ups of the service was not possible. As the provision of appointments by Advanced Nurse

[25] Nuffield Trust, Improving access out of hours. Evaluation of extended-hours primary care access hubs. [cited April 2019]. Available from: https://www.nuffieldtrust.org.uk/files/2019-05/bhr3-report-b1881-rgb-3.pdf

Practitioners, Healthcare Assistants and practice nurses increase then a clearer understanding of the most effective skill-mix would be possible to inform future commissioning.

10.3. Short-term outcomes

Short-term outcomes were assessed via a survey of SWEAP patients, a clinical audit of appointments and changes in contacts in A&E, NHS 111 and Out of Hours services.

We assessed patient responses of a survey delivered and produced by the SWEAP service to SWEAP patients. NIHR CLAHRC GM had no input into the content of the survey or process of delivery. The survey respondents were similar in age to those booking and attending SWEAP appointments but differed in terms of gender and neighbourhood with survey respondents being disproportionately female and with Swinton and Walkden hubs being over-represented. These discrepancies should be considered when assessing the findings of the survey.

SWEAP patients appear to primarily be using the service due to increased availability rather than the impacts on waiting times. 52% of respondents to the survey attended due to a lack of availability of core hour appointments and 19% as the appointment was sooner than the next available core-hour appointment. The service was valued by patients with 99% claiming they would use the service again and 98% saying they would be extremely likely or likely to recommend the service to family and friends.

Survey responses highlighted the service may not be primarily used for emergency care. Had they not used the service then 63% of patients state they would have waited for a routine appointment in core hours, 17% would have contacted NHS 111 and 14% would have attended A&E.

To inform the impacts of the SWEAP service on patients and general practice a clinical audit was performed. The audit was conducted by an experienced GP in the NIHR CLAHRC GM team. The GP assessed patient records of 211 appointment users over 7 practices.

94% of clinical notes were considered satisfactory or reasonable with some omissions. 74% of appointments were considered to be for minor problems. Whilst there was some evidence of patients needing to re-consult with core-hour services (24% of patients sampled), it was felt that for 75% of these instances the SWEAP appointment added value to care. This results in 8% of appointments resulting in a duplication of work in core hours. However, in 48% of SWEAP appointments there were impacts on core hours with additional follow-up work (such as sending referral letters).

10.3.1. Recommendations (based on survey of SWEAP patients and clinical audit)

- The survey of SWEAP patients and clinical audit suggest there are likely to be impacts on core hours activity, reducing pressure (survey) whilst increasing workload (clinical audit). It is currently unknown the implications of the SWEAP service on access to core hour appointments. The CCG could conduct a targeted review of impact in core hours activity in a limited number of practices.
- There was some evidence that set-up problems such as the lack of full patient notes and inability to conduct onward referrals resulted in duplication and increased core hour activity. Providing access to notes for EMIS patients and enabling onward referrals may alleviate some of the implications of the SWEAP service on core hours.

Reductions in minor A&E attendance and cost, self-referral minor A&E attendance and cost, NHS 111 contacts, and OOH contacts were found in the SWEAP period for NHS Salford CCG as a whole. Impacts varied by neighbourhood and were unreflective of provision seen in the appointments data. There, Pendleton had the smallest amount of attendance per 1,000 residents yet but experiences the largest reductions in the impact analysis. Comparing impacts for high and low dose practices also presented a mismatch of impacts with higher use of appointments. For all A&E attendance and NHS 111 measures, the estimated change in high dose practices (those with more than 100 appointments booked per 1,000 registered patients) is smaller than that seen in the low dose practices. These findings contrast with similar approaches comparing hub-based practices to non-hub practices in other pilots elsewhere in England.[26] These lack of connection between use of SWEAP and greater impact casts doubt over whether the analyses is really identifying the effects of SWEAP or other factors. For OOH, on the other hand, there is some evidence that high dose practices had a reduction in OOH contacts and no change for low dose practices.

Caution is needed due to the inability to obtain a comparison group of practices that would net out any trend effects. This is particularly a problem for measures such as A&E costs that appeared to trend prior to SWEAP introduction. Having a comparator group would also enable the effects of other initiatives to be removed from the

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[26] *Dalton P, Pathania V. Can increased primary care access reduce demand for emergency care? Evidence from England's 7-day GP opening. J Health Econ 2016;49:193-208.*
NIHR CLAHRC Greater Manchester. GM Primary Care 7-Day Access Evaluation. [cited 2017 March]. Available from: https://www.clahrc-gm.nihr.ac.uk/media/Resources/OHC/GM-Primary-Care-7-day-access-report-evaluation.pdf
Nuffield Trust, Improving access out of hours. Evaluation of extended-hours primary care access hubs. [cited April 2019]. Available from: https://www.nuffieldtrust.org.uk/files/2019-05/bhr3-report-b1881-rgb-3.pdf

estimated effect of SWEAP. At present any initiatives occurring either before or after SWEAP activation could bias the estimated effects. This is a likely possibility due to the presence of a GP streaming service (September 2017 to November 2018) and urgent care models in various forms to April 2019.

10.3.2. Recommendations (based on A&E, NHS 111, and Out of Hour contacts)

- Comparing changes to those observed in similar areas without an extended access service would enable trends and nationwide initiatives to be removed from any estimated effect on other areas of service.[27] A more appropriate approach to estimating the impacts of the SWEAP service would be available with the release of Hospital Episode Statistics (for secondary care measures) in winter or spring of 2019/20.

We considered the use of the GP Patient Survey to assess whether there are changes in patient perceptions of access to general practice due to the SWEAP service. The timing of the latest available survey (January-March 2018) means few patients would have had exposure to the service. In addition, the survey underwent significant changes in 2018 making comparisons to earlier waves of the survey infeasible.

10.3.3. Recommendations (based on GP Patient Survey assessment)

- Given the changes to the GP Patient Survey in 2018 we sought to identify how useful the survey may be for future evaluations of the SWEAP service. The new questionnaire has several measures that may be useful to monitor in future that relate to:
    - Awareness of appointment times and satisfaction with these
    - Making an appointment and whether appointments were made in another general practice or declined due to being at another general practice
    - Experiences of NHS services when the patient's general practice is closed and identification of whether an appointment was at another practice and thoughts on timing, confidence and overall experience of this appointment

10.4. Deviations from protocol:

There were a number of deviations to the planned analyses proposed in the evaluation protocol. For the activity/appointment analyses we had planned to explore the purpose of an appointment but this was not recorded in the dataset received by

[27] E.g. Whittaker W, Anselmi L, Kristensen S, et al. Associations between extending access to primary care and emergency department visits: a difference-in-differences analysis. *PLoS Med* 2016;13(9):e1002113

NHS Salford CCG. We had planned to assess uptake of face-to-face and telephone appointments but all appointments were face-to-face.

We had planned to assess ethnicity and deprivation of SWEAP patients but ethnicity was poorly recorded in the data provided and no deprivation data were available. Our analyses of demographics of SWEAP patients was also limited as the data were not provided at an appointment level but aggregated, making interactions of age and gender not possible. Should data subsequently be made available at an appointment level then a more detailed assessment such as that conducted in the evaluation of six CCGs in Greater Manchester would be possible and this could help inform future commissioning/variations of services delivered.[28]

[28] *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.*
https://bmjopen.bmj.com/content/9/9/e028138.info

11. Recommendations

1. For a more comprehensive delivery of the service, the ability to obtain full patient records for EMIS practices would prove beneficial. So too would the ability to make onward referrals.
2. Patient awareness is driven by practice engagement, running the risk that the service is a poor reflection of patient demand for the service and resulting in a potential for inequity in provision. The service could be advertised more broadly.
3. The centralised booking system works well and extending patient access through offering online appointment booking could be considered.
4. Reliability of service provision should be improved. This could be achieved through better workforce planning and management – to avoid staff shortages and better co-ordinated IT support – to avoid system failures.
5. To meet the challenge of providing a service that requires IT systems that run in different organisations, co-ordinated IT support is needed, including designated individuals within organisations who also co-ordinate with one another.
6. The potential impact of different groups within the primary care workforce, such as GPs already working in local practices, or locums, providing the sessions, should be evaluated, including in terms of the impact on GP workload and wellbeing as well as patient care and experience.
7. Greater clarity of communication about the availability of appointments is needed, in particular reiteration or reassurance to practice staff about booking appointments at any hub. It is important that reception staff in particular are informed about this as they have the role of booking appointments.
8. While the activity data to date suggests there has been little excess capacity in the service, this may not necessarily mean service expansions will see similar rates of bookings. Increasing provision needs to be monitored to ensure the service is running as efficiently as possible and reflects demand.
9. Where excess capacity is observed the service may consider reducing volume of appointments, particularly later in the day on weekends where the proportion of appointments booked was found to be lower.
10. There was some evidence that the volume of available appointments on a Friday was lower than other weekdays. Future work could investigate whether this is a workforce staffing issue; if unresolvable, the service may wish to increase volume on other days to match this shortfall.
11. Patient bookings being via the patient's home practice and the availability of appointments being dependent on workforce and IT systems mean the activity observed in the evaluation may be more reflective of supply capacity rather than demand for the system. Monitoring of the service as workforce and IT systems develop would help identify appropriate levels of provision.

12. The service experiences a high rate of DNAs. Reasons for this should be explored and measures (for example, SMS reminder services) to improve rates should be considered.
13. It would be beneficial to engage with practices to understand the rationale for low/medium or high use of the service. If location of the hub is a dominating factor then equity of access would be a point of discussion for future considerations of location, which could be informed by the geographic locations of practices with little/no use of the service.
14. Enabling patients to book into the service directly would help eliminate variations in practice buy-in. A recent study found the introduction of a call centre improved the booking process and resulted in 80-90% of appointments being self-referrals.[29]
15. The recording of patient demographics including ethnicity and deprivation, would enable assessments of the types of patients using the service and types of the service (e.g. by day, discipline) to evaluate the equity of provision and uptake. This information may help future commissioning of the service at neighbourhood levels.
16. 2018/19 and the data for 2019/20 so far saw costs per appointment significantly greater than that commissioned. An understanding of scale of provision, uptake by time/location and unit cost per appointment provided would make it possible to identify potential efficiency saving in the service. Should the cost be driven by greater workforce costs then greater skill-mix in provision should be considered.
17. Enabling Advanced Nurse Practitioners to prescribe is one action that could address workforce shortages. This would involve considering possible workarounds for the use of spurious codes for prescribing through SWEAP.
18. Limited variation in appointment time, discipline, and booking mode across neighbourhoods mean comparisons of alternative set ups of the service was not possible. As the provision of appointments by Advanced Nurse Practitioners, Healthcare Assistants and practice nurses increase then a clearer understanding of the most effective skill-mix would be possible to inform future commissioning.
19. The survey of SWEAP patients and clinical audit suggest there are likely to be impacts on core hours activity, reducing pressure (survey) whilst increasing workload (clinical audit). It is currently unknown the implications of the SWEAP service on access to core hour appointments. The CCG could conduct a targeted review of impact in core hours activity in a limited number of practices.
20. There was some evidence that set-up problems such as the lack of full patient records (e.g., relevant letters attached to patient files) and barriers to conduct some onward referrals resulted in duplication and increased core hour activity. Providing access to complete records for EMIS patients and efforts to support

[29] Nuffield Trust, Improving access out of hours. Evaluation of extended-hours primary care access hubs. [cited April 2019]. Available from: https://www.nuffieldtrust.org.uk/files/2019-05/bhr3-report-b1881-rgb-3.pdf

the onward referral process may alleviate some of the implications of the SWEAP service on core hours.

21. Comparing changes to those observed in similar areas without an extended access service would enable trends and nationwide initiatives to be removed from any estimated effect on other areas of service.[30] A more appropriate approach to estimating the impacts of the SWEAP service would be available with the release of Hospital Episode Statistics (for secondary care measures) in winter or spring of 2019/20.
22. Given the changes to the GP Patient Survey in 2018 we sought to identify how useful the survey may be for future evaluations of the SWEAP service. The new questionnaire has several measures that may be useful to monitor in future that relate to:
    a. Awareness of appointment times and satisfaction with these
    b. Making an appointment and whether appointments were made in another general practice or declined due to being at another general practice
    c. Experiences of NHS services when the patient's general practice is closed and identification of whether an appointment was at another practice and thoughts on timing, confidence and overall experience of this appointment

[30] E.g. Whittaker W, Anselmi L, Kristensen S, et al. Associations between extending access to primary care and emergency department visits: a difference-in-differences analysis. *PLoS Med* 2016;13(9):e1002113

12. Appendices

Appendix 1: Neighbourhood hub activity

Broughton – Broughton hub

The Broughton neighbourhood hub is located at Newbury Place, the only hub not located in a neighbourhood 'Gateway' building, and was activated on 16th January 2018. The analysis presented here covers appointments from this activation date to 30th June 2019, a total of 17.5 months. Over this period 3,920 appointments were made available (Table A 1). Fewer appointments were available on Thursdays and Fridays in Broughton, with no sessions running on these days in the 2019/20 financial wave to 30th June 2019. At weekends, more appointments were available on Sundays and Saturdays, the opposite to the provision across Salford CCG as a whole.

Table A 1. Total Broughton extended access provision by financial year and day of week

Financial Wave	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
2017/18	59	54	52	47	48	144	172	**576**
2018/19	374	386	349	28	51	369	789	**2,346**
2019/20	96	156	132	-	-	302	312	**998**
Total (day)	**529**	**596**	**533**	**75**	**99**	**815**	**1273**	**3,920**

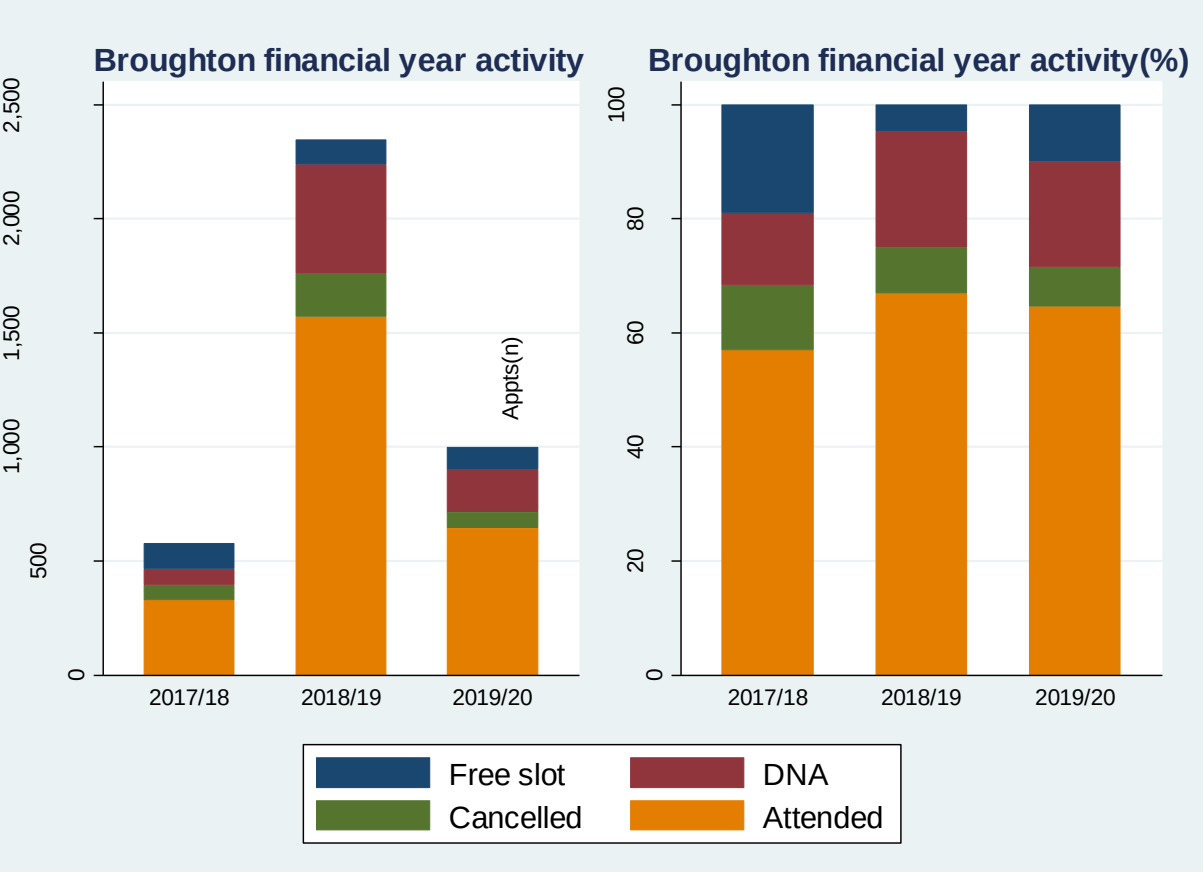
Appointment activity

Of the 3,920 appointments available, 2,541 were booked and attended (64.82%), 736 were booked and not attended (18.78%), 323 were booked and subsequently cancelled (8.24%) and the remaining 320 (8.16%) were not booked at all (Table A 2 and Figure A 1). Attendance rates were highest in financial year 2018/19, with attendance declining a little for 2019/20 so far. Only 4.69% (n=110) of appointments in 2018/19 were not booked at all, rising in the first quarter of 2019/20 to 10.02% (n=100).

Table A 2. SWEAP activity by financial year in Broughton

Financial wave	Attended (%)	DNA (%)	Cancelled (%)	Not booked (%)	Total
2017/18	328 (56.94)	73 (12.67)	65 (11.28)	110 (19.10)	**576**
2018/19	1,569 (66.88)	479 (20.42)	188 (8.01)	110 (4.69)	**2,346**
2019/20	644 (64.53)	184 (18.44)	70 (7.01)	100 (10.02)	**998**
Total	**2,541 (64.82)**	**736 (18.78)**	**323 (8.24)**	**320 (8.16)**	**3,920**

Figure A 1. SWEAP activity by financial year - Broughton



Activity by day of week

Table A 3 and Figure A 2 show SWEAP appointment activity by day of week in Broughton, covering all appointments since the Broughton hub was activated. Attendance at weekends was lower than for weekend appointments, with 57.91% (n=472) booking and attending Saturday appointments and 60.02% (n=764) on Sundays. DNA rates were also higher at weekends, though Monday and Wednesday sessions had similar rates. Thursdays and Fridays had the fewest available

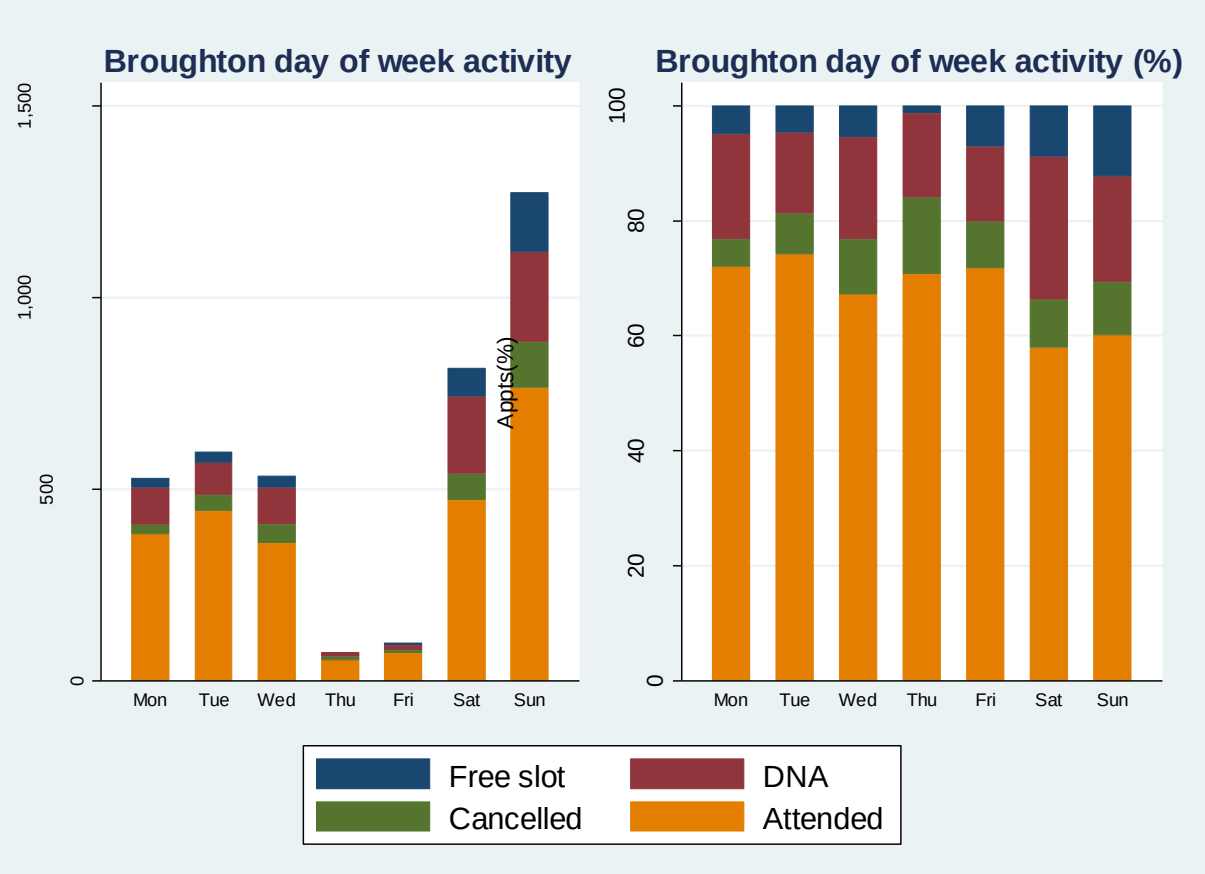
appointments, with 1.91% (n=75) of all appointments available on Thursdays, and 2.53% (n=99) on Fridays.

Table A 3. SWEAP activity by day of week in Broughton

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
Attended (%)	381 (72.02)	442 (74.16)	358 (67.17)	53 (70.67)	71 (71.72)	472 (57.91)	764 (60.02)	2,541 (64.82)
DNA (%)	97 (18.34)	84 (14.09)	95 (17.82)	11 (14.67)	13 (13.13)	202 (24.79)	234 (18.38)	736 (18.78)
Cancelled (%)	25 (4.73)	42 (7.05)	51 (9.57)	10 (13.33)	8 (8.08)	68 (8.34)	119 (9.35)	323 (8.24)
Not booked (%)	26 (4.91)	28 (4.70)	29 (5.44)	1 (1.33)	7 (7.07)	73 (8.96)	156 (12.35)	320 (8.16)
Total* (%)	529 (13.49)	596 (15.20)	533 (13.60)	75 (1.91)	99 (2.53)	815 (20.79)	1,273 (32.47)	3,920 (100.00)

*% totals are the percentage of total appointments provided

Figure A 2. SWEAP appointment activity by day of week - Broughton



Activity by day and time

Figures A 3 and A 4 show SWEAP appointment activity for Broughton by timeslot for weekdays and weekend days respectively. On weeknights, SWEAP in Broughton initially ran from 18:30-20:00, with rates of attendance similar across time slots. Later appointments (20:00 and 20:15 slots) were added to the SWEAP provision, and have seen similar rates of attendance compared to the existing earlier appointment slots. Weekend sessions ran from 09:30-12:30 on Saturdays and Sundays, with the earliest slots (09:30-10:15) having the highest attendance. The final slot, 12:15, was the least well attended for both days

Figure A 3. Appointment activity by weekday and time - Broughton

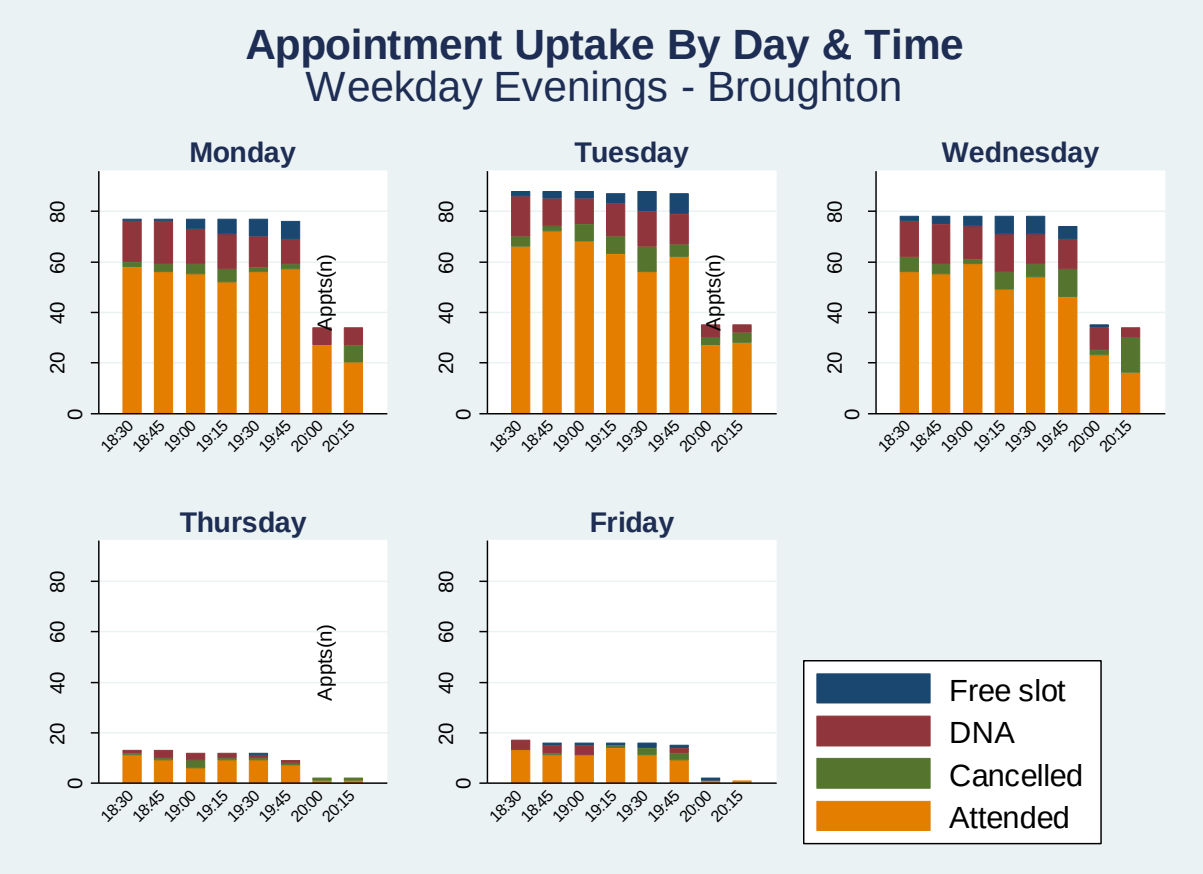
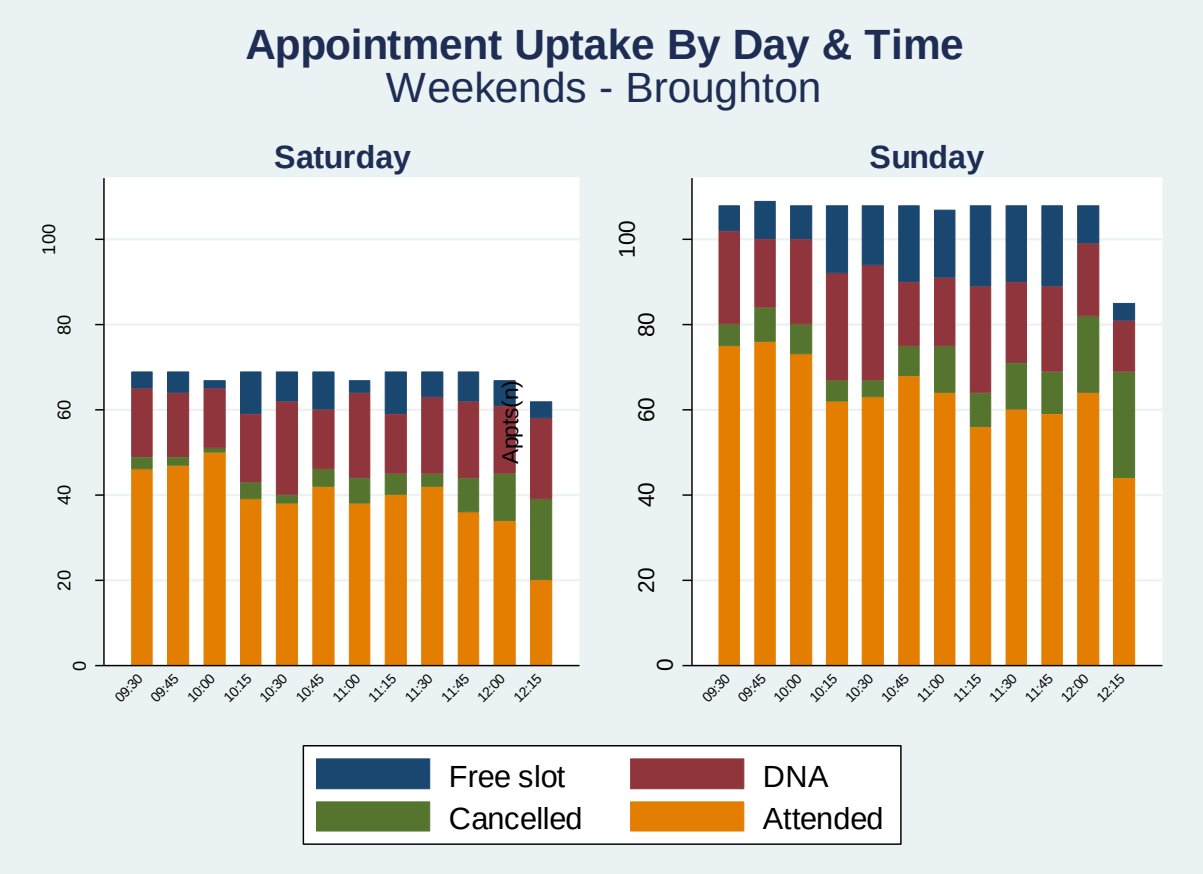


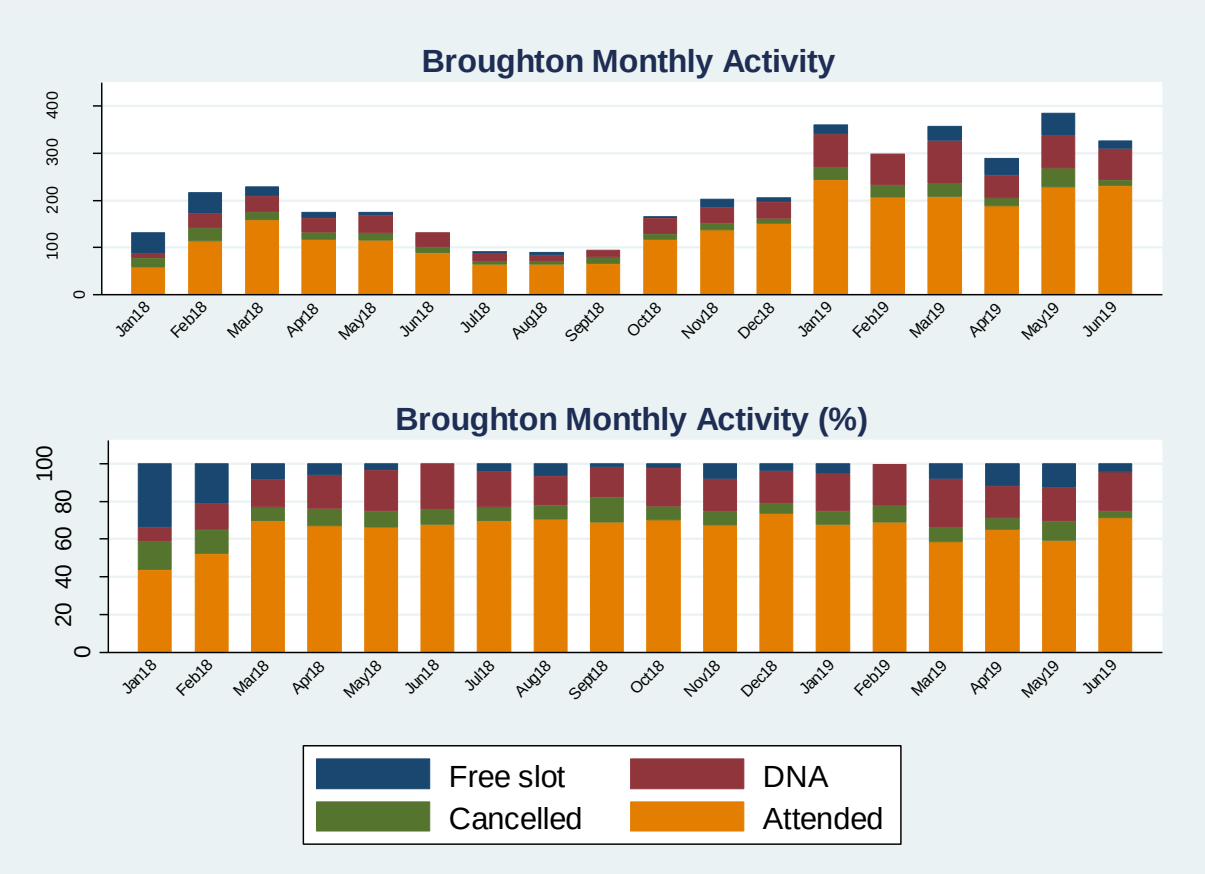
Figure A 4. SWEAP appointment activity by weekend day and time – Broughton



Activity by month

SWEAP activity by month is shown in Figure A 5, beginning in January 2018. After an initial increase after launch, available appointments dropped in Broughton across the summer of 2018, with provision starting to increase from October 2018. After rising over the first few months after activation, attendance has remained relatively constant over time, despite the fluctuating nature of the number of appointments provided.

Figure A 5. SWEAP appointment activity by month - Broughton



Provision by clinician type

As with the other neighbourhoods, and Salford CCG as a whole, Broughton appointments were primarily delivered by GPs, representing 82.86% (n=3,248) of all provision (Table A 4). HCA appointments were introduced during the 2018/19 financial year, representing 15.99% (n=627) of all Broughton appointments. More than ¼ of appointments in the current financial year (26.35%, n=263) were provided by HCAs.

Table A 4. SWEAP appointments by wave and clinician type - Broughton

Financial wave	2017/18	2018/19	2019/20	All
GP (%)	558 (96.88)	1,982 (84.48)	708 (70.94)	**3,248 (82.86)**
ANP (%)	18 (3.13)	0 (0.00)	0 (0.00)	**18 (0.46)**
Nurse (%)	0 (0.00)	0 (0.00)	27 (2.71)	**27 (0.69)**
HCA (%)	0 (0.00)	364 (15.52)	263 (26.35)	**627 (15.99)**
Total	**576**	**2,346**	**998**	**3,920**

Uptake by practice

Newbury Green – co-located with the Broughton hub but entirely separate to the SWEAP service, had the highest reported volume of appointments across the area (Figure A 6). For the 3.5 months of 2017/18 included, Newbury Green had the highest rate of attendance per 1,000 patients, with Limefield Road leading this for both 2018/19 and 2019/20 waves. Leicester Road and Lower Broughton 4 had the lowest engagement with the service, both in terms of overall appointments, and also in the rate of appointments per 1,000 patients (Figure A 7). No appointments were recorded for Blackfriars.

Figure A 6. Practice uptake – Broughton

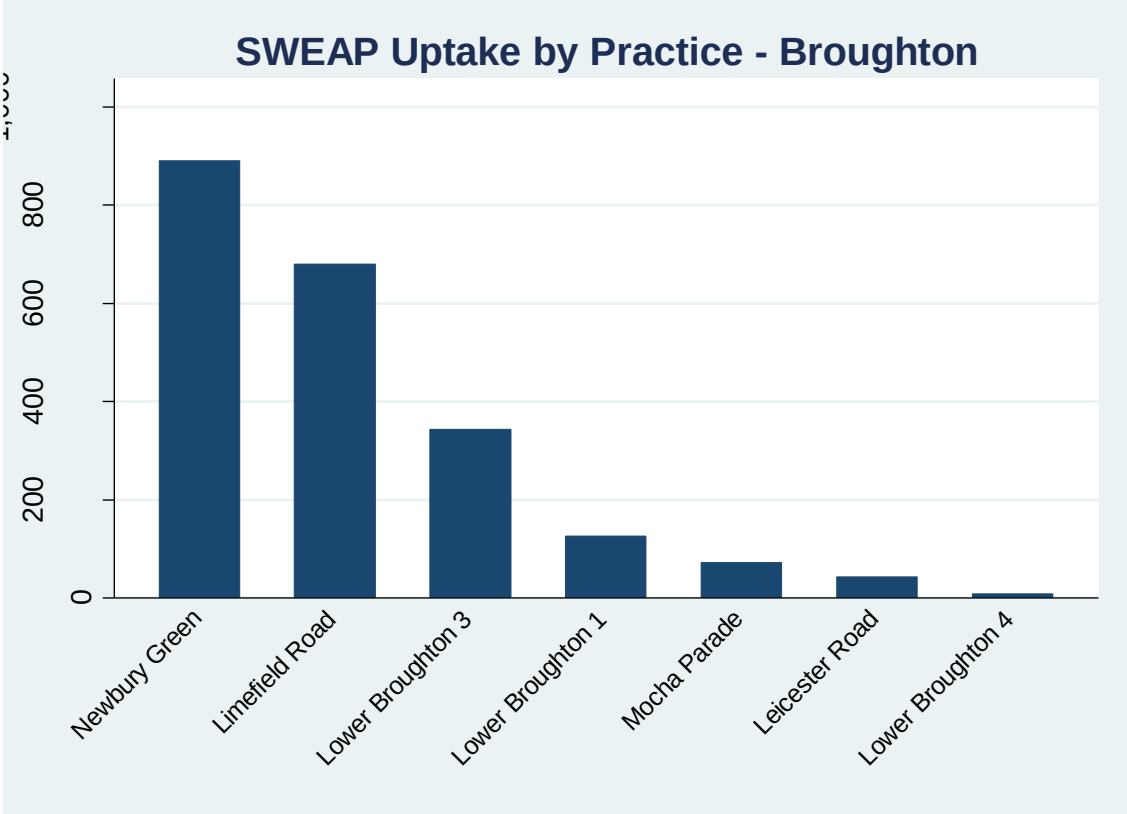
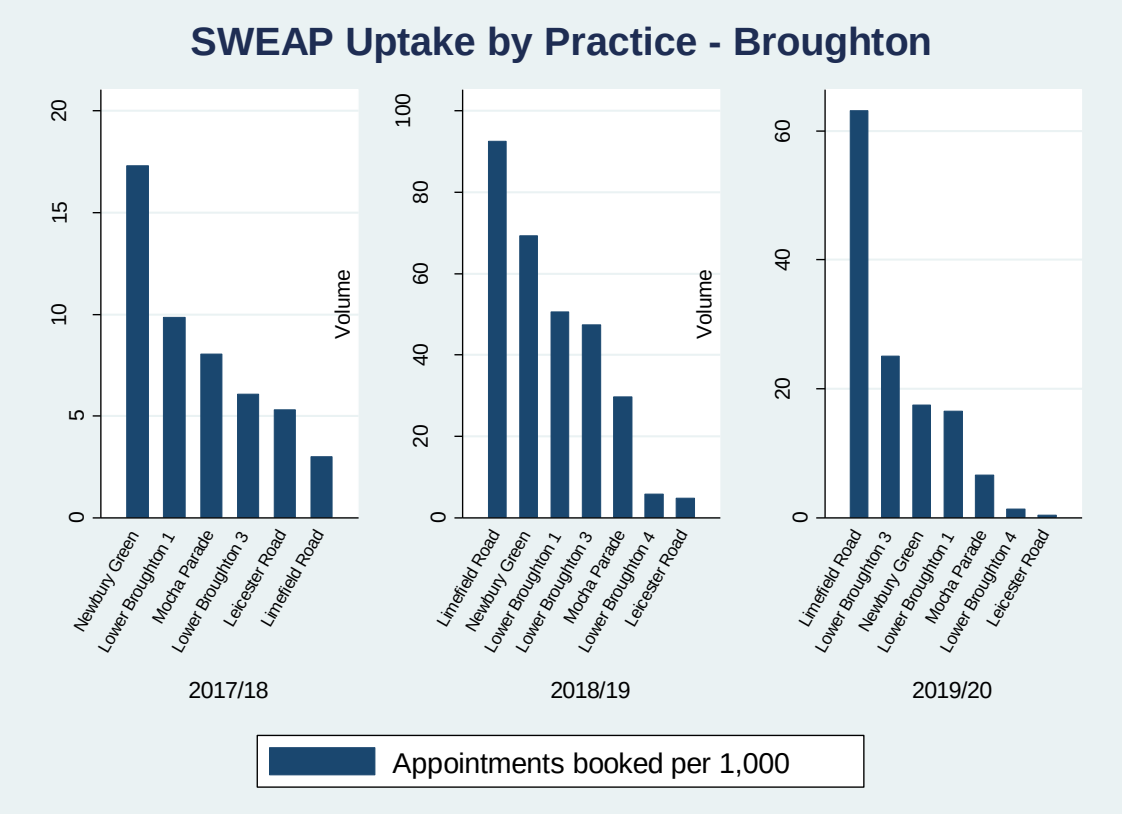


Figure A 7. Practice uptake (per 1000 patients) by financial year – Broughton



Eccles and Irlam – Eccles hub

The Eccles and Irlam neighbourhood hub is located at Eccles Gateway and was activated on 9th October 2017, the second hub to go live. This analysis covers just under 21 months of appointment activity – almost six months of financial year 2017/18, all of 2018/19 and the first three months of 2019/20. Over this period a total of 5,512 appointments were made available (Table A 5). Provision on weekdays was lowest overall on Fridays and highest on Thursdays. As with Salford CCG aggregate provision, more appointments were made available on Saturdays than Sundays.

Table A 5.Total Eccles extended access provision by financial year and day of week

Financial Wave	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
2017/18	104	128	144	145	108	664	396	**1,689**
2018/19	204	138	129	203	177	862	929	**2,642**
2019/20	94	92	86	84	45	357	423	**1,181**
Total (day)	**402**	**358**	**359**	**432**	**330**	**1,883**	**1,748**	**5,512**

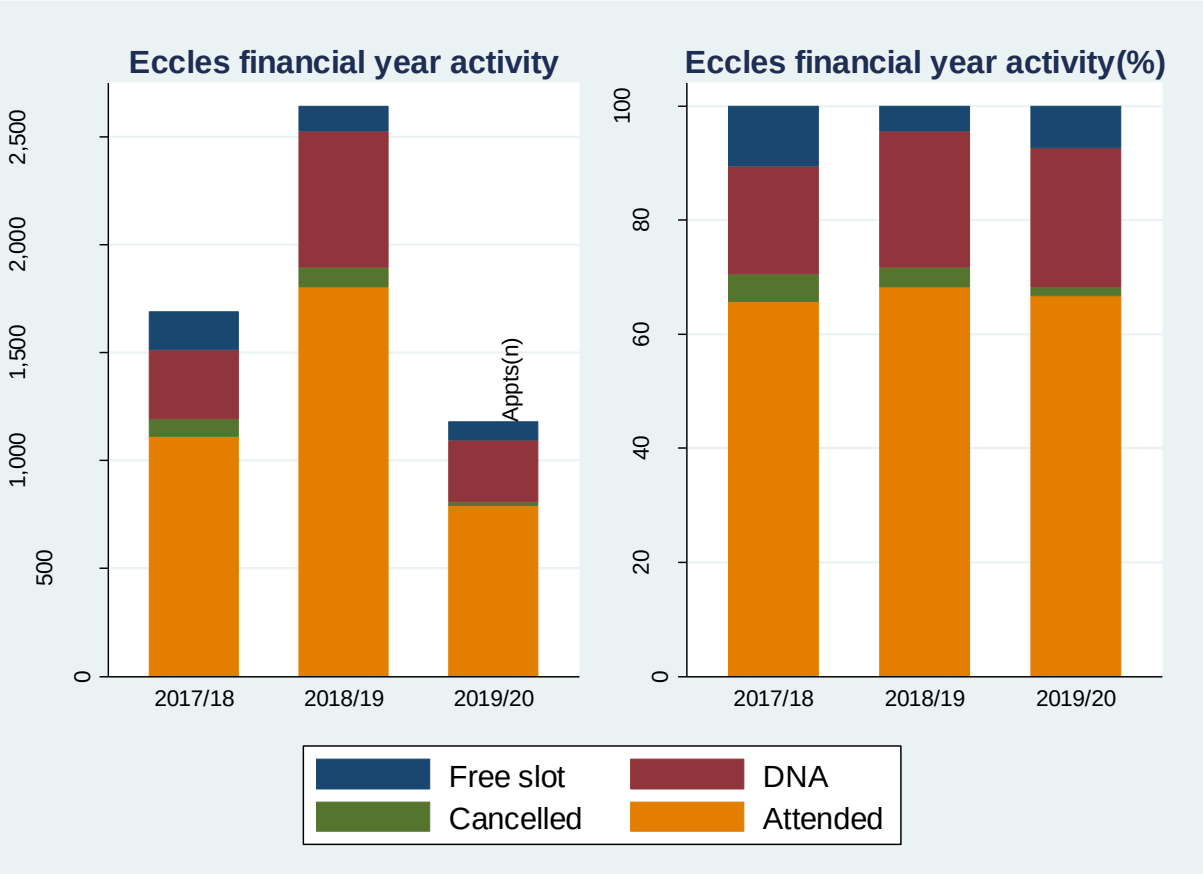
Appointment activity

Of the 5,512 appointments provided, 3,695 were booked and attended (67.04%), 1,238 were booked and not attended (22.46%), 195 were booked and subsequently cancelled (3.52%), whilst the remaining 385 were not booked at all (6.98%) (Table A 6 and Figure A 8). Provision decreased in financial year 2018/19 compared to 2017/18, but – if the provision for the first quarter holds constant – will rise from 2,642 to 4,724 appointments in 2019/20. Attendance has been relatively constant across all financial years, but cancellation rates have decreased whilst DNA rates have increased year on year.

Table A 6.SWEAP activity by financial year in Eccles

Financial wave	Attended (%)	DNA (%)	Cancelled (%)	Not booked (%)	Total
2017/18	1,108 (65.60)	319 (18.89)	83 (4.91)	179 (10.60)	**1,689**
2018/19	1,800 (68.13)	631 (23.88)	93 (3.52)	118 (4.47)	**2,642**
2019/20	787 (66.44)	288 (24.39)	18 (1.52)	88 (7.45)	**1,181**
Total	**3,695 (67.04)**	**1,238 (22.46)**	**194 (3.52)**	**385 (6.98)**	**5,512**

Figure A 8. SWEAP activity by financial year - Eccles



Activity by day of week

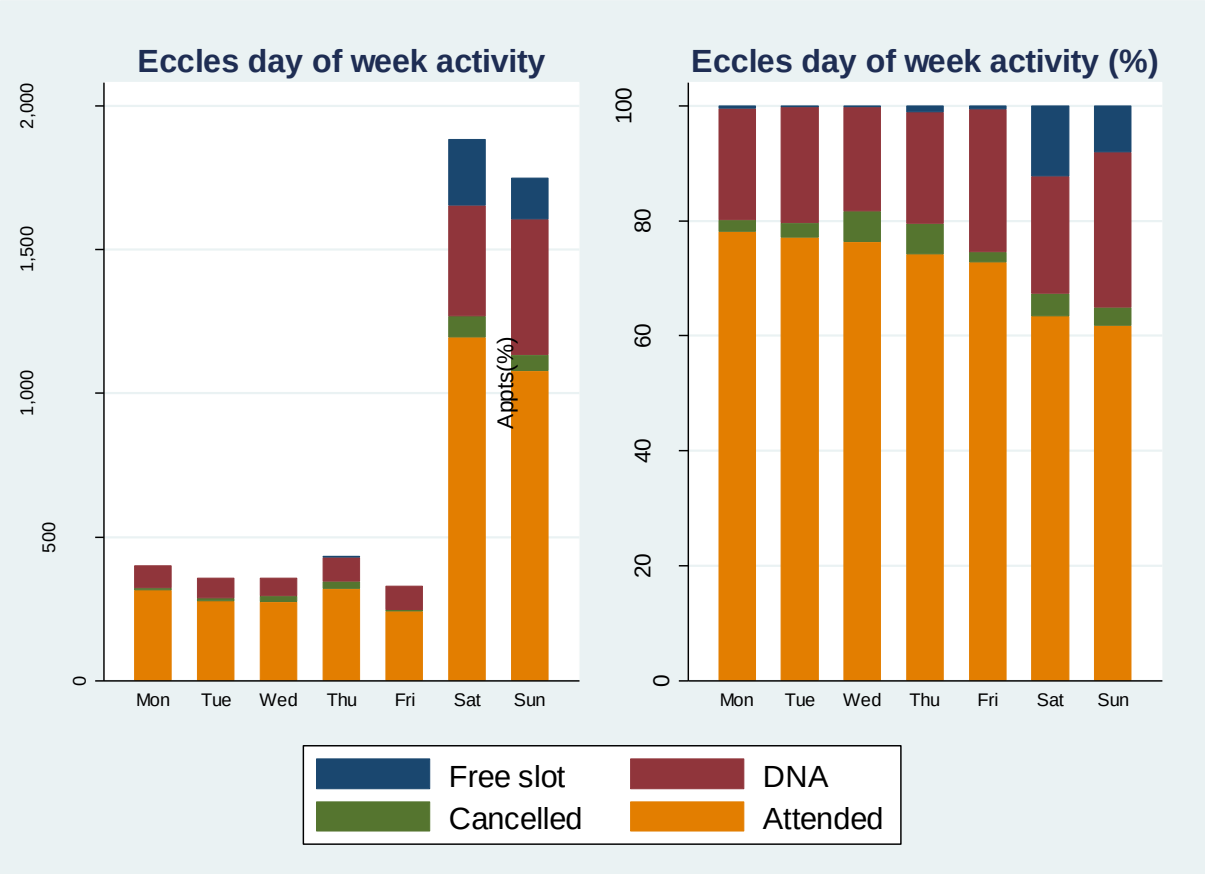
Activity by day of week is provided in Table A 7 and Figure A 9. 65.87% (n=3,631) of all appointments were provided on Saturdays and Sundays, with the Saturday provision being slightly higher (1,883 appointments on Saturdays compared to 1,748 on Sundays). The weekend appointments also saw the lowest attendance rates across the week, with 63.36% attendance on Saturdays and 61.67% on Sundays. 12.27% of Saturday appointments were not booked at all, the highest rate of the week. DNA rates were highest on Sundays (27.00%) and Fridays (24.85%). Overall provision was lowest on Fridays, with 5.99% of all appointments offered on this day.

Table A 7. SWEAP activity by day of week in Eccles

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
Attended (%)	314 (78.11)	276 (77.09)	274 (76.32)	320 (74.07)	240 (72.73)	1,193 (63.36)	1,078 (61.67)	**3,695 (67.04)**
DNA (%)	78 (19.40)	72 (20.11)	65 (18.11)	84 (19.44)	82 (24.85)	385 (20.45)	472 (27.00)	**1,238 (22.46)**
Cancelled (%)	8 (1.99)	9 (2.51)	19 (5.29)	23 (5.32)	6 (1.82)	74 3.93)	55 (3.15)	**194 (3.52)**
Not booked (%)	2 (0.50)	1 (0.28)	1 (0.28)	5 (1.16)	2 (0.61)	231 (12.27)	143 (8.18)	**385 (6.98)**
Total* (%)	**402 (7.29)**	**358 (6.49)**	**359 (6.51)**	**432 (7.84)**	**330 (5.99)**	**1,883 (34.16)**	**1,748 (31.71)**	**5,512 (100.00)**

*% totals are the percentage of total appointments provided

Figure A 9. SWEAP activity by day of week - Eccles



Activity by day and time

Figures A 10 and A 11 show appointment activity by timeslot for weekdays and weekends respectively. Appointments have run with some consistency on each day. More recently appointments have been made available at 20:00 and 20:15 Mondays to Thursdays, and less frequently on Fridays. Attendance at weekends was lower, but relatively consistent across timeslots. Attendance was slightly lower in the 12:00 and 12:15 slots on Saturdays and the 12:15 slot on Sundays.

Figure A 10. SWEAP activity by weekday and time - Eccles

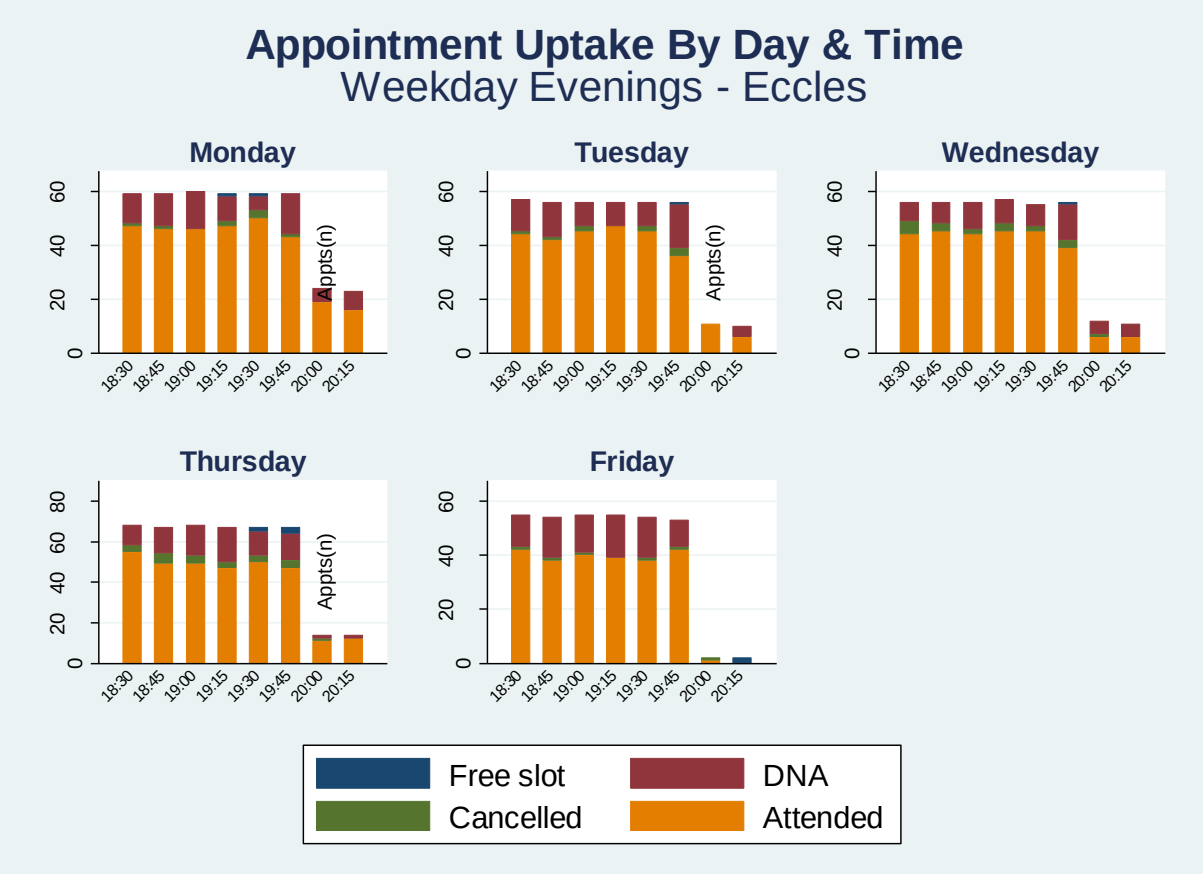
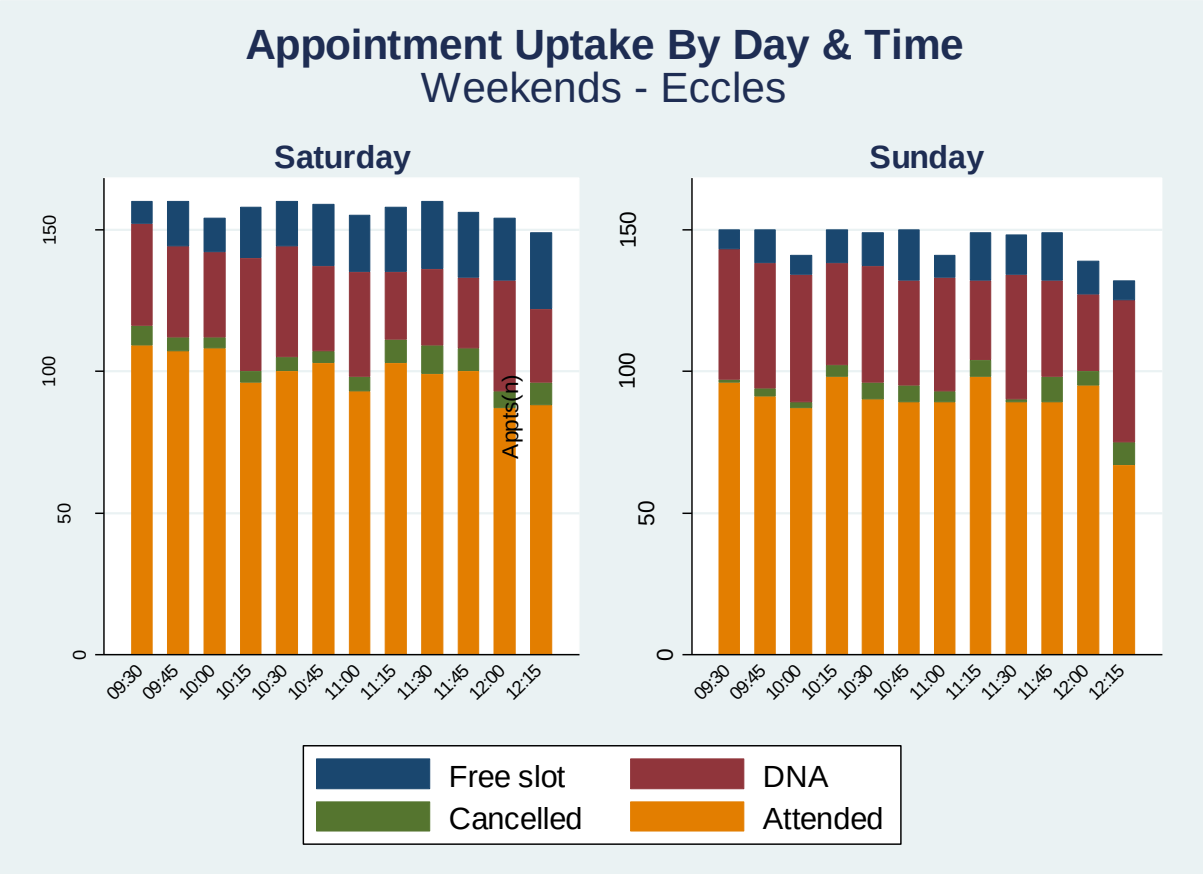


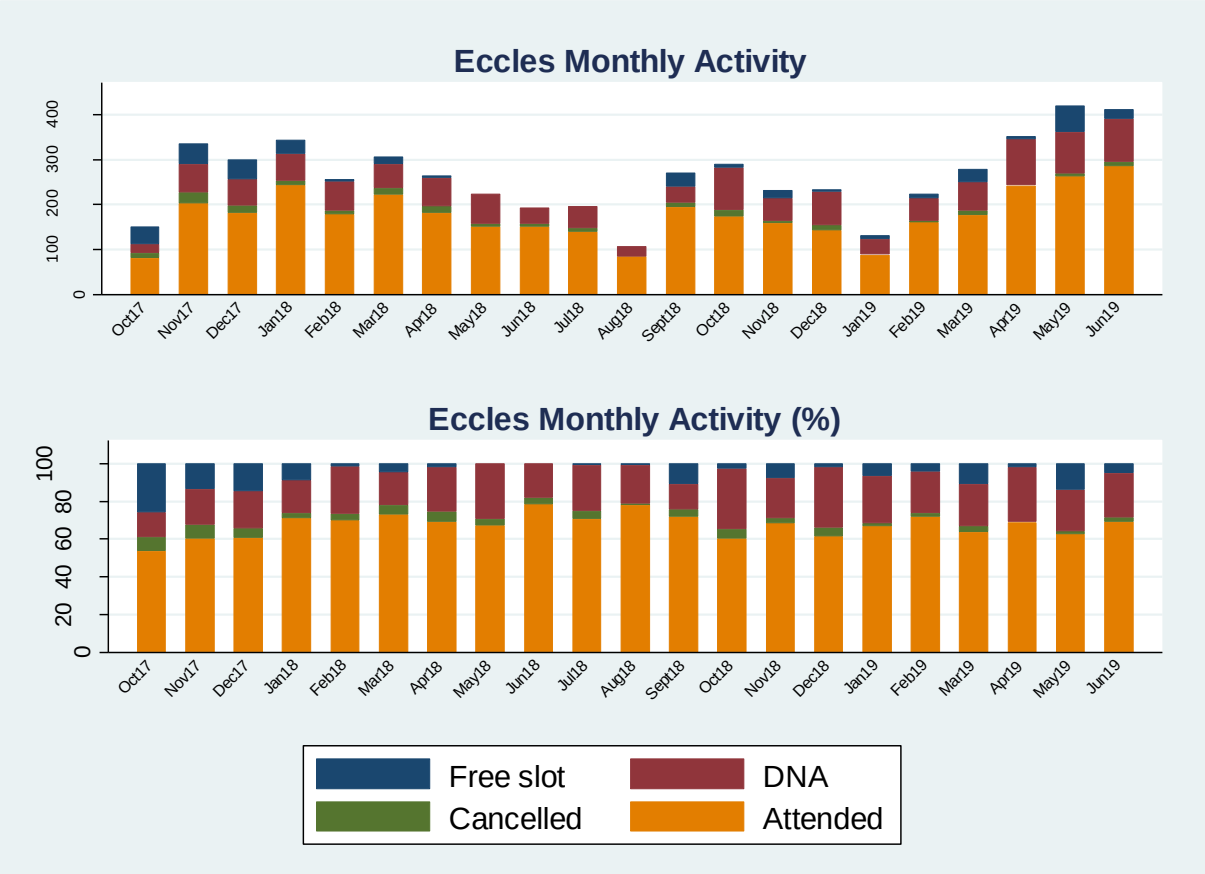
Figure A 11. SWEAP appointment activity by weekend day and time - Eccles



Activity by month

Appointment activity by month is presented in Figure A 12. Activity began in October 2017 and declined between January and August 2018, and again between October 2018 and January 2019. Provision has increased throughout 2019. Attendance has remained quite consistent despite the expansion of the service, and although the proportion of free slots tended to fluctuate by month, the provision of more appointments has not led to an increase in appointments not being booked.

Figure A 12. SWEAP activity by month - Eccles



Provision by clinician type

GP appointments dominated the SWEAP provision, with 87.08% of all appointments in Eccles being with a GP (Table A 8). Latterly more appointments are being provided by nurses and HCAs, with 13.04% of 2019/20 appointments held with a HCA and 10.67% with a nurse.

Table A 8. SWEAP appointments by wave and clinician type - Eccles

Financial wave	2017/18	2018/19	2019/20	All
GP (%)	1,507 (89.22)	2,392 (90.54)	901 (76.29)	**4,800 (87.08)**
ANP (%)	0 (0.00)	0 (0.00)	0 (0.00)	**0 (0.00)**
Nurse (%)	12 (0.71)	41 (1.55)	126 (10.67)	**179 (3.25)**
HCA (%)	170 (10.07)	209 (7.91)	154 (13.04)	**533 (9.67)**
Total	**1,689**	**2,642**	**1,181**	**5,512**

Uptake by practice

In the appointment analysis dataset, the appointments for the three Salford Primary Care Together (SPCT) practices are attributed to Eccles. As two of the sites are outside of the Eccles and Irlam neighbourhood, all SPCT appointments were excluded from analysis. Monton Medical Practice has been the highest user of SWEAP in Eccles once this exclusion was applied, having both the highest volume of appointments overall (Figure A 13) and highest number of appointments per 1,000 patients for each financial year (Figure A 14). Irlam-based practices were all low users of the service overall, with all practices having the lowest rate per 1,000 patients in the 2018/19 and 2019/20 financial years.

Figure A 13. Practice uptake - Eccles

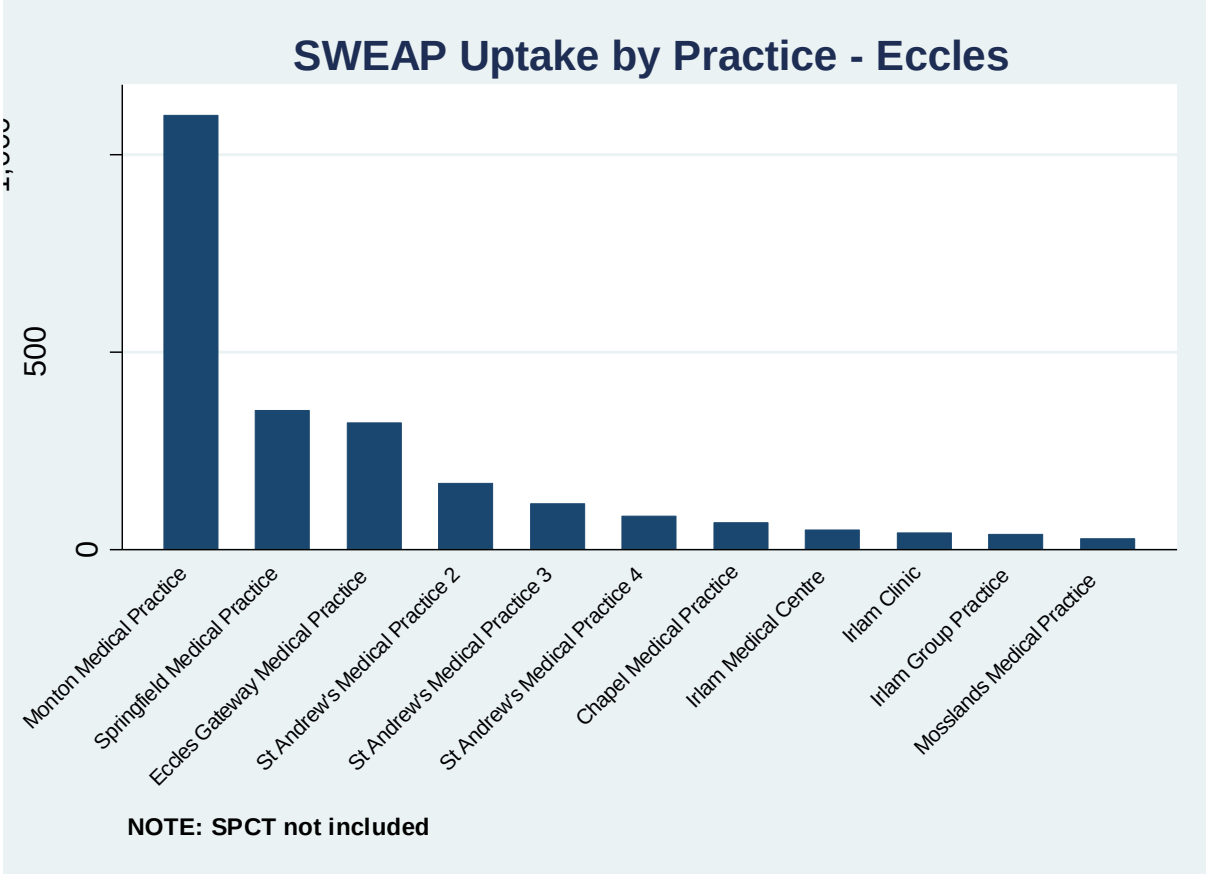
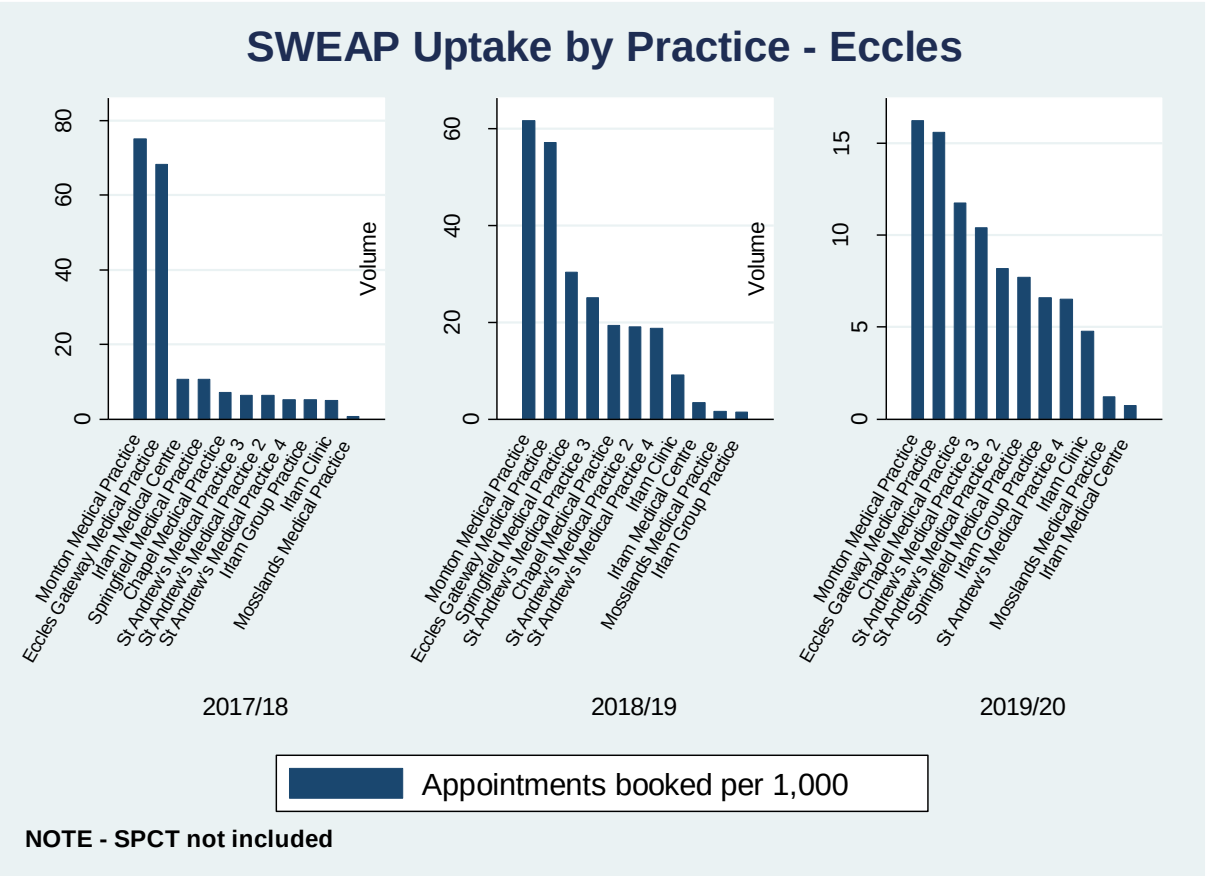


Figure A 14. Practice uptake (per 1,000 patients) by financial year - Eccles



Ordsall & Claremont – Pendleton hub

The Ordsall & Claremont neighbourhood hub is located at Pendleton Gateway and was activated on 22nd March 2018. The analysis in this report covers the last week of financial year 2017/18, all of 2018/19 and the first quarter of 2019/20 (to 20th June 2019). Over this period, 1,238 appointments were made overall, the lowest neighbourhood provision across Salford CCG (Table A 9). No SWEAP clinics have run in the first quarter of the 2019/20 financial wave on Mondays and few Sunday appointments (n=24) have been provided. Provision on Fridays has been low throughout the pilot.

Table A 9. Total Pendleton extended access provision by financial year and day of week

Financial Wave	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
2017/18	-	6	-	-	6	-	-	**12**
2018/19	126	156	103	138	47	234	120	**924**
2019/20	-	32	80	40	18	108	24	**302**
Total (day)	**126**	**194**	**183**	**178**	**71**	**342**	**144**	**1,238**

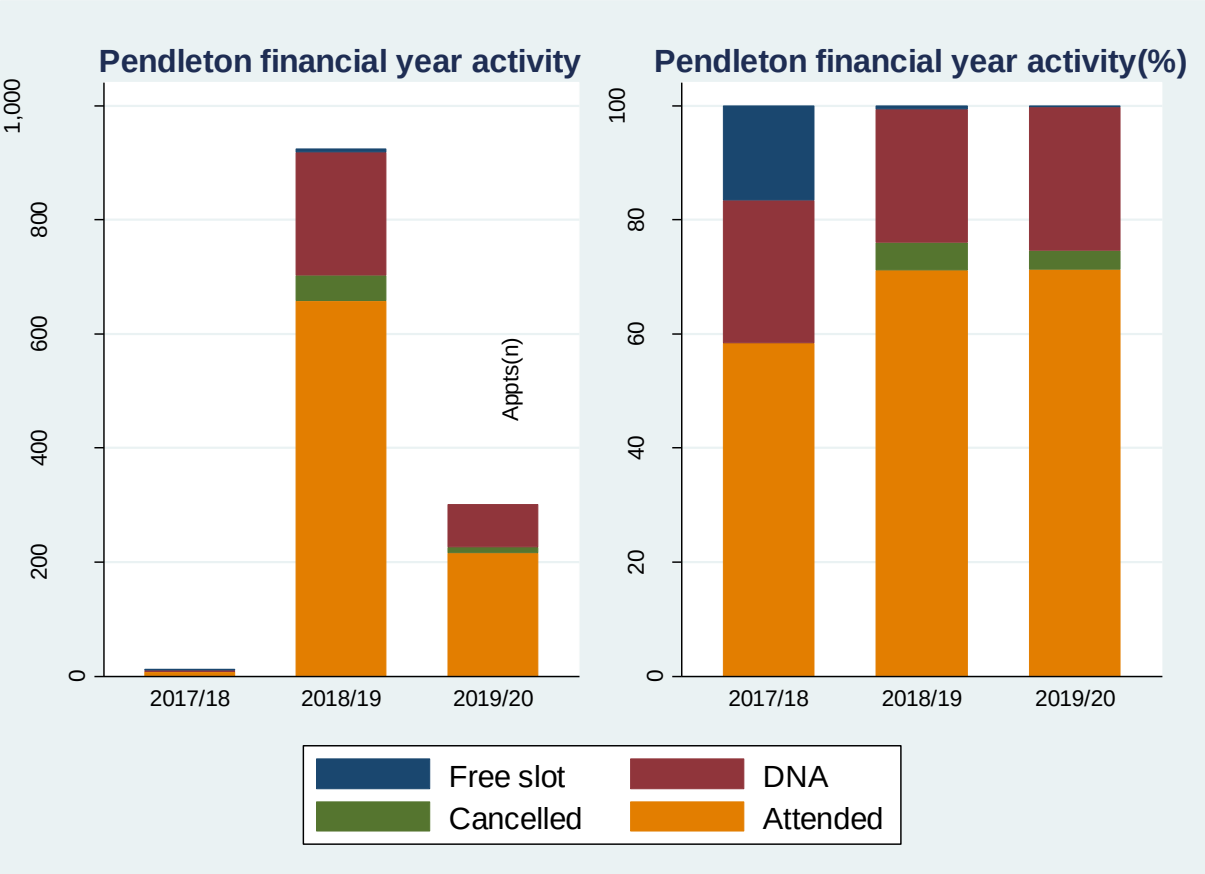
Appointment activity

Of the 1,238 appointments provided at the Pendleton hub, only nine (0.73%) were not booked at all, suggesting that demand is not yet being met (Table A 10 and Figure A 15). Attendance has been consistent across 2018/19 and 2019/20 to date, with 879 (71.00%) appointments being attended overall, 295 booked and not attended (23.83%), and 55 booked and subsequently not attended (4.44%). Based on the first quarter, provision is set to rise in Pendleton for 2019/20, with a projected 1,208 appointments compared to 924 delivered in 2018/19.

Table A 10. SWEAP activity by financial year in Pendleton

Financial wave	Attended (%)	DNA (%)	Cancelled (%)	Not booked (%)	Total
2017/18	7 (58.33)	3 (25.00)	0 (0.00)	2 (16.67)	**12**
2018/19	657 (71.10)	216 (23.38)	45 (4.87)	6 (0.65)	**924**
2019/20	215 (71.19)	76 (25.17)	10 (3.31)	1 (0.33)	**302**
Total	**879 (71.00)**	**295 (23.83)**	**55 (4.44)**	**9 (0.73)**	**1,238**

Figure A 15. SWEAP activity by financial year - Pendleton



Activity by day of week

Activity by day of week is provided in Table A 11 and Figure A 16. Compared to the other neighbourhoods, provision in Pendleton is relatively low across all days. Within the neighbourhood, the most appointments (27.63%) have been provided on Saturdays, with the fewest (5.74%) on Fridays. The general trend is for most weekday appointments to take place between Tuesday and Thursday and the most weekend appointments on a Saturday. Attendance was lowest (60.42%), and the proportion of appointments booked and not attended was the highest on Sundays (35.42%). All appointments were booked between Thursday and Sunday.

Figure A 16. SWEAP activity by day of week - Pendleton

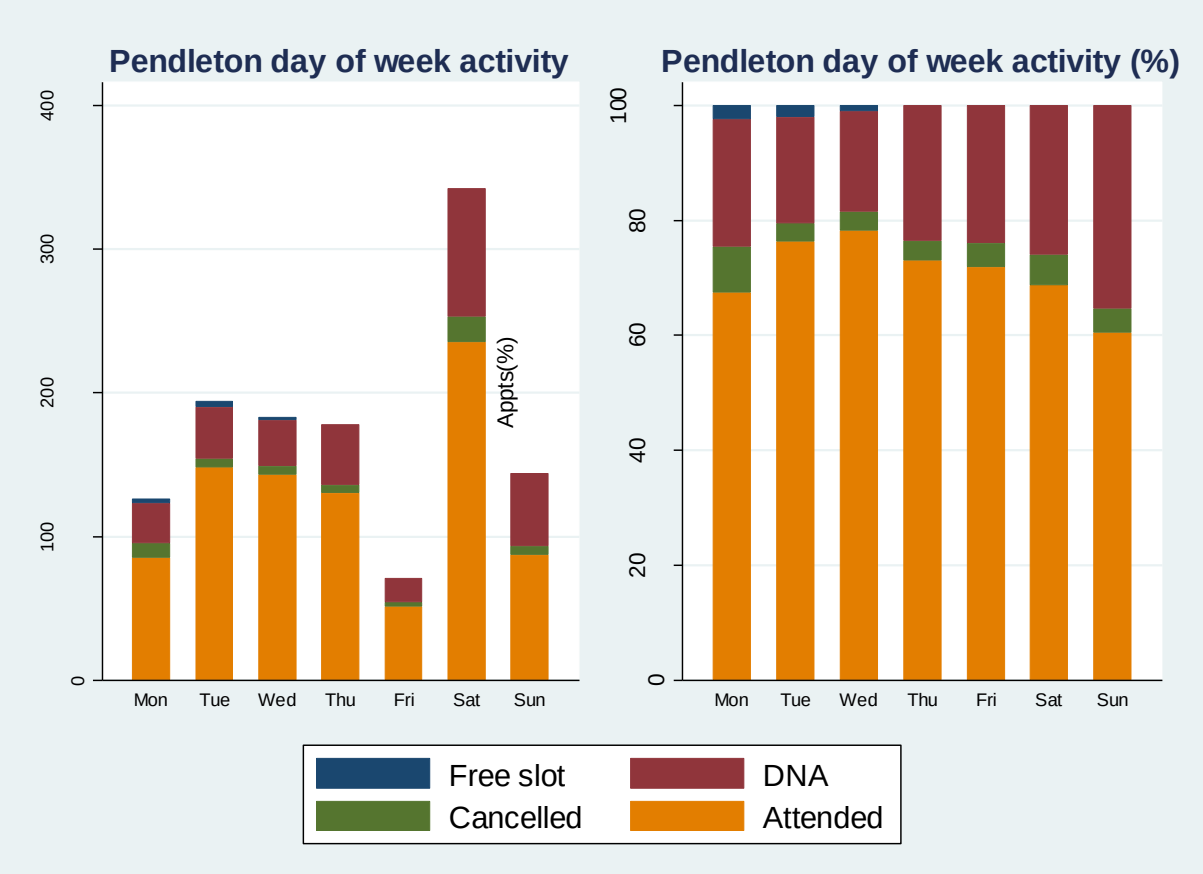


Table A 11. SWEAP activity by day of week in Pendleton

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
Attended (%)	85 (67.46)	148 (76.29)	143 (78.14)	130 (73.03)	51 (71.83)	235 (68.71)	87 (60.42)	**879 (71.00)**
DNA (%)	28 (22.22)	36 (18.56)	32 (17.49)	42 (23.60)	17 (23.94)	89 (26.02)	51 (35.42)	**295 (23.83)**
Cancelled (%)	10 (7.94)	6 (3.09)	6 (3.28)	6 (3.37)	3 (4.23)	18 (5.26)	6 (4.17)	**55 (4.44)**
Not booked (%)	3 (2.38)	4 (2.06)	2 (1.09)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	**9 (0.73)**
Total* (%)	**126 (10.18)**	**194 (15.67)**	**183 (14.78)**	**178 (14.38)**	**71 (5.74)**	**342 (27.63)**	**144 (11.63)**	**1,238 (100.00)**

*% totals are the percentage of total appointments provided

Activity by day and time

Appointment activity by time slot for each weekday evening and weekend day are presented in Figures A 17 and A 18. The later appointment slots at 20:00 and 20:15 on weekday evenings have been provided on Wednesdays and Thursdays where clinics have run, with a lower provision in these slots on Tuesdays. Attendance across time slots on weekday evenings is relatively constant, and the later slots are being utilised. Attendance at weekends fluctuates across the time slots, with no clear pattern of attendance emerging.

Figure A 17. SWEAP activity by weekday and time - Pendleton

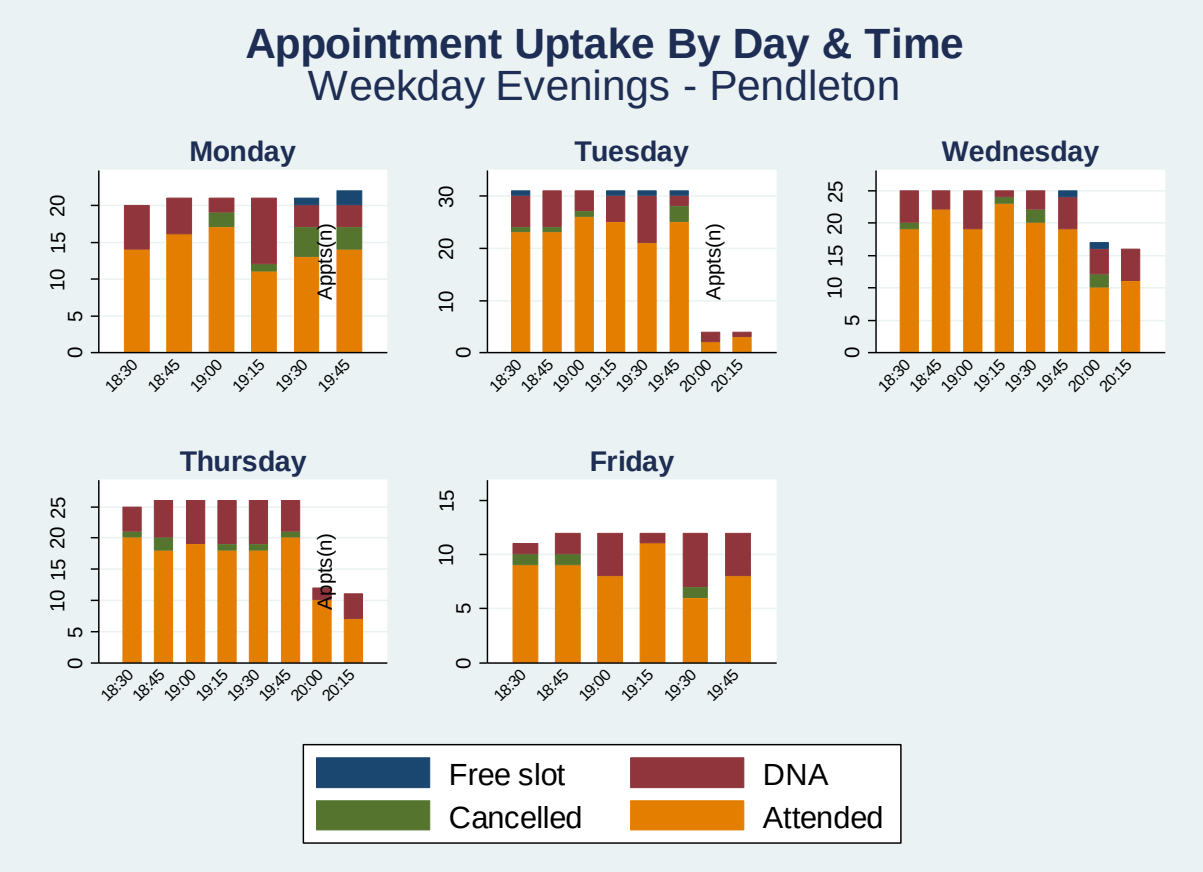
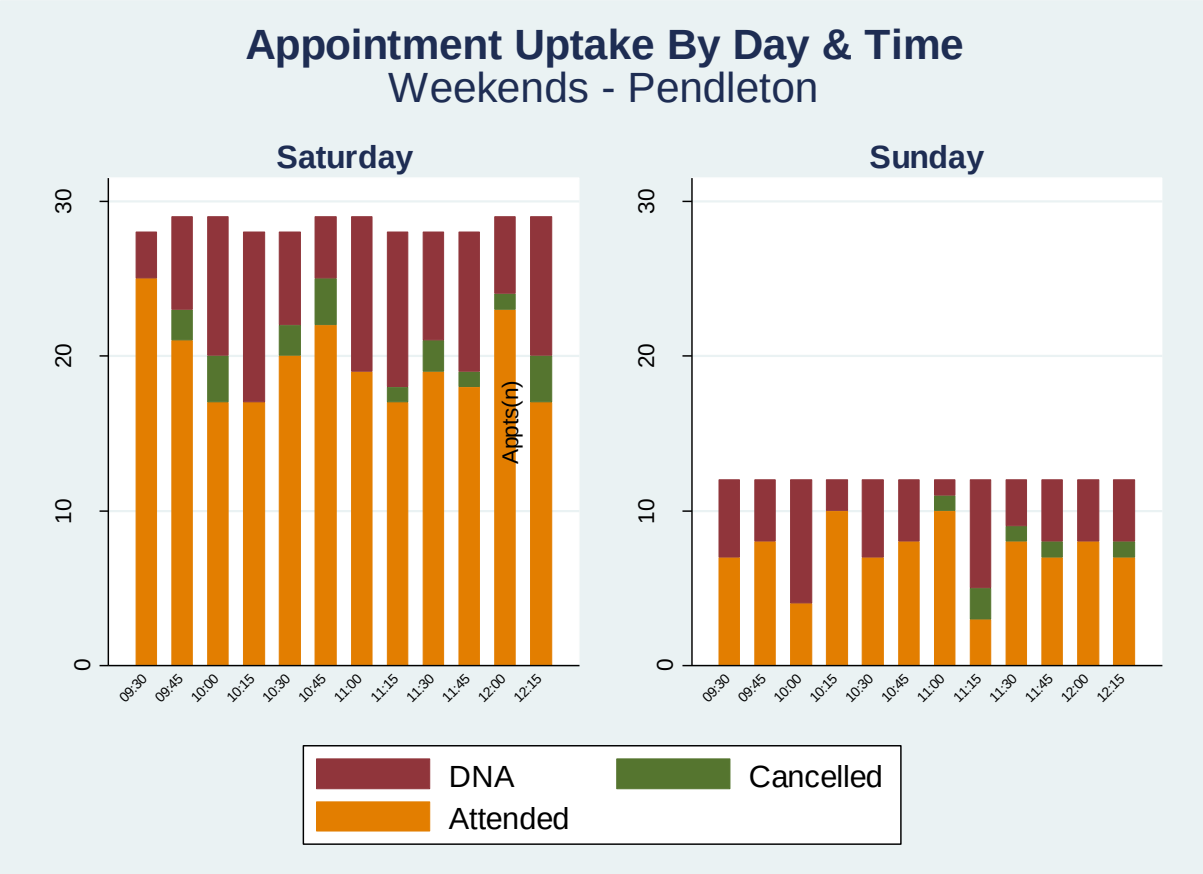


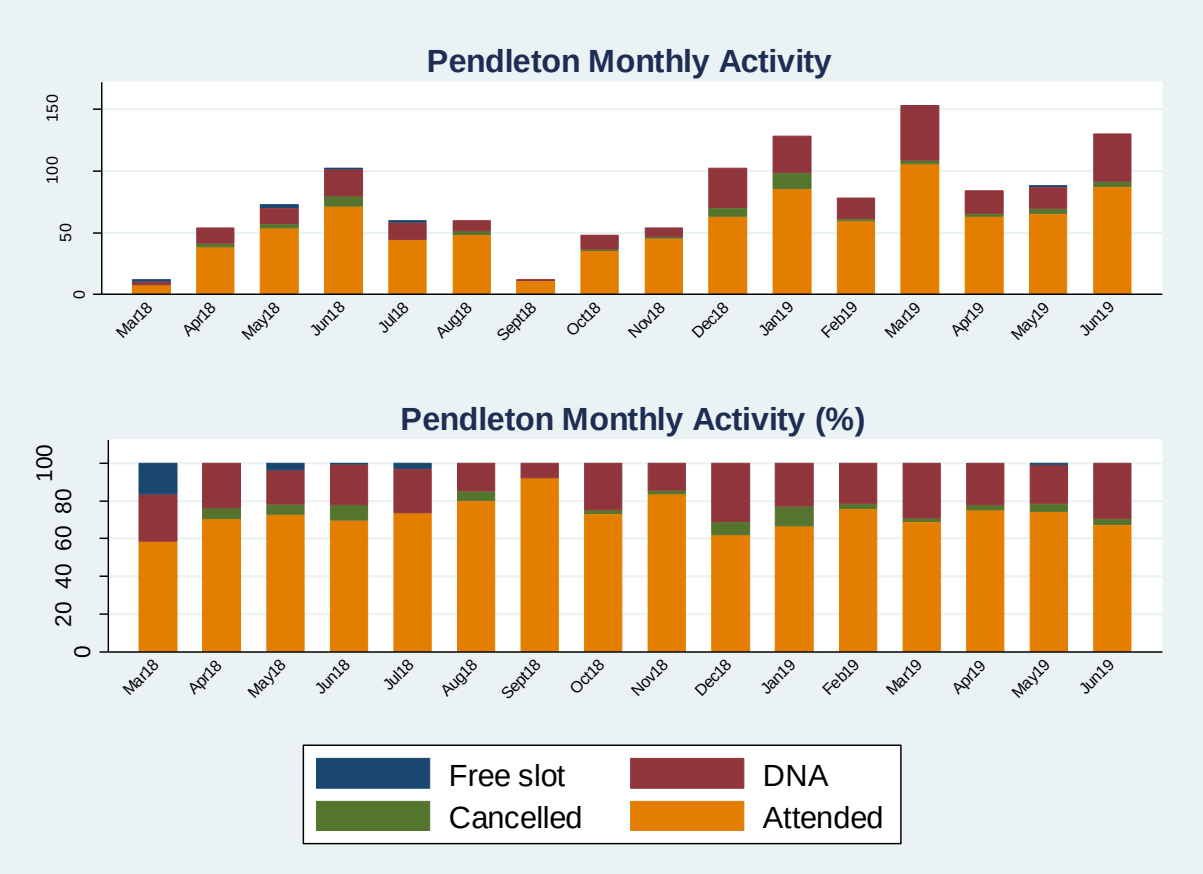
Figure A 18. SWEAP activity by weekend day and time - Pendleton



Activity by month

Figure A 19 presents SWEAP activity by month, starting in March 2018. Compared with other neighbourhoods, provision has remained consistently low, particularly in the summer of 2018. Provision has been higher but inconsistent since December 2018, with a peak in March 2019. Attendance and DNA rates fluctuate with no clear pattern.

Figure A 19. SWEAP activity by month - Pendleton



Provision by clinician type

All SWEAP appointments in Pendleton have been provided by a GP (Table A 12).

Table A 12. SWEAP appointments by wave and clinician type - Pendleton

Financial wave	2017/18	2018/19	2019/20	All
GP (%)	12 (100.00)	924 (100.00)	302 (100.00)	**1,238 (100.00)**
ANP (%)	0 (0.00)	0 (0.00)	0 (0.00)	**0 (0.00)**
Nurse (%)	0 (0.00)	0 (0.00)	0 (0.00)	**0 (0.00)**
HCA (%)	0 (0.00)	0 (0.00)	0 (0.00)	**0 (0.00)**
Total	**12**	**924**	**302**	**1,238**

Uptake by practice

Orient Road Medical Practice has been the highest user of the service, both in overall volume of appointments (Figure A 20) and appointments per 1,000 patients (Figure A 21). Langworthy Road was the second highest user for total appointments, whilst the second highest per 1,000 patients was Pendleton Medical Practice. Clarenden Medical Practice and The Willows have the lowest participation overall, as well as per 1,000 patients. Practice use has remained consistent across the two financial years analysed (2018/19 and 2019/20).

Figure A 20. Practice uptake – Pendleton

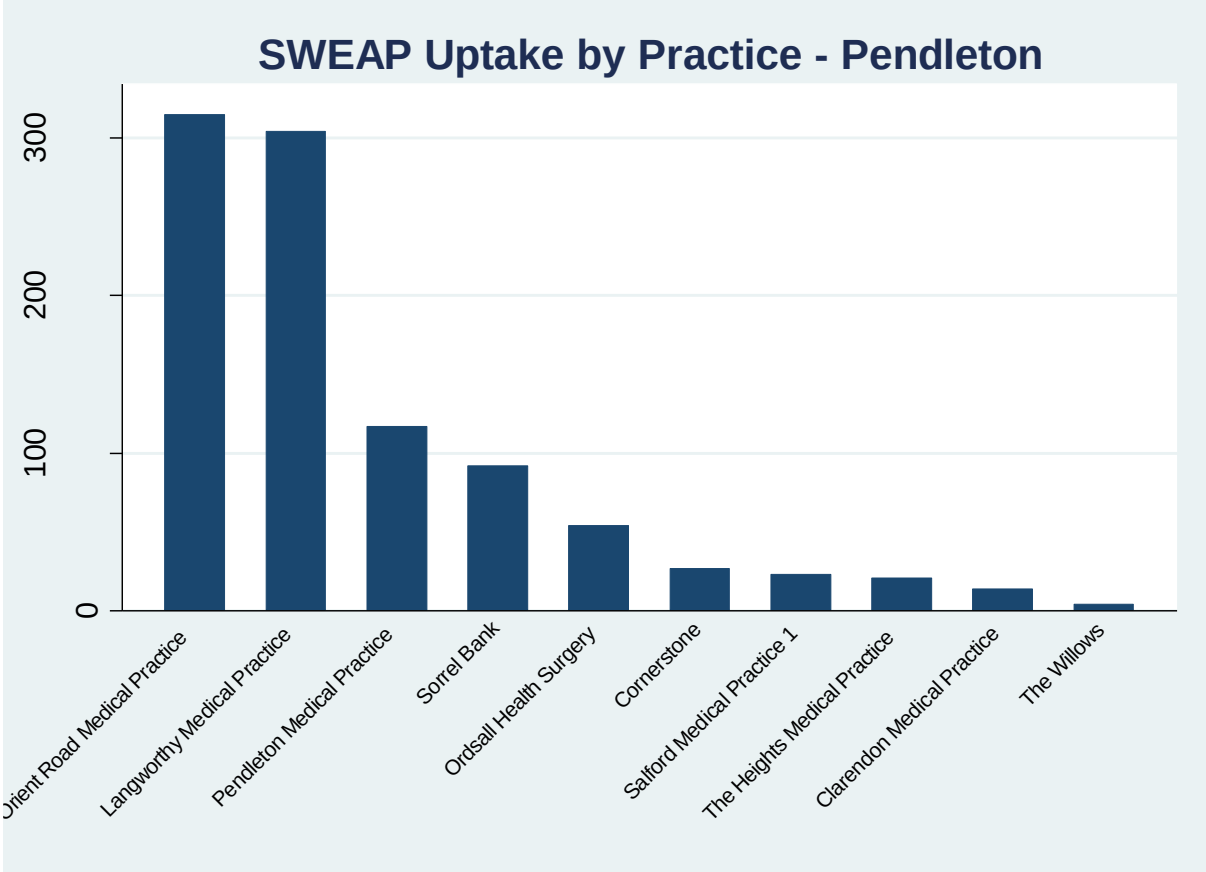
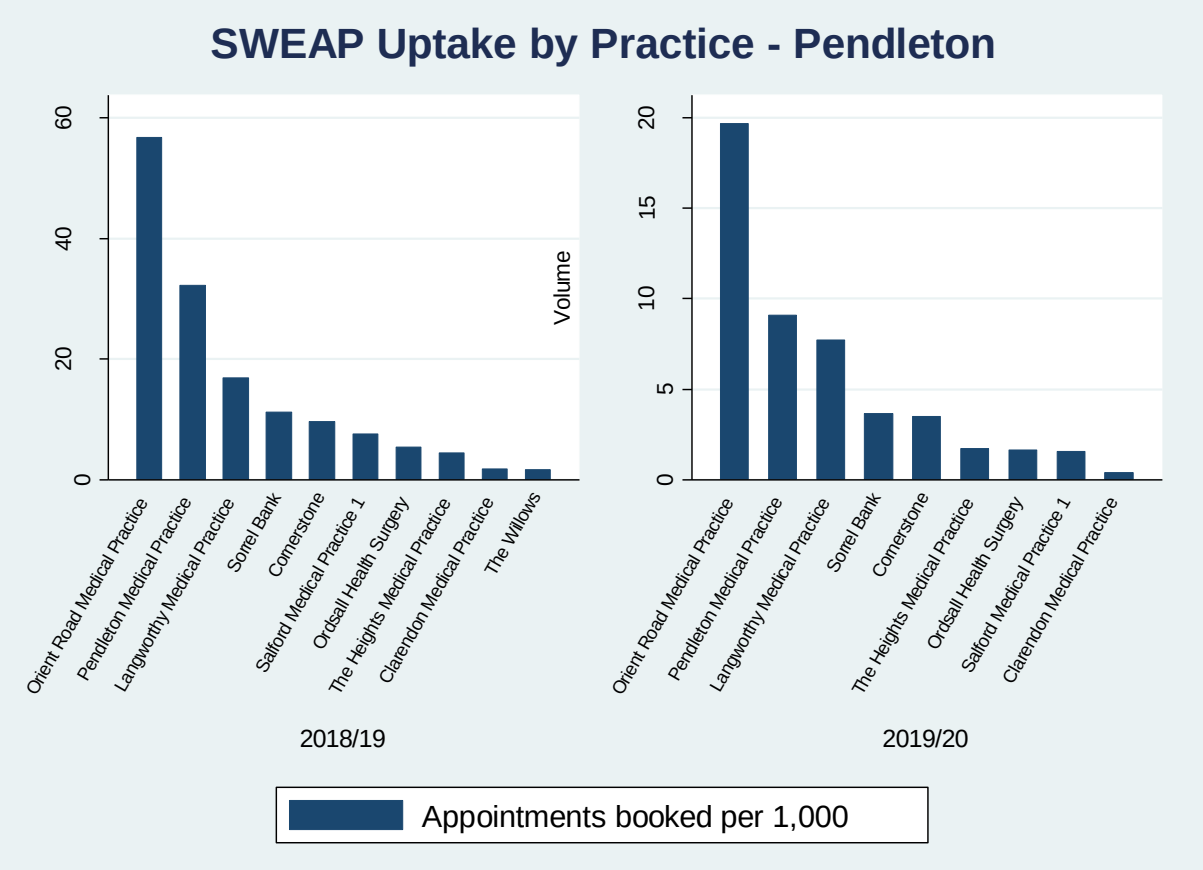


Figure A 21. Practice uptake (per 1,000 population) by financial year - Pendleton



Swinton – Swinton hub

The Swinton neighbourhood hub is located at Swinton Gateway and was activated on 14th August 2017, the first of the five hubs to open. The dataset covers the period from the activation date to 30th June 2019 – seven and a half months of activity from 2017/18, all of 2018/19 and the first quarter of 2019/20. During this period, a total of 5,547 appointments were made available (Table A 13). Provision varied throughout the week, with a large proportion of appointments made available at weekends, and Fridays having the lowest offering overall.

Table A 13. Total Swinton extended access provision by financial year and day of week

Financial Wave	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
2017/18	142	186	143	172	102	922	660	**2,327**
2018/19	128	122	156	176	88	858	843	**2,371**
2019/20	64	110	62	88	38	230	257	**849**
Total (day)	**334**	**418**	**361**	**436**	**228**	**2,010**	**1,760**	**5,547**

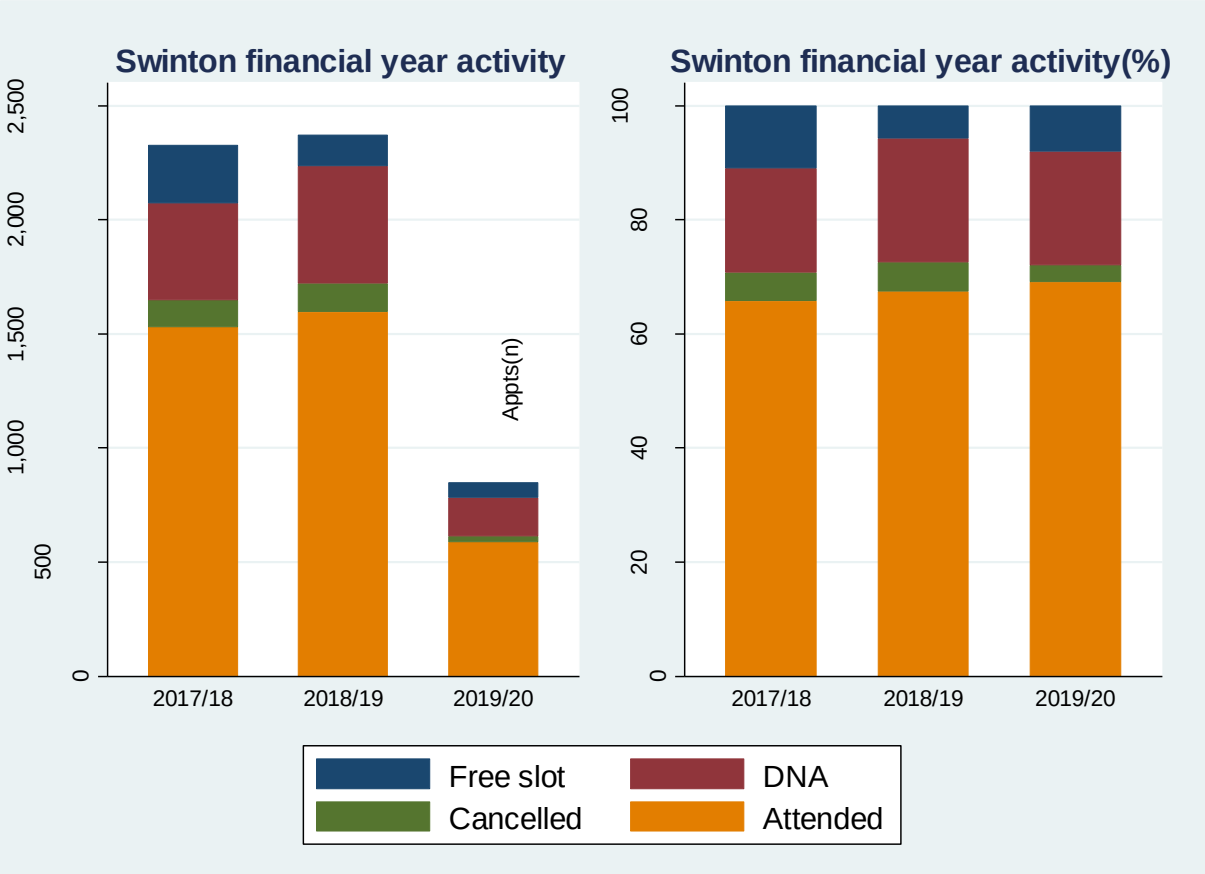
Appointment activity

Of the 5,547 appointments provided, 3,712 (66.92%) were booked and attended (Table A 14 and Figure A 22), 1,109 were booked and not attended (19.99%), 265 were booked and subsequently cancelled (4.78%), whilst the remaining 461 (8.31%) were not booked at all. Provision decreased in 2018/19 compared to 2017/18, with only 44 more appointments provided for the whole of 2018/19 compared to seven and a half months of 2017/18. For 2019/20, provision is set to increase again, with a projected 3,396 appointments to be offered if the rates observed in the first quarter are constant throughout the financial year.

Table A 14. SWEAP activity by financial year in Swinton

Financial wave	Attended (%)	DNA (%)	Cancelled (%)	Not booked (%)	Total
2017/18	1,529 (65.71)	424 (18.22)	118 (5.07)	256 (11.00)	**2,327**
2018/19	1,597 (67.36)	516 (21.76)	122 (5.15)	136 (5.74)	**2,371**
2019/20	586 (69.02)	169 (19.91)	25 (2.94)	69 (8.13)	**849**
Total	**3,712 (66.92)**	**1,109 (19.99)**	**265 (4.78)**	**461 (8.31)**	**5,547**

Figure A 22. SWEAP activity by financial year - Swinton



Activity by day of week

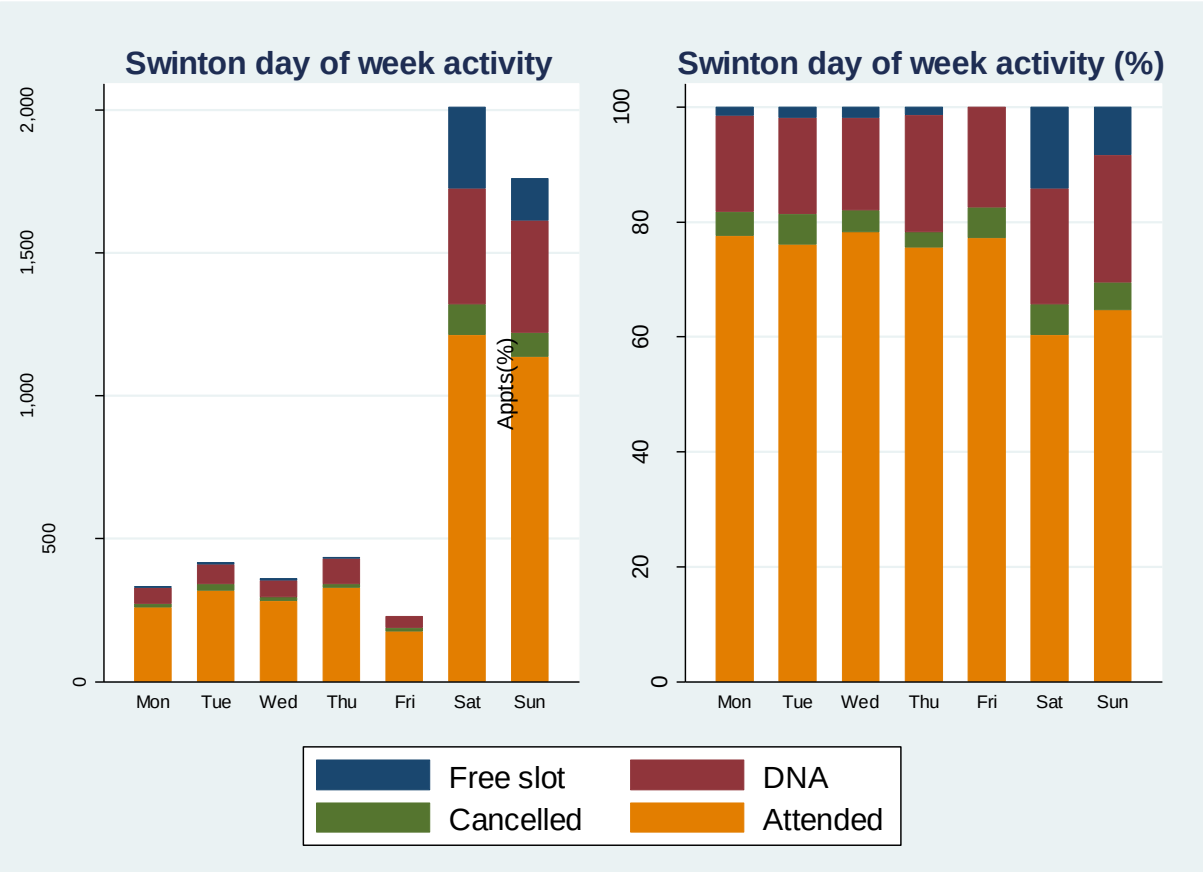
Activity by day of week is provided in Table A 15 and Figure A 23. More than 2/3 of all appointments were offered on Saturdays and Sundays (67.97%, n=3,770). As per the aggregate estimates for Salford CCG, the overall proportion of appointments was higher on Saturdays (36.24%) than Sundays (31.73%). Weekday provision varied, with a range of 4.11% (Fridays, n=228) to 7.86% (Thursdays, n=436) of all appointments provided on these days. Weekday attendance was higher than at weekends, and DNA rates were highest on Sundays, followed by Thursdays. This is unusual for Salford as a whole, where DNA rates have tended to be higher on the weekend days over weekday evenings. No Friday appointments were 'never booked,' whilst Saturdays had the largest proportion of slots not booked at all.

Table A 15. SWEAP activity by day of week in Swinton

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
Attended (%)	259 (77.54)	318 (76.08)	282 (78.12)	329 (75.46)	176 (77.19)	1,211 (60.25)	1,137 (64.60)	**3,712 (66.92)**
DNA (%)	56 (16.77)	70 (16.75)	58 (16.07)	89 (20.41)	40 (17.54)	405 (20.15)	391 (22.22)	**1,109 (19.99)**
Cancelled (%)	14 (4.19)	22 (5.26)	14 (3.88)	12 (2.75)	12 (5.26)	107 (5.32)	84 (4.77)	**265 (4.78)**
Not booked (%)	5 (1.50)	8 (1.91)	7 (1.94)	6 (1.38)	0 (0.00)	287 (14.28)	148 (8.41)	**461 (8.31)**
Total* (%)	**334 (6.02)**	**418 (7.54)**	**361 (6.51)**	**436 (7.86)**	**228 (4.11)**	**2,010 (36.24)**	**1,760 (31.73)**	**5,547 (100.00)**

*% totals are the percentage of total appointments provided

Figure A 23. SWEAP activity by day of week - Swinton



Activity by day and time

Figures A 24 and A 25 present activity by time slot, for weekday evenings and weekend days respectively. In Swinton, the appointment slots added at 20:00 and 20:15 on weekday evenings have been provided with some regularity, with only Friday evenings having these appointments less often. Attendance rates on weekday evenings are consistent across timeslots and the new later appointments appear to be well utilised. At weekends, attendance fluctuates across timeslots with no clear pattern emerging. Unlike other neighbourhoods, the 12:00 and 12:15 appointments are not associated with lower attendance rates.

Figure A 24. SWEAP activity by weekday and time - Swinton

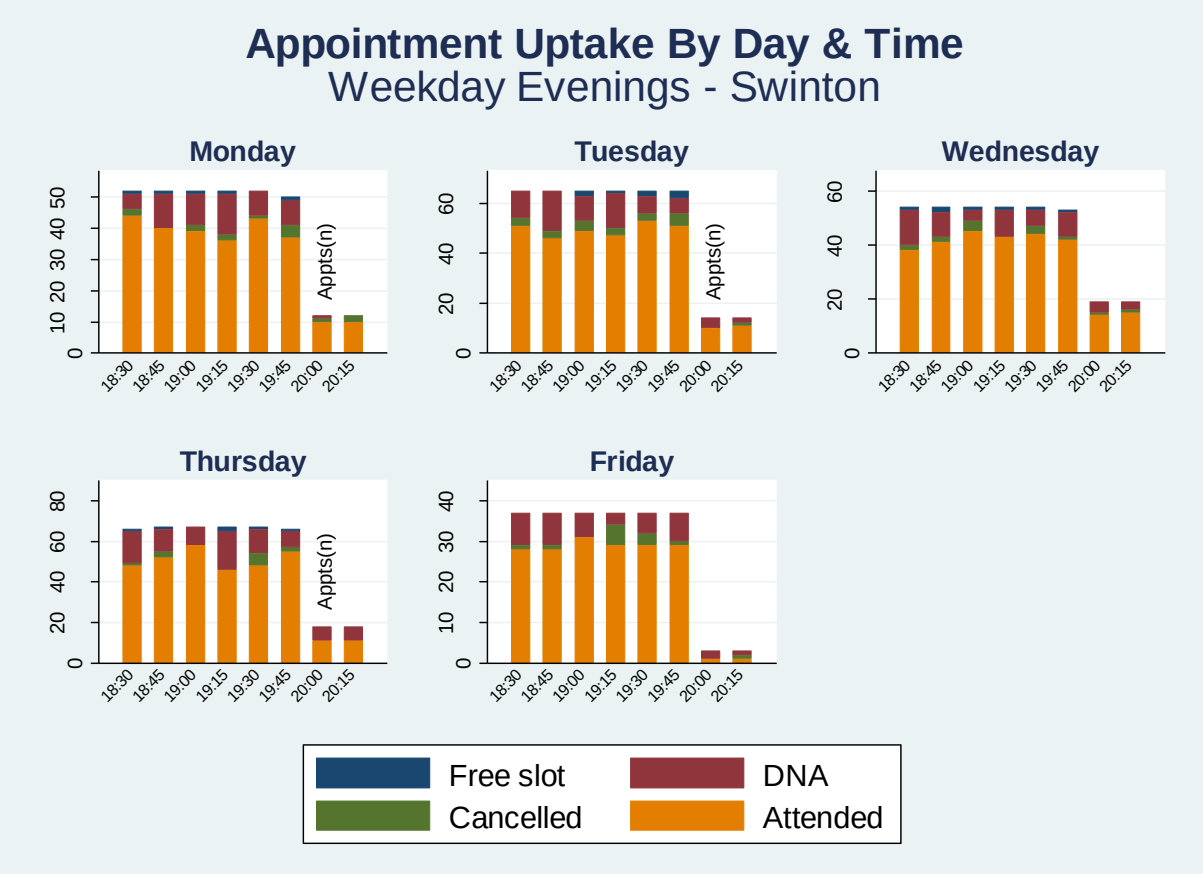
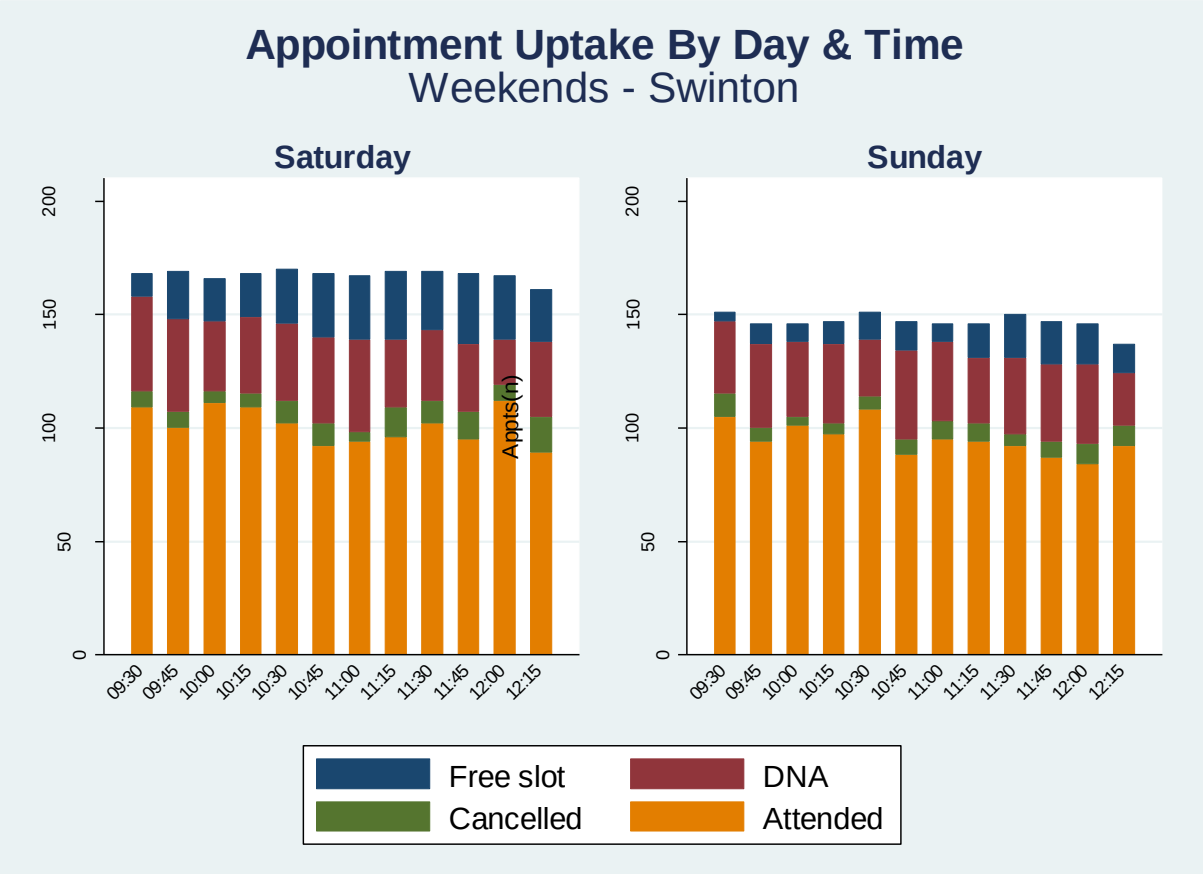


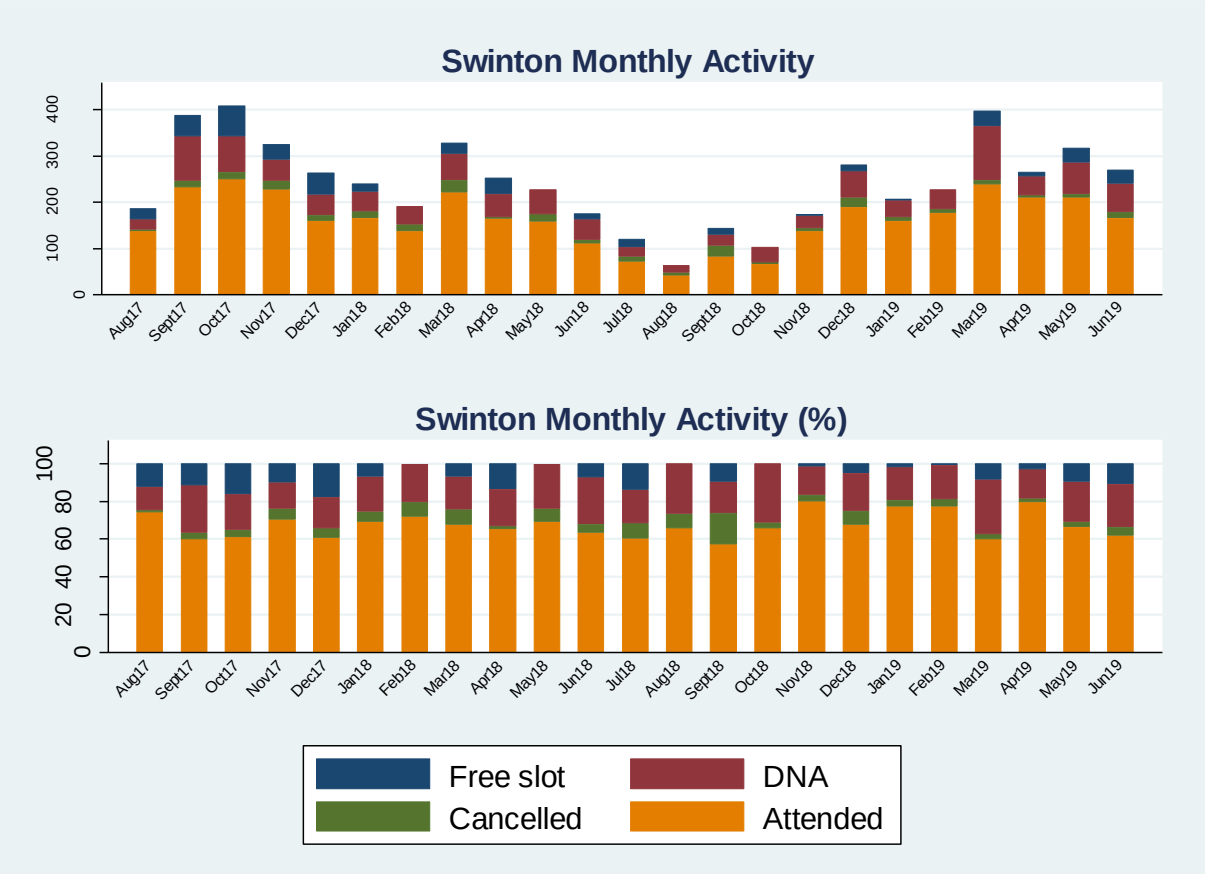
Figure A 25. SWEAP activity by weekend day and time - Swinton



Activity by month

Activity by month are presented in Figure A 26. Though provision was changeable month-on-month, there was a general trend of provision decreasing from October 2017-August 2018, broadly increasing from September 2018 onwards. In relation to attendance, again this fluctuated over time, with no clear relationship between volume of appointments offered and appointment uptake.

Figure A 26. SWEAP activity by month - Swinton



Provision by clinician type

As with other neighbourhoods and Salford CCG overall, the majority of SWEAP appointments in Swinton have been delivered by GPs with 85.54% of all appointments being GP-provided (n=4,745, Table A 16). Latterly, more appointments have been provided with HCAs, representing nearly ¼ of all appointments in Swinton for 2019/20 to date.

Table A 16. SWEAP appointments by wave and clinician type - Swinton

Financial wave	2017/18	2018/19	2019/20	All
GP (%)	2,003 (86.08)	2,155 (90.89)	587 (69.14)	**4,745 (85.54)**
ANP (%)	0 (0.00)	0 (0.00)	0 (0.00)	**0 (0.00)**
Nurse (%)	72 (3.09)	55 (2.32)	54 (6.36)	**181 (3.26)**
HCA (%)	252 (10.83)	161 (6.79)	208 (24.50)	**621 (11.20)**
Total	**2,327**	**2,371**	**849**	**5,547**

Uptake by practice

All four practices in Swinton have been engaging with SWEAP. By overall volume, Silverdale Medical Practice has been the highest user of the service so far (Figure A 27). Whilst The Lakes is second for overall use, it had the highest usage rate per 1,000 patients for 2018/19 and the first quarter of 2019/20 (Figure A 28). The two lowest users overall – The Poplars and The Sides – are, in 2019/20, booking appointments at a higher rate per 1,000 patients than Silverdale Medical Practice.

Figure A 27. Practice use – Swinton

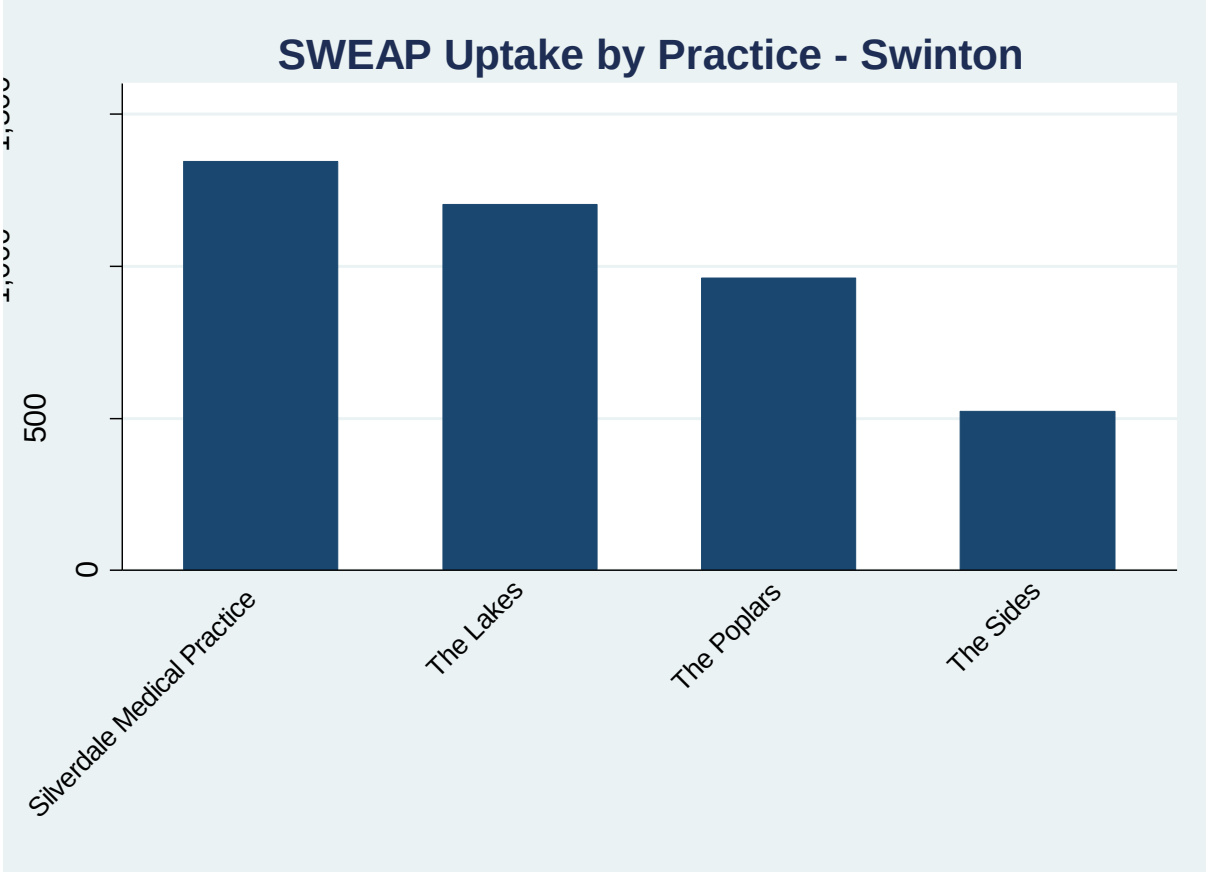
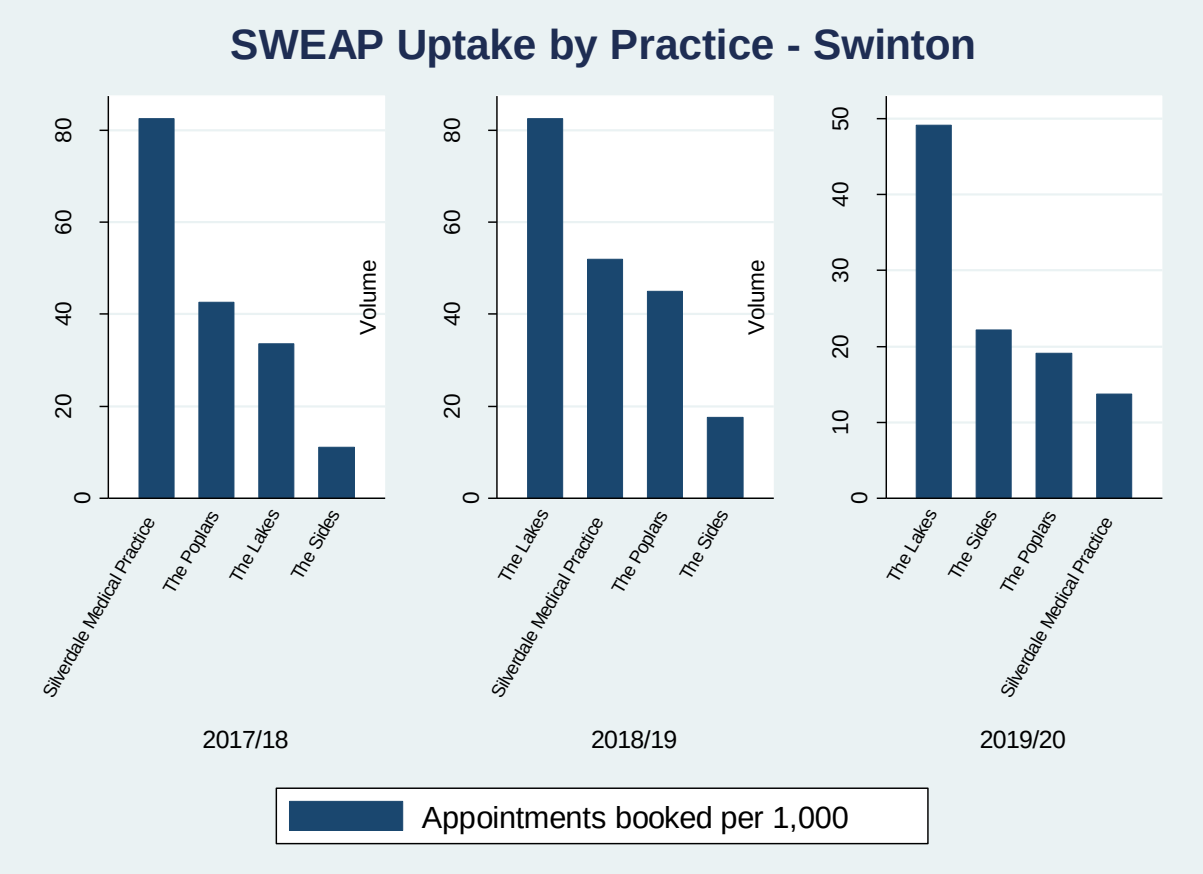


Figure A 28. Practice use (per 1,000 patients) by financial year - Swinton



Walkden & Little Hulton – Walkden hub

The Walkden neighbourhood hub is located at Walkden Gateway and was activated on 22nd March 2018. The appointment analysis presented here covers the last week of financial wave 2017/18, all of 2018/19 and the first quarter of 2019/20 to June 30th 2019. During this period, a total of 3,324 appointments have been made available (Table A 17). The highest number of appointments overall were provided on Saturdays, whilst few sessions were run on Tuesdays and Fridays. Weekday evening provision on the three days that SWEAP sessions tended to run (Monday, Wednesday and Thursday) was higher than that provided on Sundays, a trend not observed in other neighbourhoods, or for all of Salford CCG.

Table A 17. Total Walkden extended access provision by financial year and day of week

Financial Wave	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
2017/18	-	-	-	-	6	-	-	**6**
2018/19	412	30	399	391	48	631	293	**2,204**
2019/20	170	30	163	176	24	309	242	**1,114**
Total (day)	**582**	**60**	**562**	**567**	**78**	**940**	**535**	**3,324**

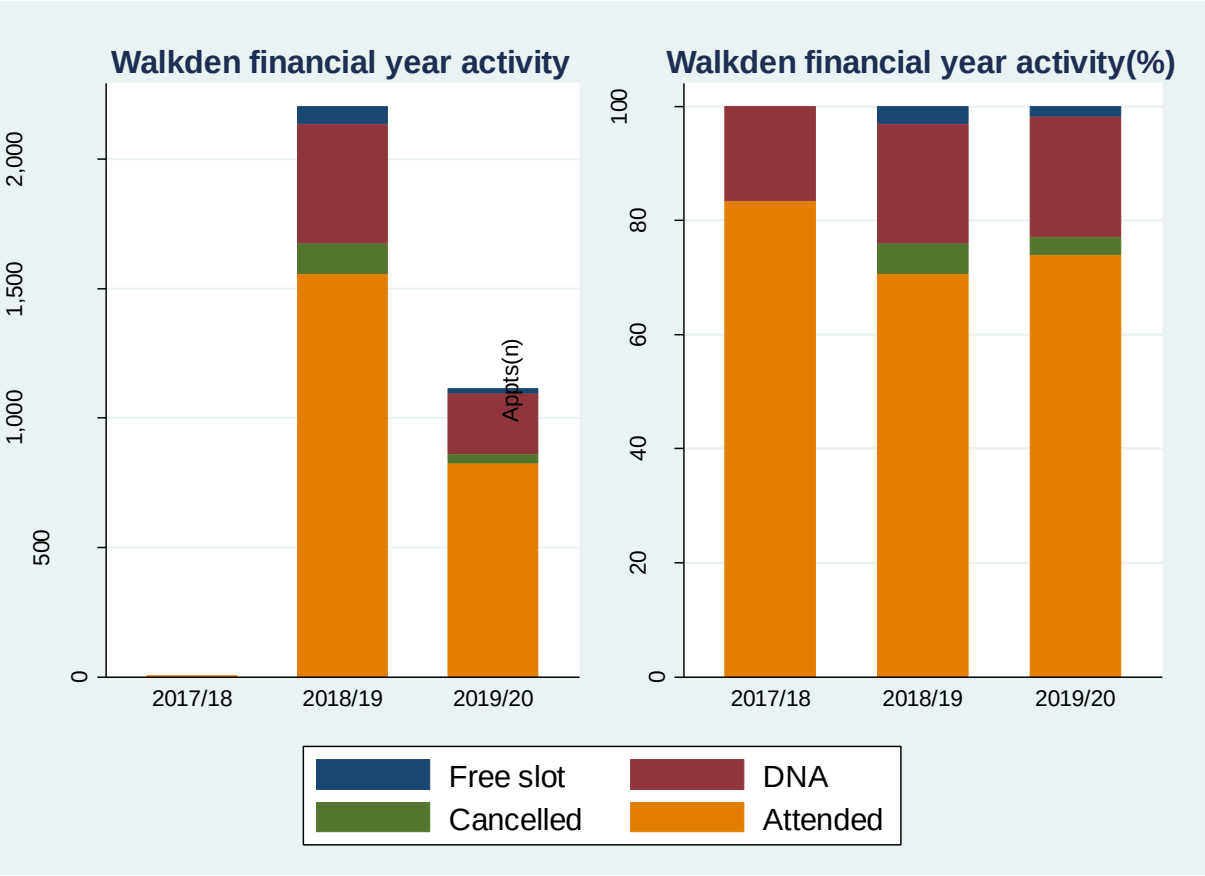
Appointment activity

Of the 3,324 appointments offered in Walkden, 2,385 (71.75%) were booked and attended (Table A 18 and Figure A 29), 696 were booked and not attended (20.94%), 154 were booked and subsequently cancelled (4.63%) and 89 were not booked at all (2.68%). Overall provision is set to increase from 2,204 in 2018/19 to 4,456 in 2019/20, if appointments are offered at the same volume as the first quarter of this financial year. Both attended and DNA appointments proportionally increased in 2019/20 compared to 2018/19.

Table A 18. SWEAP activity by financial year in Walkden

Financial wave	Attended (%)	DNA (%)	Cancelled (%)	Not booked (%)	Total
2017/18	5 (83.33)	1 (16.67)	0 (0.00)	0 (0.00)	**6**
2018/19	1,556 (70.60)	460 (20.87)	119 (5.40)	69 (3.13)	**2,204**
2019/20	824 (73.97)	235 (21.10)	35 (3.14)	20 (1.80)	**1,114**
Total	**2,385 (71.75)**	**696 (20.94)**	**154 (4.63)**	**89 (2.68)**	**3,324**

Figure A 29. SWEAP appointment activity by financial year - Walkden



Activity by day of week

Table A 19 and Figure A 30 show appointment activity by day of week for Walkden. The largest number of appointments was made available on Saturdays (28.28%), but unlike all other neighbourhoods aside from Swinton, there were fewer appointments offered on Sundays compared to several weekday evenings. A low proportion of all appointments were available on Tuesday (1.81%) and Friday (2.35%). Despite the disparity in the number of appointments available, attendance rates on Saturday and Sunday were similar, with attendance lower at weekends than for weekday evenings. DNA rates were highest at the weekend, although the rate for DNAs on Thursdays was close to this proportion (23.46%). There were no appointments not booked on the days with the lowest provision – Tuesday and Thursday.

Figure A 30. SWEAP activity by day of week - Walkden

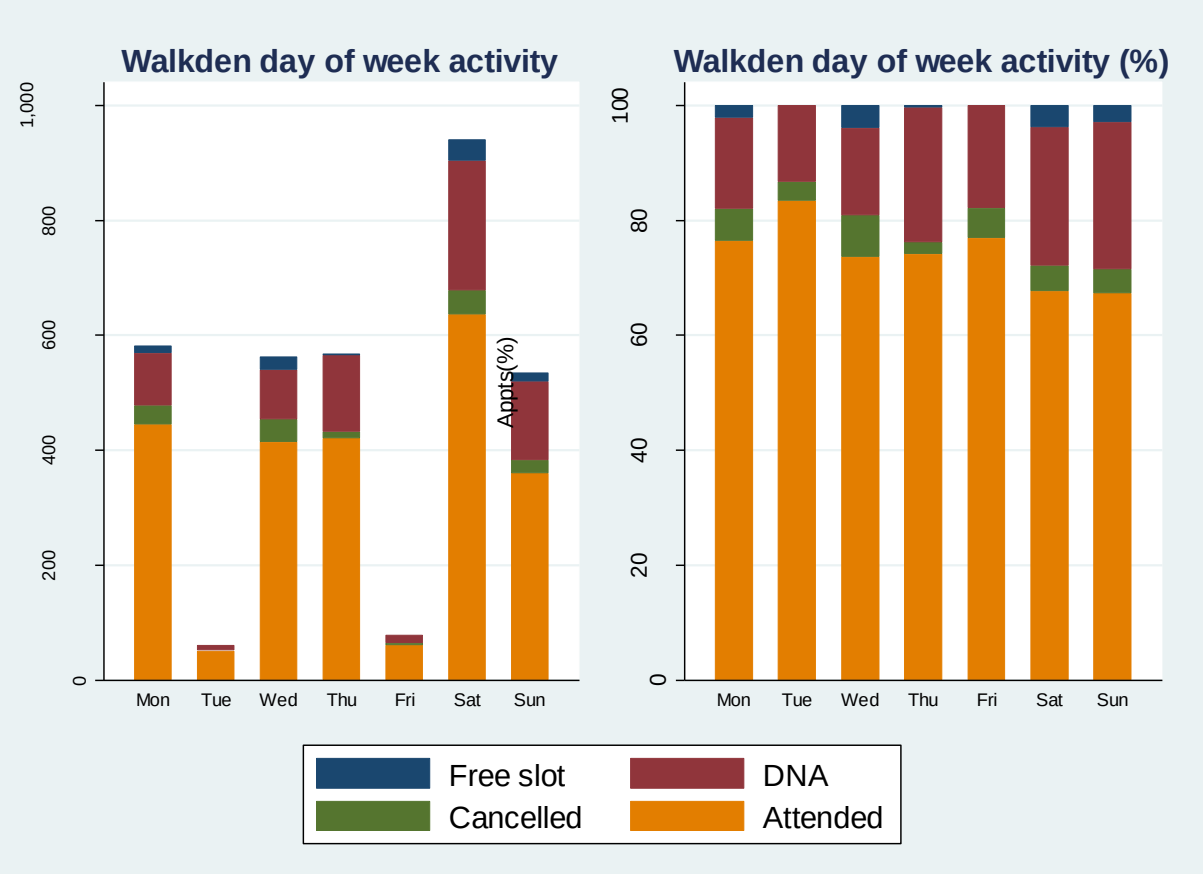


Table A 19. SWEAP activity by day of week in Walkden

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	All
Attended (%)	445 (76.46)	50 (83.33)	414 (73.67)	420 (74.07)	60 (76.92)	636 (67.66)	360 (67.29)	**2,385 (71.75)**
DNA (%)	92 (15.81)	8 (13.33)	86 (15.30)	133 (23.46)	14 (17.95)	226 (24.04)	137 (25.61)	**696 (20.94)**
Cancelled (%)	32 (5.50)	2 (3.33)	40 (7.12)	12 (2.12)	4 (5.13)	42 (4.47)	22 (4.11)	**154 (4.63)**
Not booked (%)	13 (2.23)	0 (0.00)	22 (3.91)	2 (0.35)	0 (0.00)	36 (3.83)	16 (2.99)	**89 (2.68)**
Total* (%)	**582 (17.51)**	**60 (1.81)**	**562 (16.91)**	**567 (17.06)**	**78 (2.35)**	**940 (28.28)**	**535 (16.10)**	**3,324 (100.00)**

*% totals are the percentage of total appointments provided

Activity by day and time

Figures A 31 and A 32 show appointment by day of week and time slot for weekday evenings and weekend days respectively. The new later appointments at 20:00 and 20:15 have been provided at weekday clinics for Monday to Thursday, with no Friday sessions yet running these extra slots. Attendance was largely consistent across time slots for both weekdays and weekend days, with a lower overall provision for the final 12:15 slot on Saturdays.

Figure A 31. SWEAP activity by weekday and time - Walkden

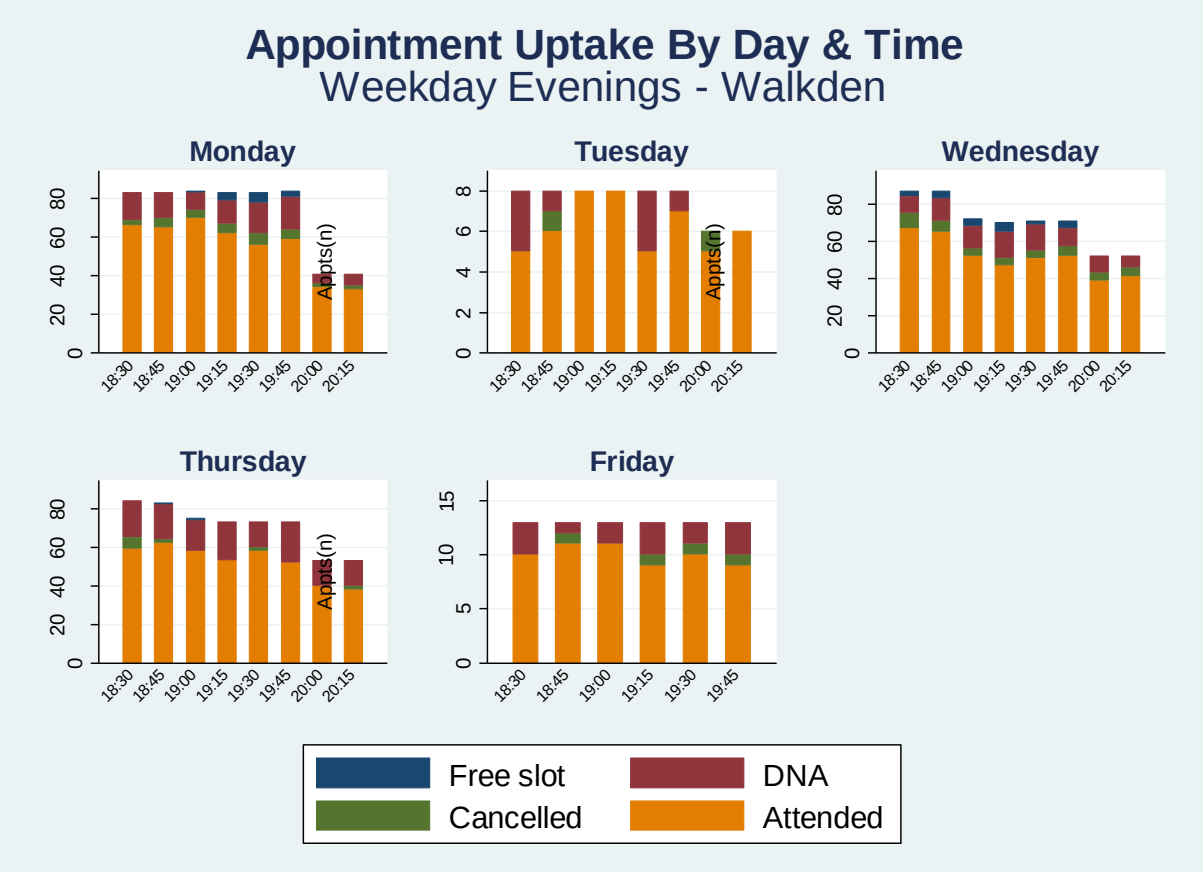
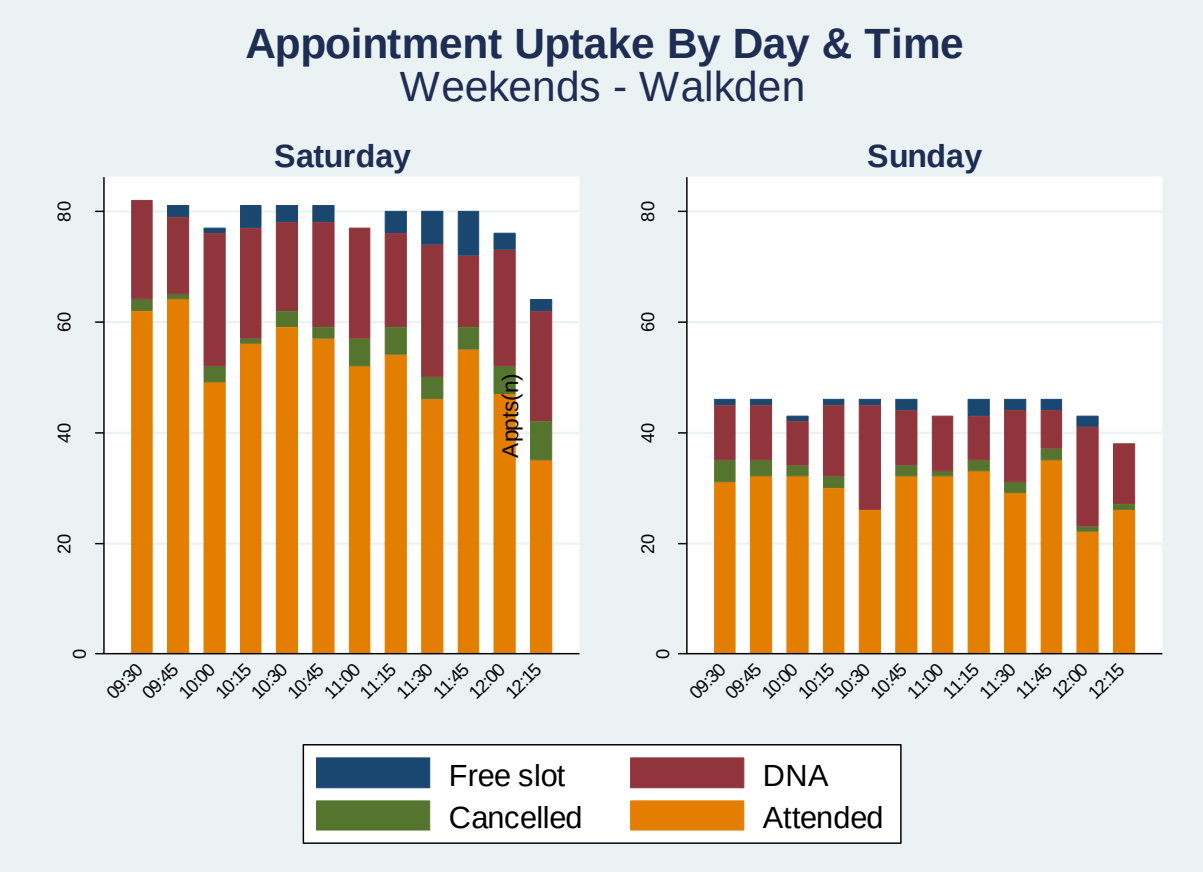


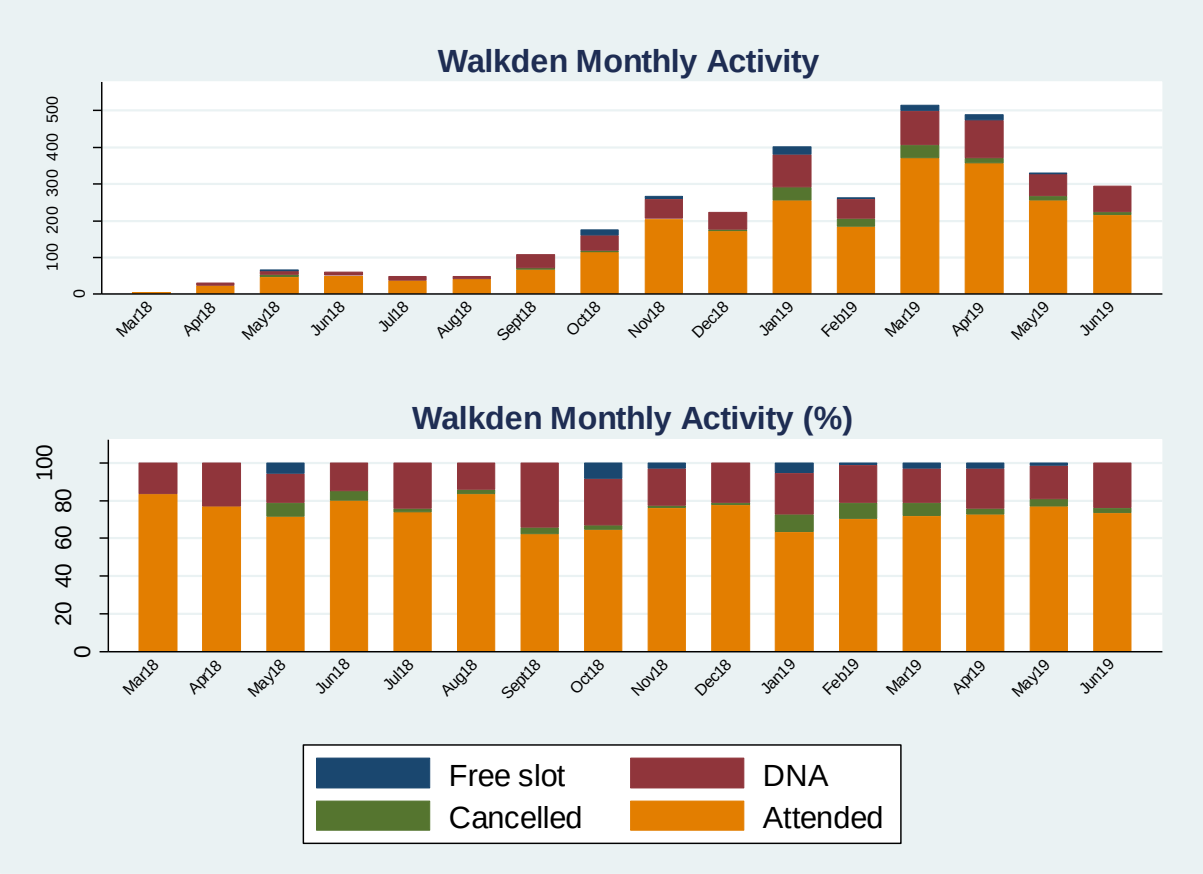
Figure A 32. SWEAP activity by weekend day and time – Walkden



Activity by month

Appointment activity by month is presented in Figure A 33, starting at March 2018. Provision started and remained low until September 2018, when overall more appointments tended to be offered. More recently (March 2019) the overall availability has declined. Attendance has been relatively constant, with observed dips in September/October 2018 and January 2019.

Figure A 33. SWEAP activity by month - Walkden



Provision by clinician type

Appointments by clinician type follow the trend observed in most other neighbourhoods and for Salford CCG as a whole, whereby GP appointments have dominated from the outset, with more HCA appointments being added over time (Table A 20). 81.95% of all appointments were with a GP, including 86.39% of 2018/19 appointments, and 73.07% of 2019/20 appointments in the first quarter. HCA appointments have represented nearly ¼ of the offering for 2019/20 (23.70%).

Table A 20. SWEAP appointments by wave and clinician type - Walkden

Financial wave	2017/18	2018/19	2019/20	All
GP (%)	6 (100.00)	1,904 (86.39)	814 (73.07)	**2,724 (81.95)**
ANP (%)	0 (0.00)	0 (0.00)	0 (0.00)	**0 (0.00)**
Nurse (%)	0 (0.00)	27 (1.23)	36 (3.23)	**63 (1.90)**
HCA (%)	0 (0.00)	273 (12.39)	264 (23.70)	**537 (16.16)**
Total	**6**	**2,204**	**1,114**	**3,324**

Uptake by practice

The Gill Medical Practice has been the highest user of SWEAP in Walkden to date, with its patients having the largest volume of appointments (Figure A 34) and the highest rate of appointments per 1,000 patients in 2019/20 so far (Figure A 35). Ellenbrook Medical Practice was the second highest overall, and had the highest rate of appointments per 1,000 patients for 2018/19. Cleggs Lane was the lowest user overall, and also as a rate per 1,000 for both financial waves analysed. This included no booking for 2019/20 to date. Orchard Medical Practice and Cherry Medical Practice are both low users.

Figure A 34. Practice use - Walkden

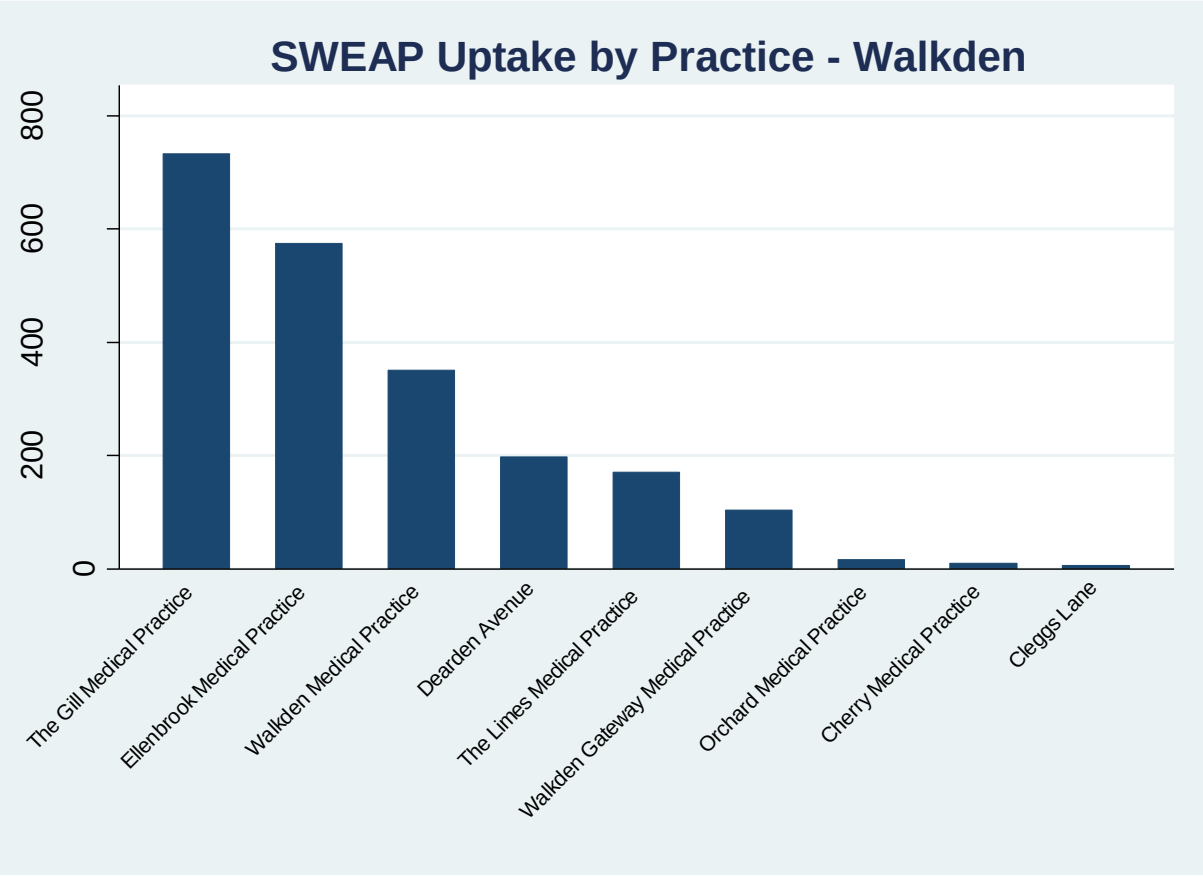
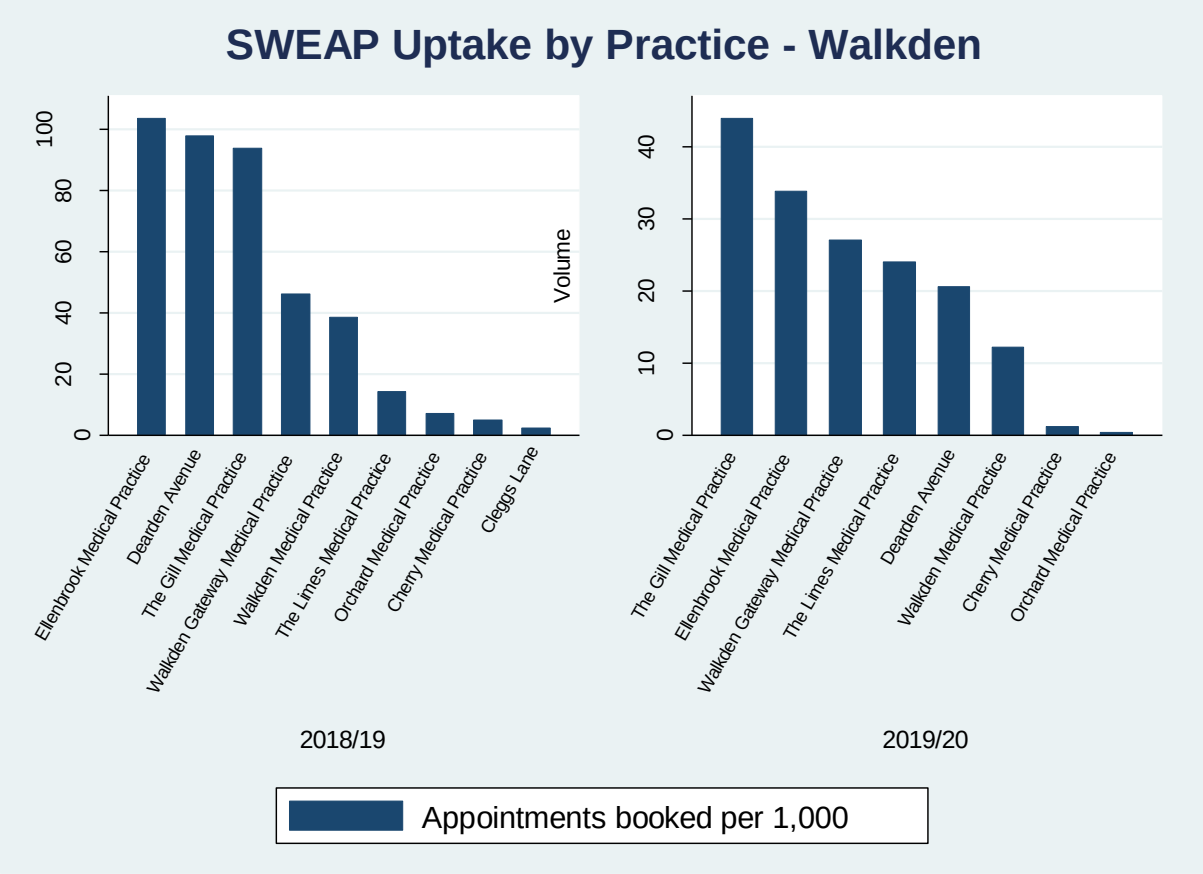


Figure A 35. Practice use (per 1,000 patients) by financial year - Walkden



Appendix 2: Impact analysis (full details)

Data collection

This section of the report presents the findings from assessments of correlations between SWEAP provision and urgent care activity related to Accident and Emergency (A&E), NHS 111, and Out of Hours (OOH) contacts.

Comparisons of average contacts per month per 1,000 registered patients before and after SWEAP enactment were conducted. SWEAP activation varied across neighbourhoods such that the after period varies by neighbourhood. To account for seasonal trends and the variations in months covered by different neighbourhoods we adjust for month in the analyses.

For each measure of impact we present:

1. Total contacts by financial year
2. Graphs of contacts per 1,000 registered patients per month by NHS Salford CCG and neighbourhood over the period 2014/15 to 2019/20
3. Graphs of the estimated change in contacts per 1,000 patients per month in the SWEAP period[31]

While we initially planned to conduct separate analyses for hub and non-hub practices this was deemed infeasible given the set-up of SWEAP. SWEAP is not housed/provided by individual practices. However, the scale of appointments booked across neighbourhoods may help identify a dosage effect. Additional analyses assessed whether practices with relatively greater dosage of SWEAP appointments experienced greater impacts on service use. These practices were identified as those with greater than 100 SWEAP appointments booked per 1,000 registered patients (Table A 21). For presentational purposes neighbourhoods are abbreviated to: Broughton; Eccles; Pendleton; Swinton; and Walkden hereon in.

Table A 21 Variations in SWEAP appointment dosage by neighbourhood (high dose practices in bold)

Neighbour-hood (total booked appts)	Practice	Practice list size	Total SWEAP appointments booked	Total SWEAP appointments booked per 1000 patients	% Neighbour-hood appointments
Broughton (n=2,764)	Leicester Road	4527	48	10.60	1.74
	Limefield Road	**5308**	**842**	**158.63**	**30.46**

[31] Estimates are from ordinary least squares regressions of the impact measure against month and neighbourhood dummies and a SWEAP dummy identifying whether SWEAP was live. Standard errors are robust and clustered by practice.

	Lower Broughton 1	2230	172	77.13	6.22
	Lower Broughton 3	6099	479	78.54	17.33
	Lower Broughton 4	2246	16	7.12	0.58
	Mocha Parade	2116	94	44.42	3.40
	Newbury Green	**10703**	**1113**	**103.99**	**40.27**
Eccles & Irlam (n=3,147)	Chapel Medical Practice	2380	91	38.24	2.89
	Eccles Gateway Medical Practice	**3270**	**461**	**140.98**	**14.65**
	Irlam Clinic	2944	56	19.02	1.78
	Irlam Group Practice	4102	54	13.16	1.72
	Irlam Medical Centre	4098	61	14.89	1.94
	Monton Medical Practice	**9248**	**1415**	**153.01**	**44.96**
	Mosslands Medical Practice	9115	32	3.51	1.02
	Springfield Medical Practice	9972	486	48.74	15.44
	St Andrew's Medical Practice 2	6474	217	33.52	6.90
	St Andrew's Medical Practice 3	3748	157	41.89	4.99
	St Andrew's Medical Practice 4	3842	117	30.45	3.72
	Salford Primary Care Together*	***16507***	***2075***	***125.70***	***N/A***
Ordsall & Claremont (n=1,290)	Clarendon Medical Practice	9538	21	2.20	1.63
	Cornerstone	2291	35	15.28	2.71
	Langworthy Medical Practice	15916	402	25.26	31.16
	Ordsall Health Surgery	10198	72	7.06	5.58
	Orient Road Medical Practice	5286	404	76.42	31.32

	Pendleton Medical Practice	3631	152	41.86	11.78
	Salford Medical Practice 1	3793	35	15.28	2.71
	Sorrel Bank	9010	135	14.98	10.47
	The Heights Medical Practice	4673	29	6.21	2.25
	The Willows	2990	5	1.67	0.39
Swinton (n=5,251)	**Silverdale Medical Practice**	**11974**	**1775**	**148.24**	**33.80**
	The Lakes	**9560**	**1580**	**165.27**	**30.09**
	The Poplars	**11675**	**1247**	**106.81**	**23.75**
	The Sides	12774	649	50.81	12.36
Walkden & Little Hulton (n=2,713)	Cherry Medical Practice	2649	16	6.04	0.59
	Cleggs Lane	3196	7	2.19	0.26
	Dearden Avenue	**2378**	**284**	**119.43**	**10.47**
	Ellenbrook Medical Practice	**5054**	**697**	**137.91**	**25.69**
	Orchard Medical Practice	2855	21	7.36	0.77
	The Gill Medical Practice	**6282**	**899**	**143.11**	**33.14**
	The Limes Medical Practice	5370	205	38.18	7.56
	Walkden Gateway Medical Practice	1993	148	74.26	5.46
	Walkden Medical Practice	8589	436	50.76	16.07

* Salford Primary Care Together operates across three neighbourhoods and is not included in % neighbourhood appointments estimates

A&E attendances

NHS Salford CCG provided A&E activity data. The data covered attendance activity for the period April 2014 to March 2019. Data were restricted to only patients registered with a NHS Salford CCG general practice. Data for each attendance

included: age band, gender, practice code, referral mode, healthcare resource group (HRG) code, cost, arrival date, and arrival mode.

We sought to assess whether the introduction of the SWEAP service was associated with changes in A&E activity in:

i. Total A&E attendance
ii. A&E attendances by HRG intensity (minor attendances)
iii. A&E attendances by referral (self-referral attendances)
iv. A&E attendances by referral and HRG intensity (minor self-referrals)

The analyses are conducted for NHS Salford CCG and subsequently stratified by neighbourhood.

Total A&E attendance

45 practices were modelled over 60 months (1 practice (P87668) was not present in 2018/19 and was removed from the analysis). Activity over each financial year are presented in Table A 22. There are around 100,000-110,000 A&E attendances per financial year, both attendances and cost have risen over the period. As the volume of contacts may be reflective of population coverage (a larger population may be expected to have a larger volume of contacts), we present attendances per 1,000 registered patients. Approximately 400 A&E attendances per 1,000 registered patients are made each financial year (approximately 33 per 1,000 patients per month). The average cost of A&E attendances has risen while the average volume of attendances per 1,000 has remained relatively stable suggesting patients are presenting at A&E with more expensive health care requirements. Figure A 36 plots monthly A&E attendances over the period. Figure A 37 plots monthly cost of A&E attendances over the period. Monthly A&E attendances and cost by high and low dose are provided in Figures A 38 and A 39. Monthly A&E attendances and cost by neighbourhood are provided in Figures A 40 and A 41.

Table A 22 A&E attendance by financial year

Financial year	Total A&E attendances	Cost A&E attendances (£)	List size*	Attendances per year per 1000 patients	Cost per year per 1000 patients (£)
2014/15	99,972	8,707,938	248,005	403	35,112
2015/16	106,049	10,165,966	254,105	417	40,007
2016/17	108,220	10,430,281	261,184	414	39,935
2017/18	108,589	12,571,268	267,283	406	47,034
2018/19	111,087	14,233,958	272,631	407	52,210
Total	533,917				

*Registered patients as at April of the financial year

Figure A 36 NHS Salford CCG A&E attendance per month per 1,000 registered patients

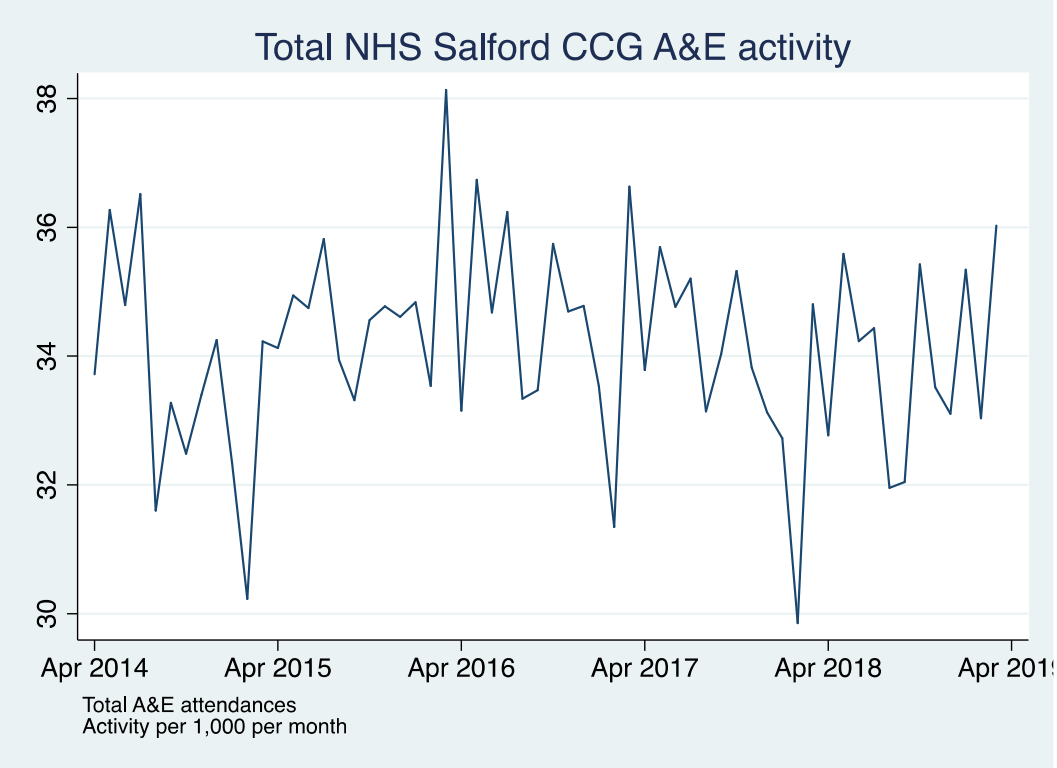


Figure A 37 NHS Salford CCG A&E attendance cost per month per 1,000 registered patients

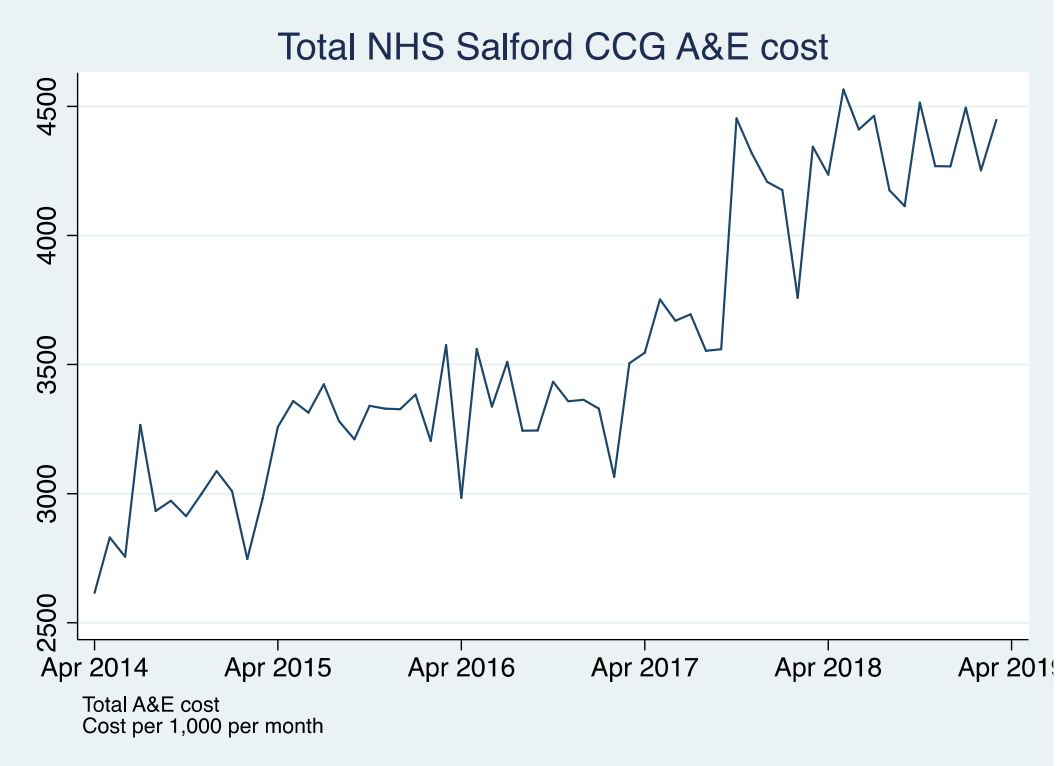


Figure A 38 NHS Salford CCG (by dose) A&E attendance per month per 1,000 registered patients

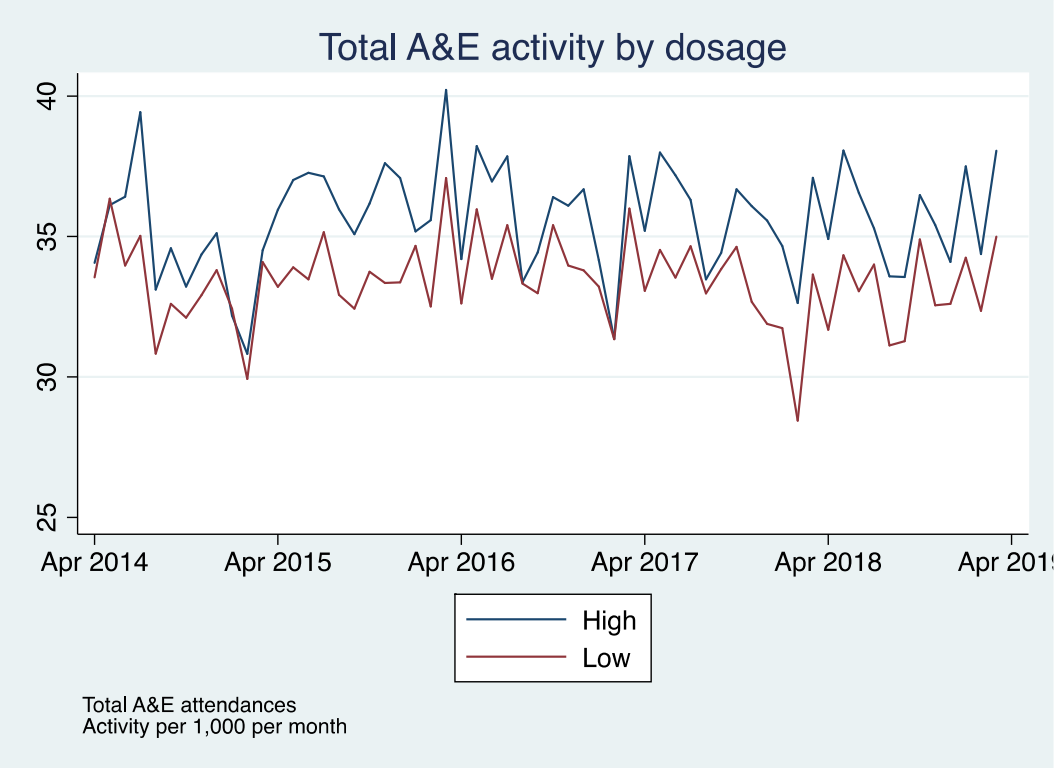


Figure A 39 NHS Salford CCG (by dose) A&E attendance cost per month per 1,000 registered patients

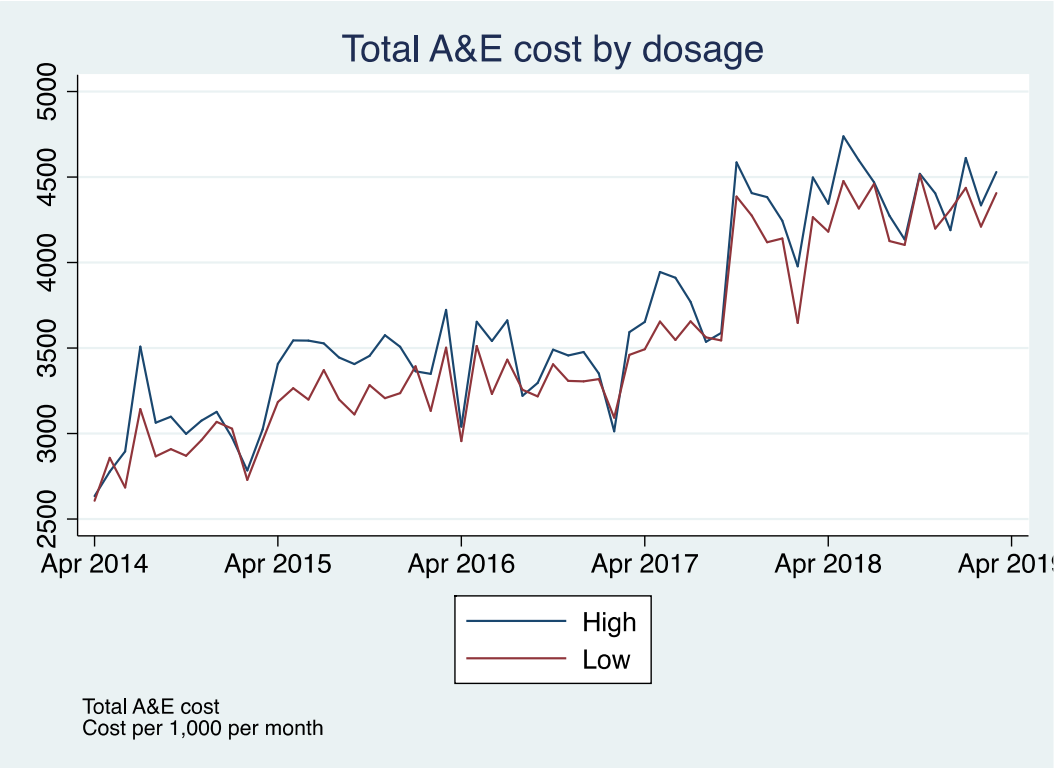


Figure A 40 Neighbourhood A&E attendance per month per 1,000 registered patients

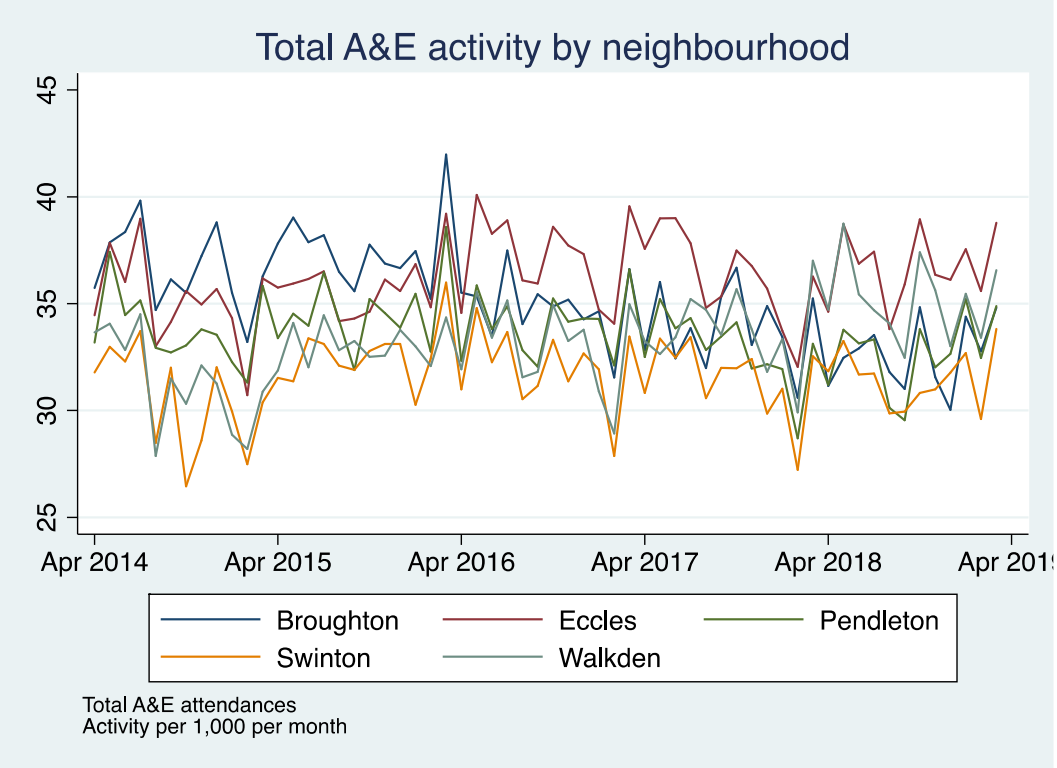
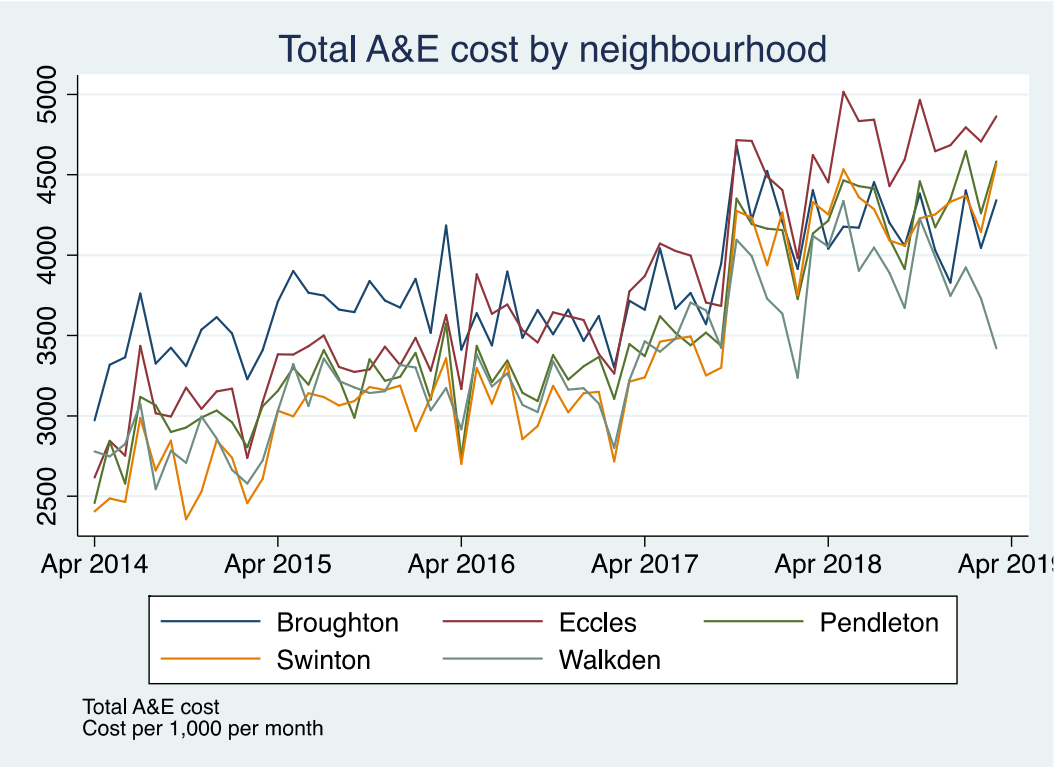


Figure A 41 Neighbourhood A&E attendance cost per month per 1,000 registered patients



In a linear regression of A&E attendances in NHS Salford CCG we found on average 0.35 fewer A&E contacts per month per 1,000 patients in the SWEAP period (this difference was statistically insignificant, p=0.407). By dosage no significant change in attendances were found for either grouping of practices. Neighbourhood estimates also found no significant change in A&E per 1,000 patients per month in the SWEAP period aside from Pendleton where A&E attendances have reduced in the SWEAP period. These estimates are presented in Figure A 42/Table A 23. Interpretation is as follows: for NHS Salford CCG there is an estimated 0.35 lower volume of A&E attendances per 1,000 patients per month in the SWEAP period, this estimated effect is not statistically significant because the 95% confidence interval crosses zero. For NHS Salford CCG, both dosage groups, and all neighbourhoods except Broughton we found a significantly higher cost per 1,000 patients per month in the SWEAP period (£1,092.93 for NHS Salford CCG, p<0.001) (Figure A 43/Table A 23).

Figure A 42 Estimated change in A&E attendance per month per 1,000 registered patients

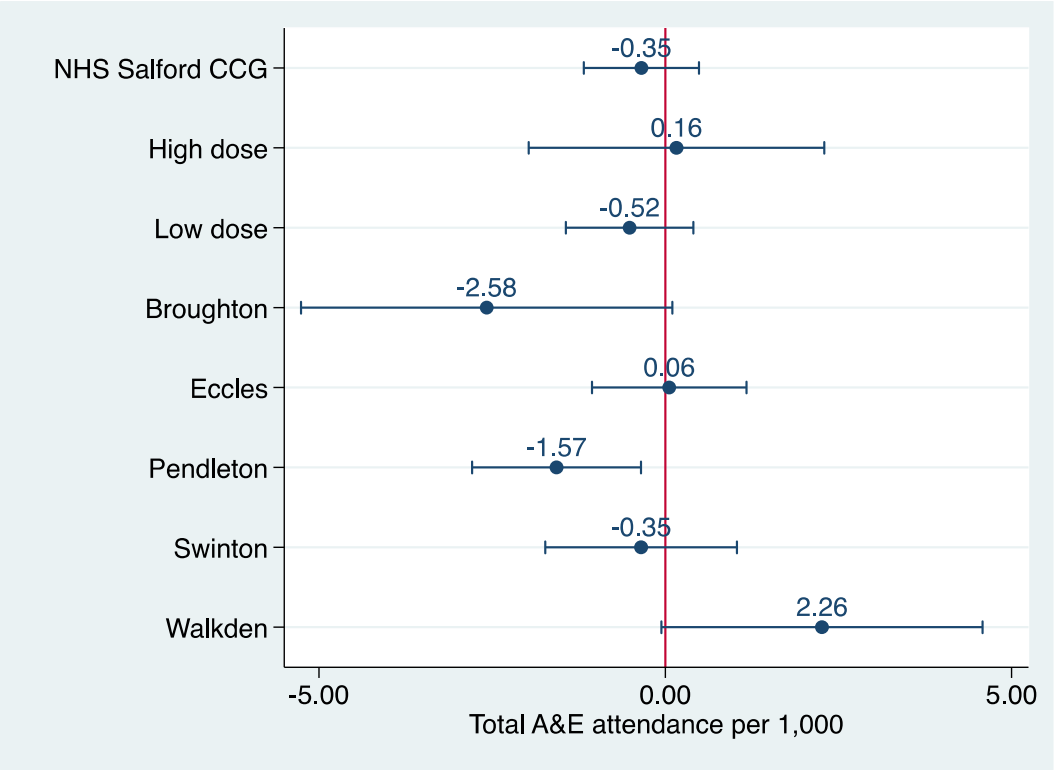


Figure A 43 Estimated change in A&E attendance cost per month per 1,000 registered patients

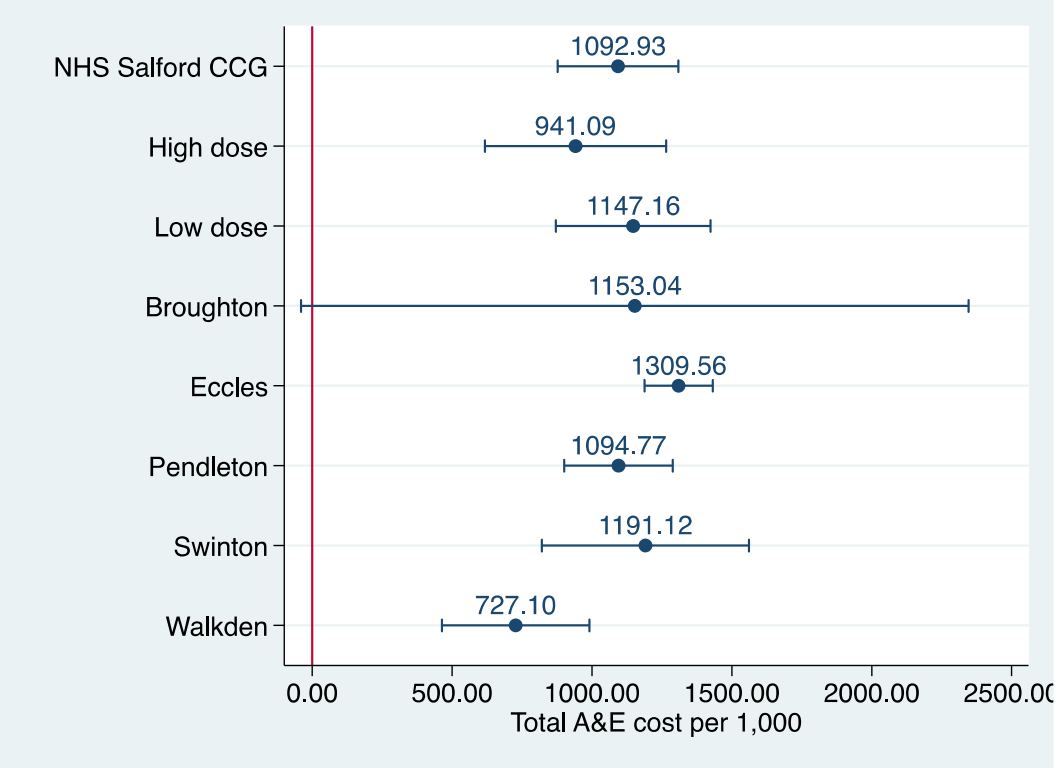


Table A 23 Estimated change in A&E attendance per month per 1,000 registered patients

	Total A&E attendances per 1,000	Total A&E cost per 1,000 (£)
NHS Salford CCG (n=2,700)	-0.35 (p=0.407)	**1,092.93 (p<0.001)**
Dose		
High dose (n=660)	0.16 (p=0.870)	**941.09 (p<0.001)**
Low dose (n=2,040)	-0.52 (p=0.263)	**1147.17 (p<0.001)**
Neighbourhood		
Broughton (n=540)	-2.58 (p=0.057)	1,153.04 (p=0.056)
Eccles (n=720)	0.06 (p=0.912)	**1,309.56 (p<0.001)**
Pendleton (n=600)	**-1.57 (p=0.017)**	**1,094.77 (p<0.001)**
Swinton (n=240)	-0.35 (p=0.480)	**1,191.12 (p=0.002)**
Walkden (n=600)	2.26 (p=0.055)	**727.10 (p<0.001)**

Estimates from separate linear regressions (Ordinary Least Squares) of volume or cost of A&E attendances against month dummy variables and a SWEAP active identifier. Neighbourhood dummies included in NHS Salford CCG regression. Robust standard errors are clustered at practice level.
Estimates with a p-value less than 0.05 are deemed significant at conventional levels of statistical significance.

Minor A&E attendances

Minor A&E attendances were identified by attendances with HRG codes of "VB06Z", "VB09Z", "VB10Z", and "VB11Z". These groupings have been used in previous assessments of A&E attendances as being potential sources of activity that extensions of access to general practice may avoid.[32] Attendance and costs per 1,000 patients per financial year are provided in Table A 24. Unlike total A&E attendances these appear to rise, peaking in 2015/16, and then fall year on year.

Table A 24 Minor A&E attendance by financial year

Financial year	Minor Attendances per year per 1000 patients	Cost minor attendances per year per 1000 patients (£)
2014/15	237	16,211
2015/16	261	18,056
2016/17	256	17,748
2017/18	212	16,045
2018/19	172	12,698

*Registered patients as at April of the financial year

Figures A 44 and A 45 plot total NHS Salford CCG minor A&E attendance volume and costs respectively. There is a clear drop in attendances and costs from April 2017. A similar drop is present for each neighbourhood and dose group (Figures A 46 to A 49).

[32] Whittaker W, Anselmi L, Kristensen S, et al. Associations between extending access to primary care and emergency department visits: a difference-in-differences analysis. *PLoS Med* 2016;13(9):e1002113

Figure A 44 NHS Salford CCG minor A&E attendance per month per 1,000 registered patients

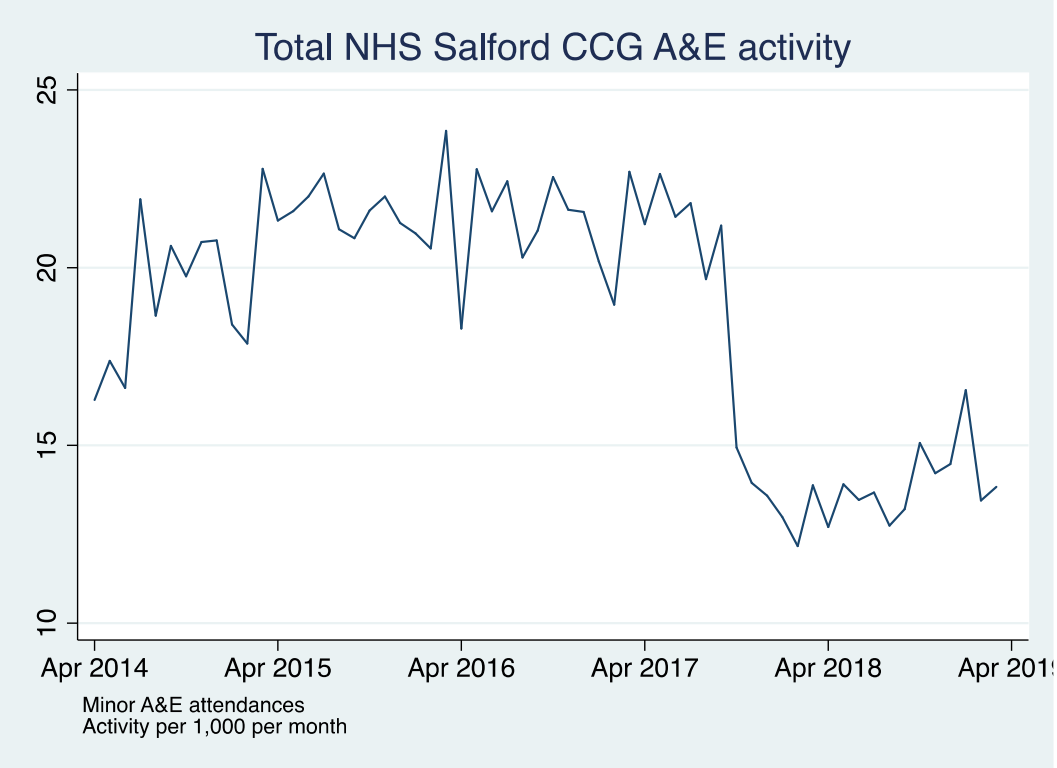


Figure A 45 NHS Salford CCG minor A&E attendance cost per month per 1,000 registered patients

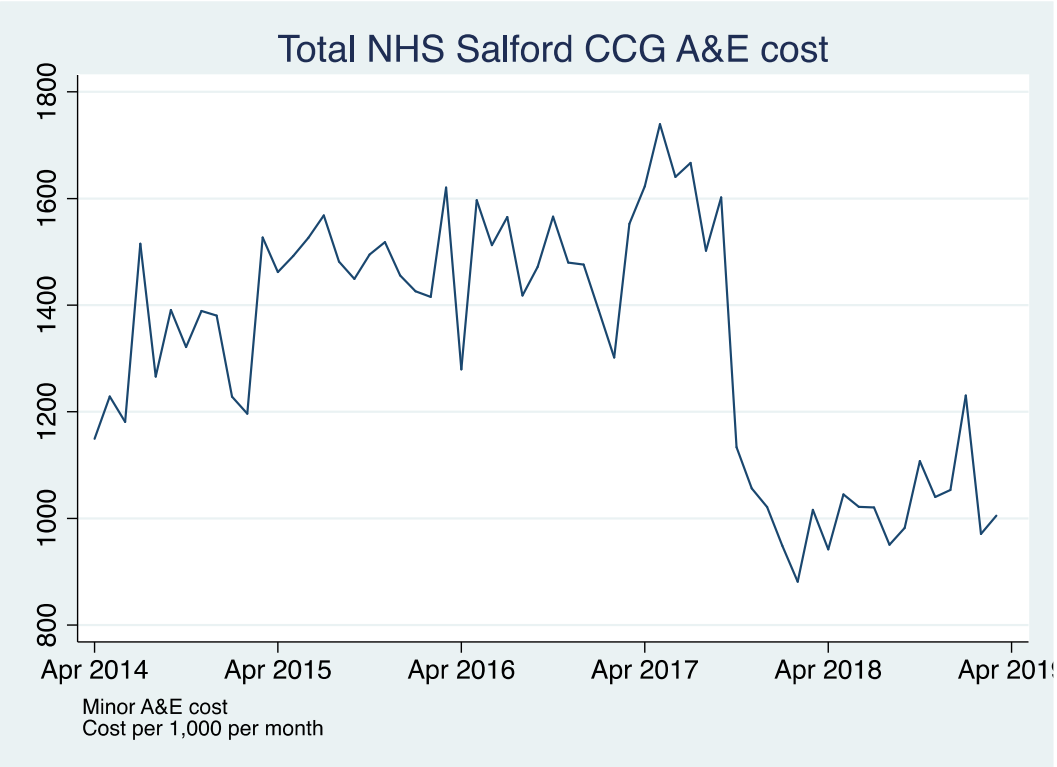


Figure A 46 NHS Salford CCG (by dose) minor A&E attendance per month per 1,000 registered patients

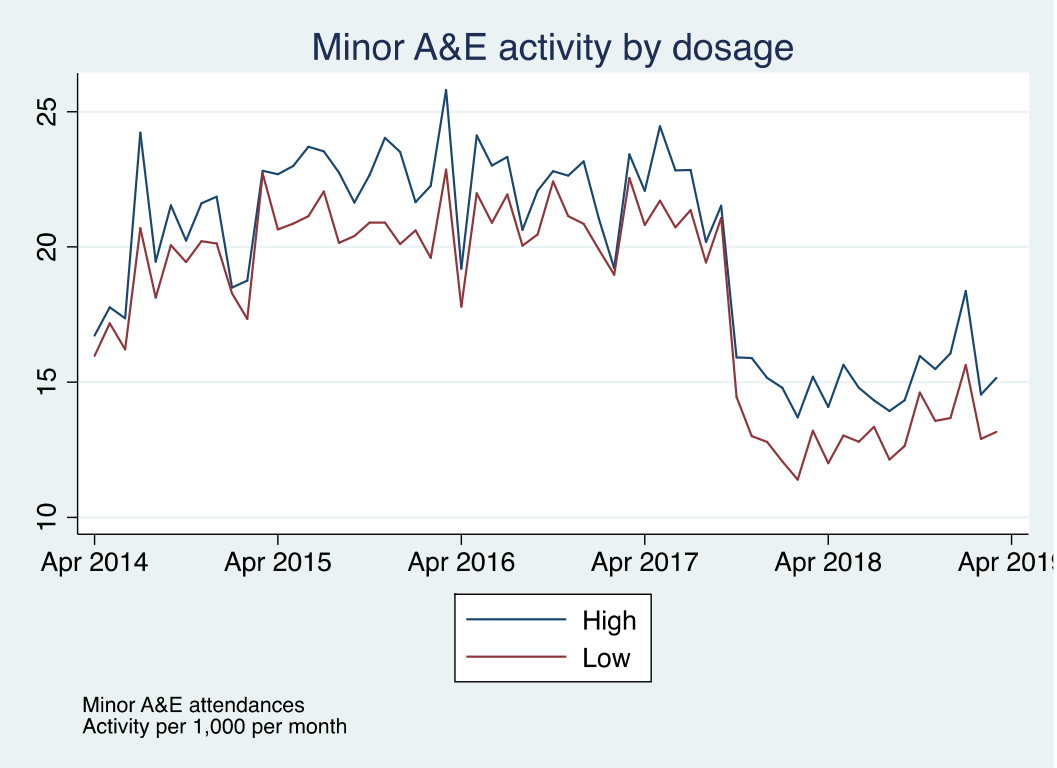


Figure A 47 NHS Salford CCG (by dose) minor A&E attendance cost per month per 1,000 registered patients

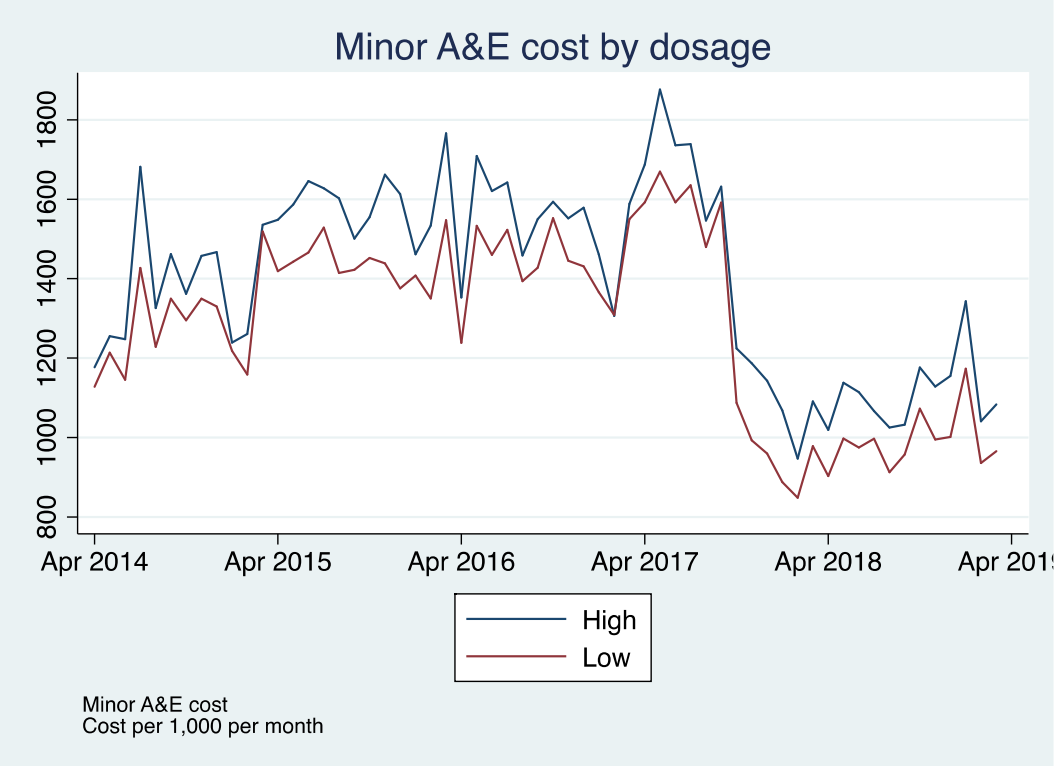


Figure A 48 Neighbourhood minor A&E attendance per month per 1,000 registered patients

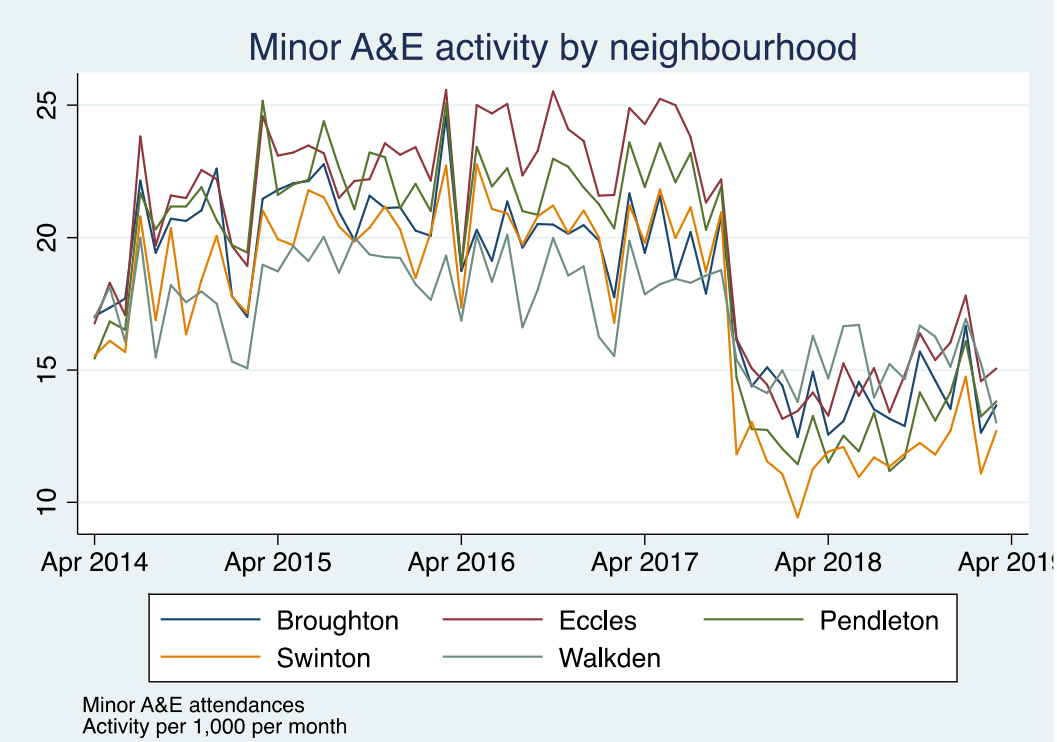
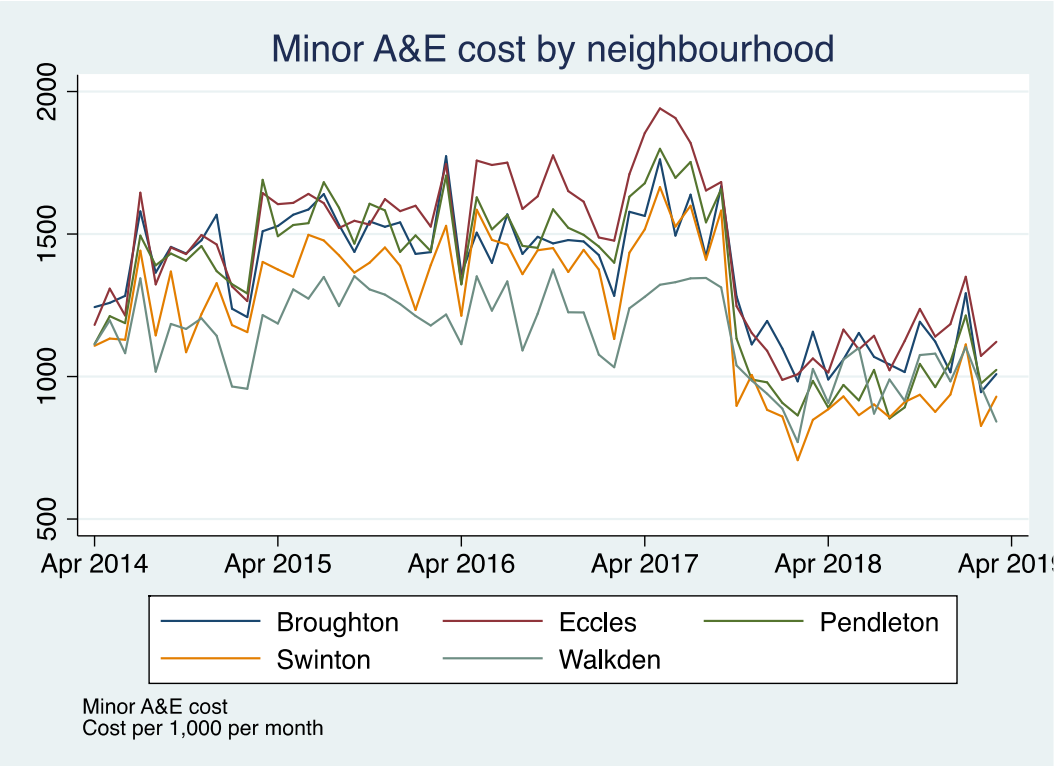


Figure A 49 Neighbourhood minor A&E attendance cost per month per 1,000 registered patients



Estimates of the change in minor A&E attendance are plotted in Figure A 50 and presented in Table A 25. For each neighbourhood, dose group, and for NHS Salford CCG as a whole, there are significant reductions in minor A&E attendance, this is also found for minor A&E costs (Figure A51/Table A25).

Figure A 50 Estimated change in minor A&E attendance per month per 1,000 registered patients

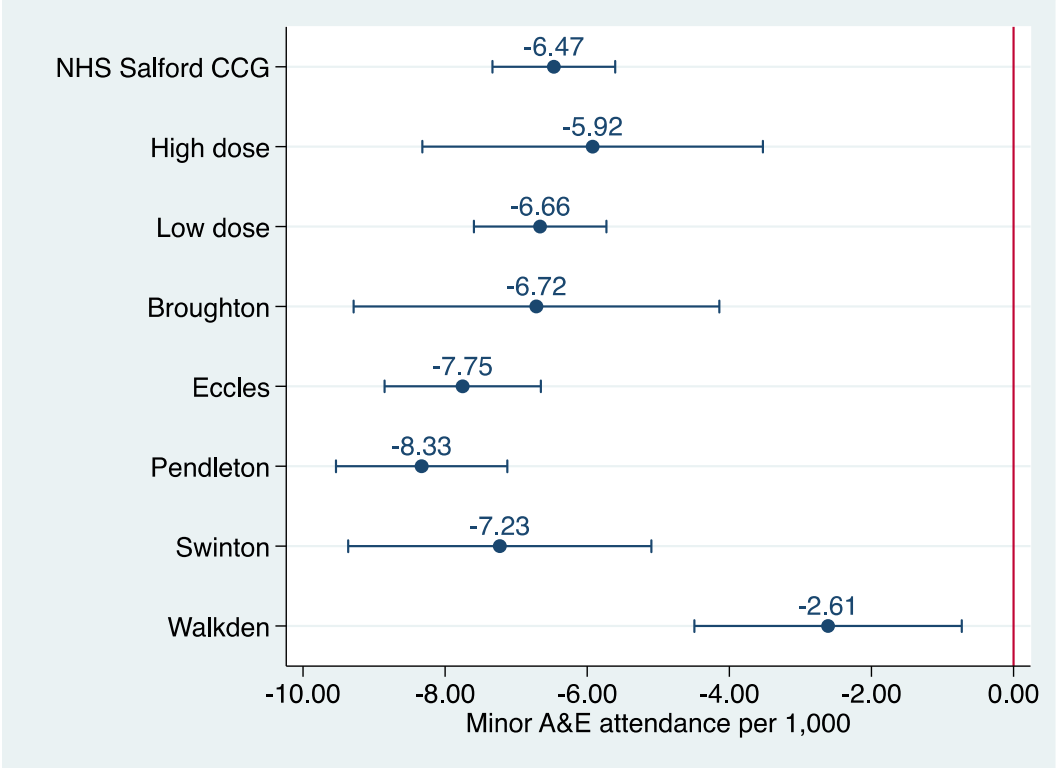


Figure A 51 Estimated change in minor A&E attendance cost per month per 1,000 registered patients

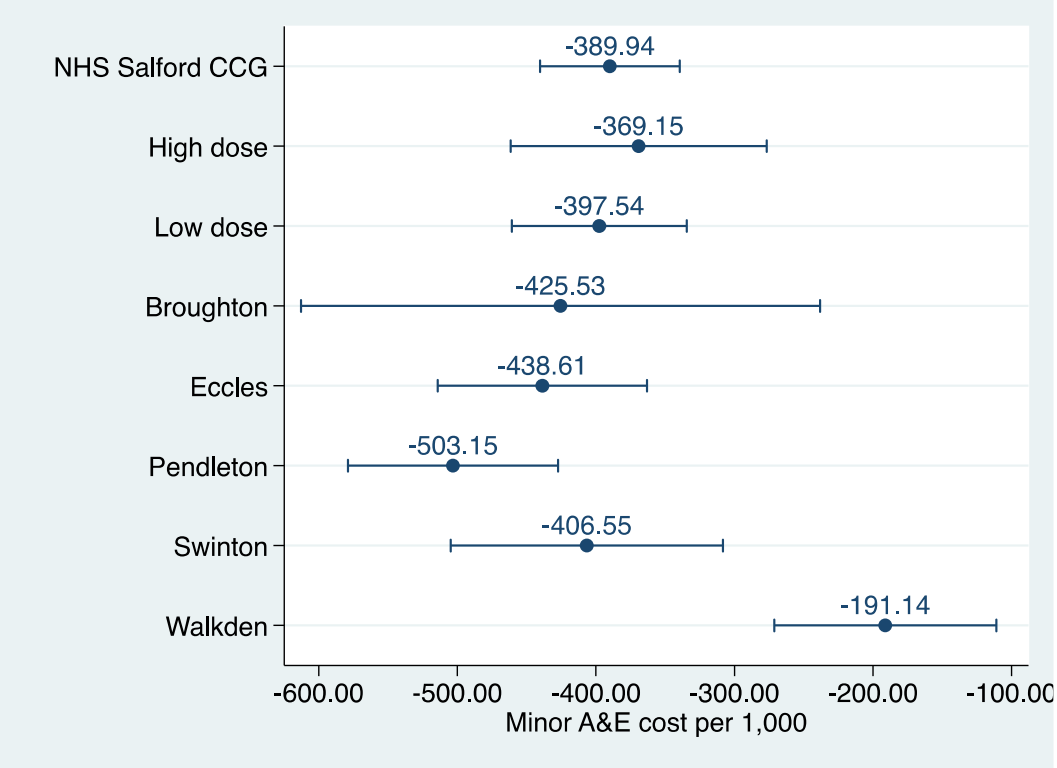


Table A 25 Estimated change in minor A&E attendance per month per 1,000 registered patients

	Minor A&E attendances per 1,000	Minor A&E cost per 1,000 (£)
NHS Salford CCG (n=2,700)	**-6.47 (p<0.001)**	**-389.94 (p<0.001)**
Dose		
High dose (n=660)	**-5.92 (p<0.001)**	**-369.15 (p<0.001)**
Low dose (n=2,040)	**-6.66 (p<0.001)**	**-397.54 (p<0.001)**
Neighbourhood		
Broughton (n=540)	**-6.72 (p<0.001)**	**-425.53 (p=0.001)**
Eccles (n=720)	**-7.75 (p<0.001)**	**-438.61 (p<0.001)**
Pendleton (n=600)	**-8.33 (p<0.001)**	**-503.15 (p<0.001)**
Swinton (n=240)	**-7.23 (p=0.002)**	**-406.55 (p=0.001)**
Walkden (n=600)	**-2.61 (p=0.012)**	**-191.14 (p<0.001)**

Estimates from separate linear regressions (Ordinary Least Squares) of volume or cost of minor A&E attendances against month dummy variables and a SWEAP active identifier. Neighbourhood dummies included in NHS Salford CCG regression. Robust standard errors are clustered at practice level.
Estimates with a p-value less than 0.05 are deemed significant at conventional levels of statistical significance.

Self-referral attendances

We separated self-referral attendances to assess whether SWEAP is associated with reductions in patients self-referring to A&E. Attendance and costs per 1,000 patients per financial year are provided in Table A 26, these follow the pattern observed for total A&E attendances with no clear trend in attendance volume but rising cost. Figures A 52 and A 53 plot total NHS Salford CCG self-referral A&E attendance volume and costs respectively. Similar attendance and cost are found by neighbourhood and dose group (Figures A 54 to A57).

Table A 26 Self-referral A&E attendance by financial year

Financial year	Self-referral Attendances per year per 1000 patients	Cost self-referral attendances per year per 1000 patients (£)
2014/15	275	22,180
2015/16	287	25,389
2016/17	288	25,673
2017/18	271	28,696
2018/19	295	33,846
Total		

*Registered patients as at April of the financial year

Figure A 52 NHS Salford CCG self-referral A&E attendance per month per 1,000 registered patients

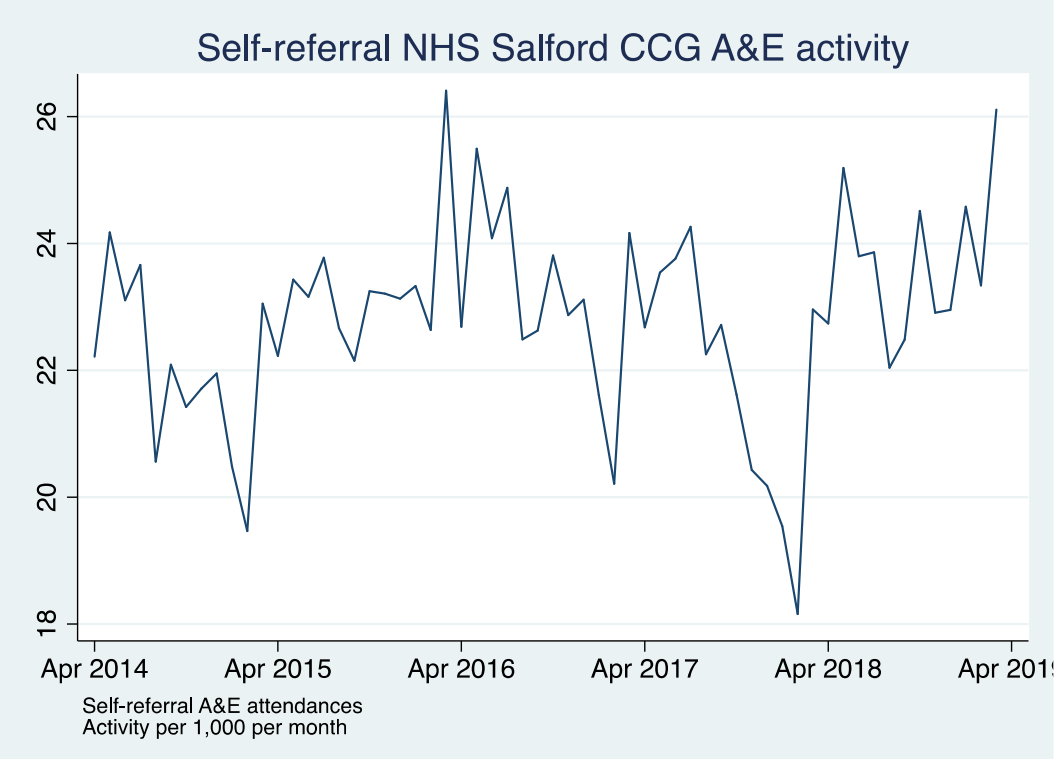


Figure A 53 NHS Salford CCG self-referral A&E attendance cost per month per 1,000 registered patients

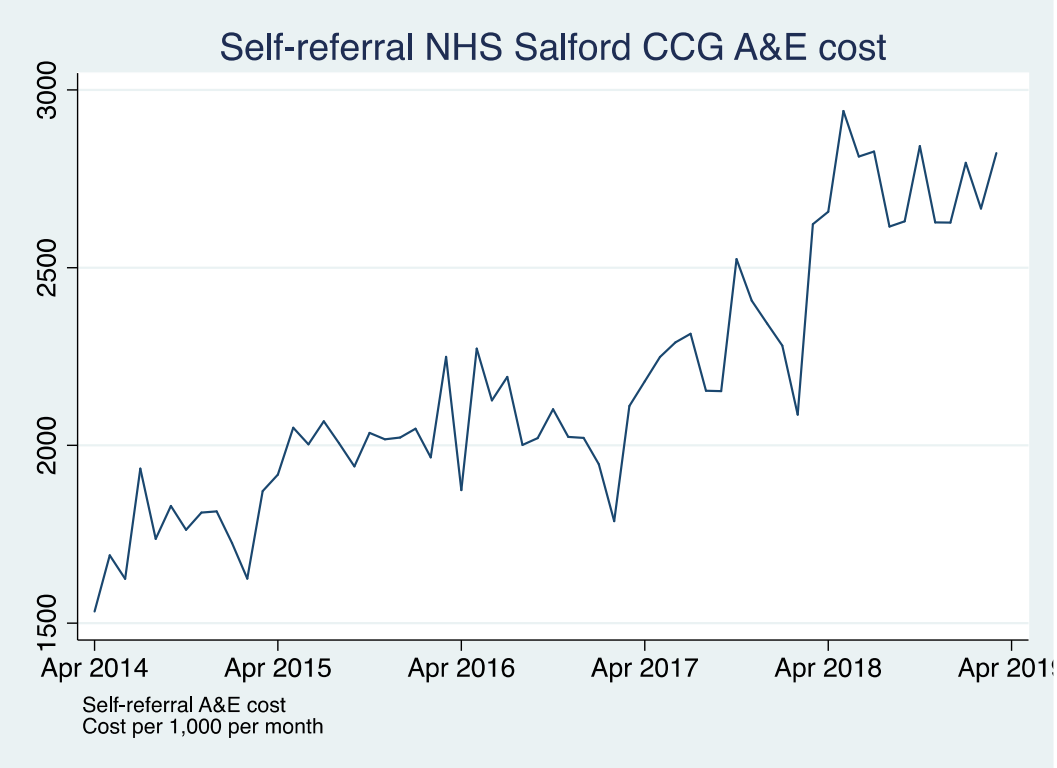


Figure A 54 NHS Salford CCG (by dose) self-referral A&E attendance per month per 1,000 registered patients

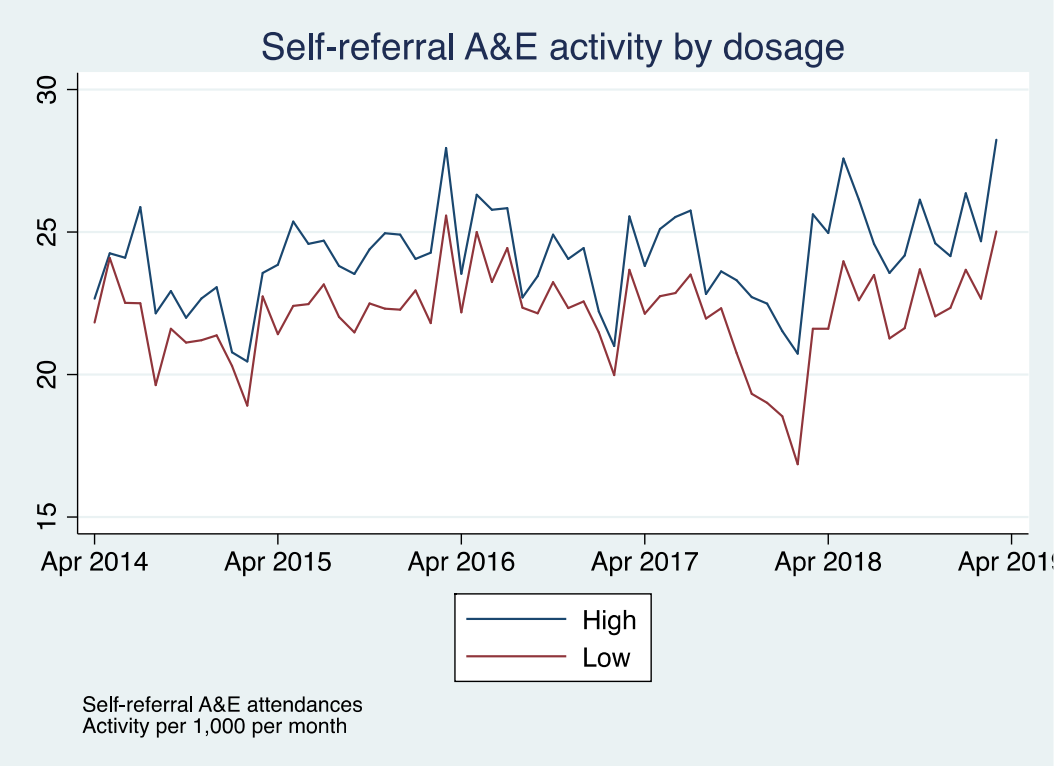


Figure A 55 NHS Salford CCG (by dose) self-referral A&E attendance cost per month per 1,000 registered patients

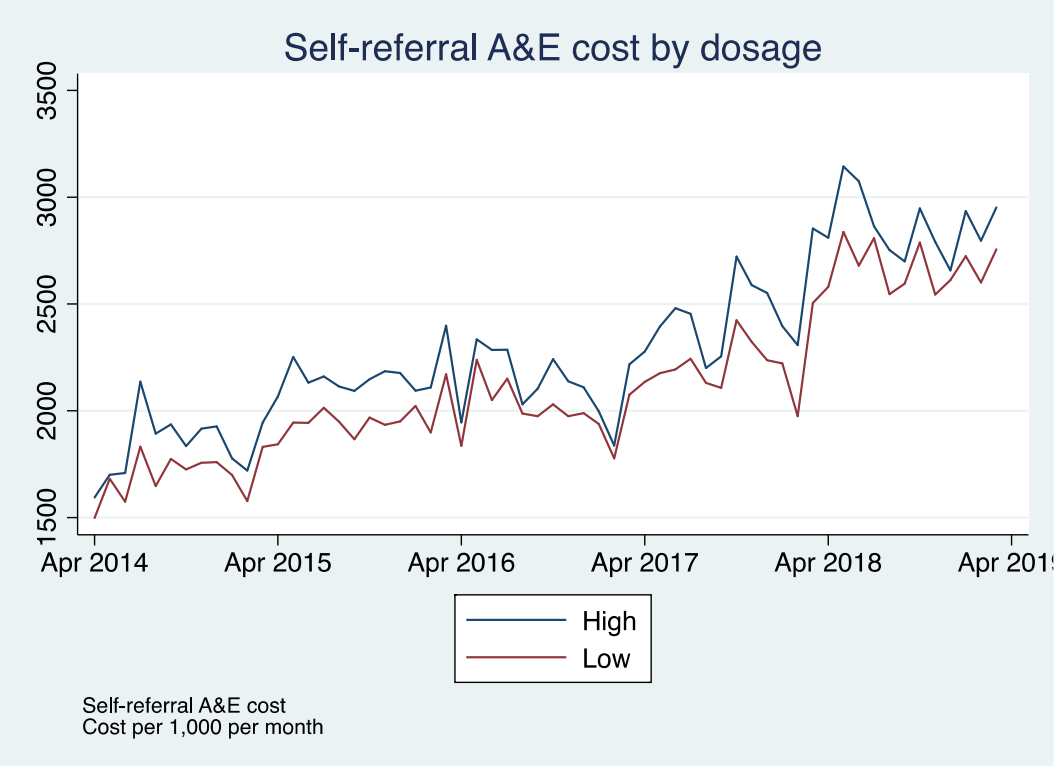


Figure A 56 Neighbourhood self-referral A&E attendance per month per 1,000 registered patients

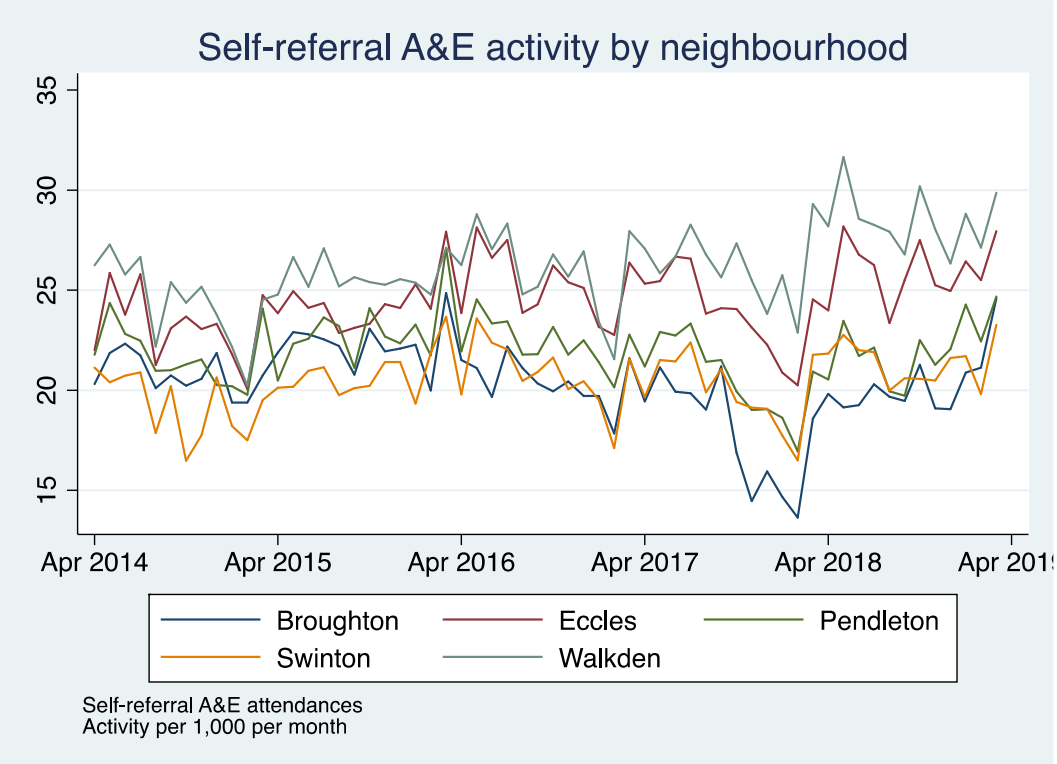
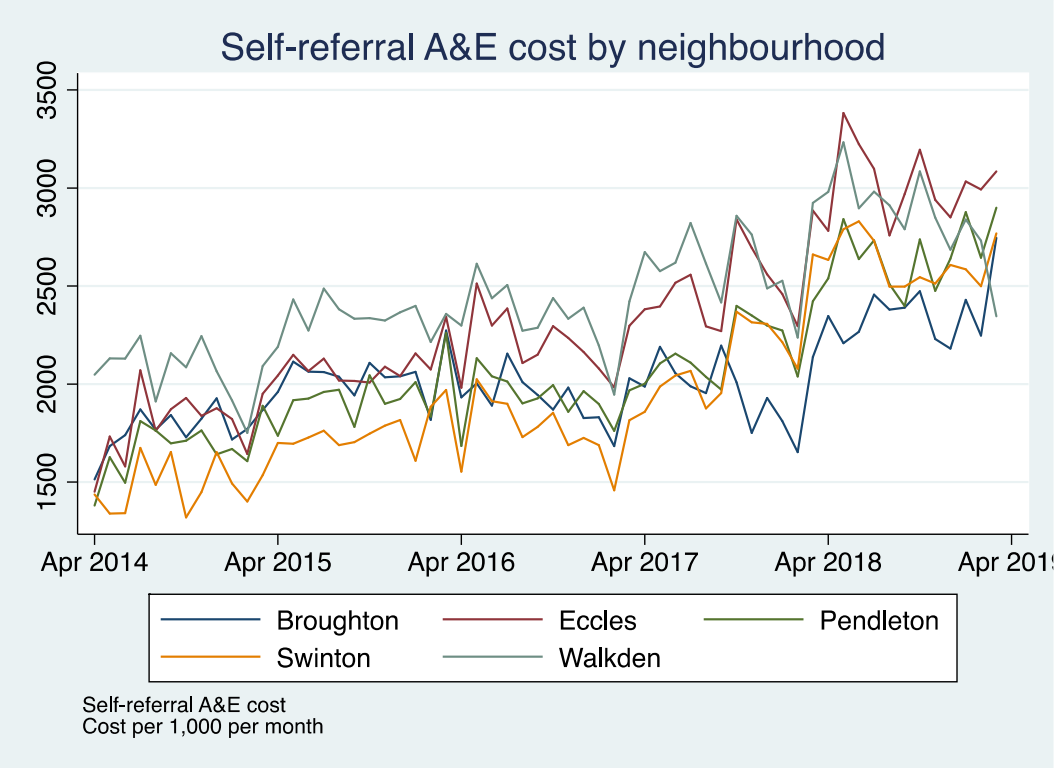


Figure A 57 Neighbourhood self-referral A&E attendance cost per month per 1,000 registered patients



Estimates of the change in self-referral A&E attendance are plotted in Figure A 58 and presented in Table A 27. Only the Walkden neighbourhood experienced any significant change in self-referral attendances at A&E in the SWEAP period, this being an increase of 2.62 attendances per 1,000 patients per month. All neighbourhoods, dose groups, and NHS Salford CCG as a whole experienced significant increases in self-referral A&E costs in the SWEAP period (Figure A 59/Table A 27).

Figure A 58 Estimated change in self-referral A&E attendance per month per 1,000 registered patients

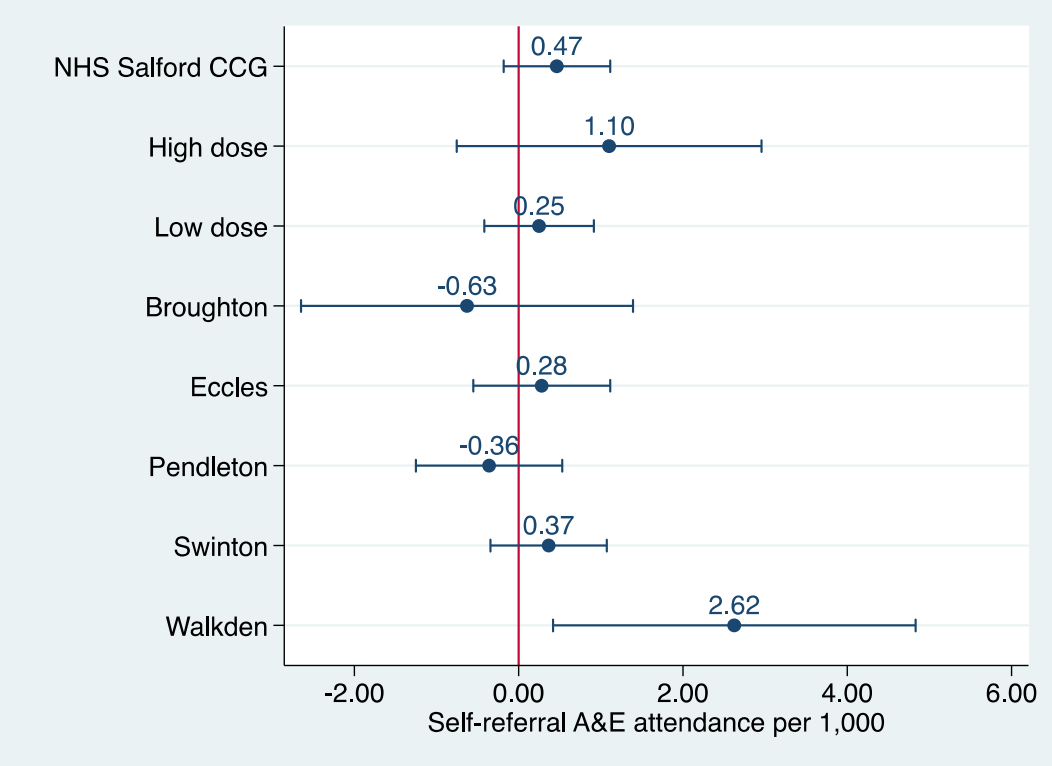


Figure A 59 Estimated change in self-referral A&E attendance cost per month per 1,000 registered patients

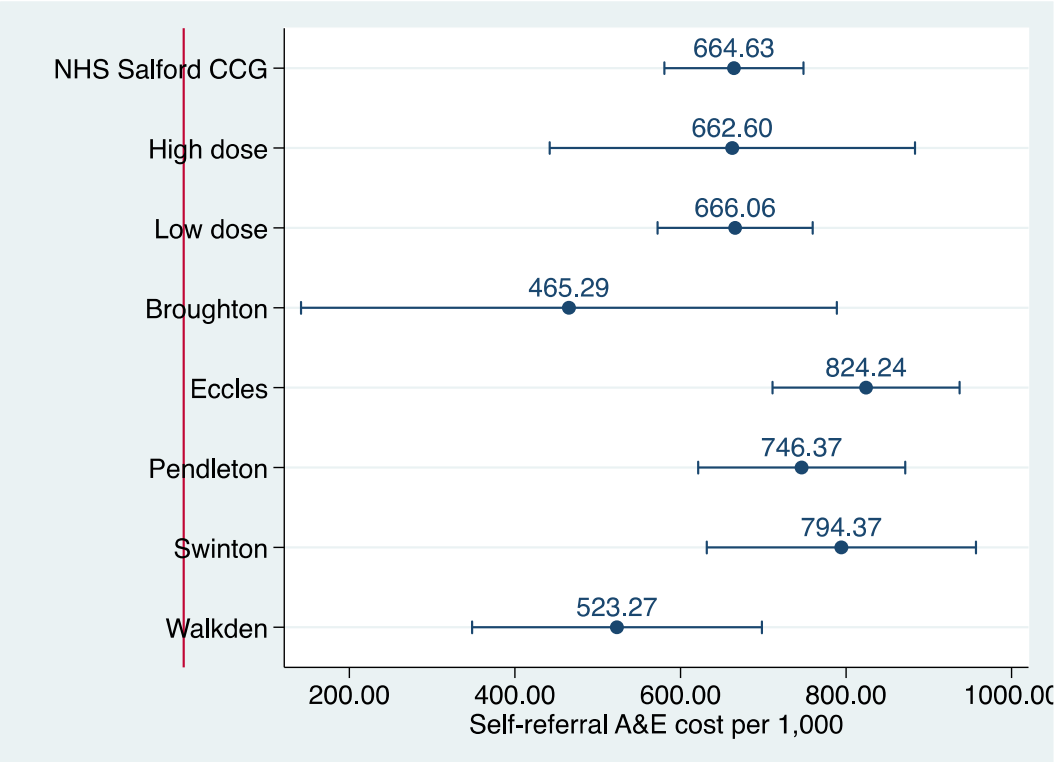


Table A 27 Estimated change in self-referral A&E attendance per month per 1,000 registered patients

	Self-referral A&E attendances per 1,000	Self-referral A&E cost per 1,000 (£)
NHS Salford CCG (n=2,700)	0.47 (p=0.155)	**664.63 (p<0.001)**
Dose		
High dose (n=660)	1.10 (p=0.215)	**662.60 (p<0.001)**
Low dose (n=2,040)	0.25 (p=0.452)	**666.06 (p<0.001)**
Neighbourhood		
Broughton (n=540)	-0.63 (p=0.494)	**465.29 (p=0.011)**
Eccles (n=720)	0.28 (p=0.473)	**824.24 (p<0.001)**
Pendleton (n=600)	-0.36 (p=0.386)	**746.37 (p<0.001)**
Swinton (n=240)	0.37 (p=0.198)	**794.37 (p=0.001)**
Walkden (n=600)	**2.62 (p=0.025)**	**523.27 (p<0.001)**

Estimates from separate linear regressions (Ordinary Least Squares) of volume or cost of self-referral A&E attendances against month dummy variables and a SWEAP active identifier. Neighbourhood dummies included in NHS Salford CCG regression. Robust standard errors are clustered at practice level.
Estimates with a p-value less than 0.05 are deemed significant at conventional levels of statistical significance.

Self-referral minor attendances

The final specification for A&E attendance concerned self-referral minor A&E attendances, this was to narrow the focus of minor attendances to those where the patient had self-referred and to be in line with past evaluations.[33] Attendance and costs per 1,000 patients per financial year are provided in Table A 28. These follow the pattern observed for minor A&E attendances with reductions in attendance and costs from April 2017. Figures A 60 and A 61 plot total NHS Salford CCG self-referral minor A&E attendance volume and costs respectively. Similar attendance and cost are found by neighbourhood and dose group (Figures A 62 to A 65).

Table A 28 Self-referral minor A&E attendance by financial year

Financial year	Self-referral Attendances per year per 1000 patients	Cost self-referral attendances per year per 1000 patients (£)
2014/15	176	11,819
2015/16	201	13,595
2016/17	194	13,327
2017/18	155	11,513
2018/19	133	9,762
Total		

*Registered patients as at April of the financial year

[33] Whittaker W, Anselmi L, Kristensen S, et al. Associations between extending access to primary care and emergency department visits: a difference-in-differences analysis. *PLoS Med* 2016;13(9):e1002113

Figure A 60 NHS Salford CCG self-referral minor A&E attendance per month per 1,000 registered patients

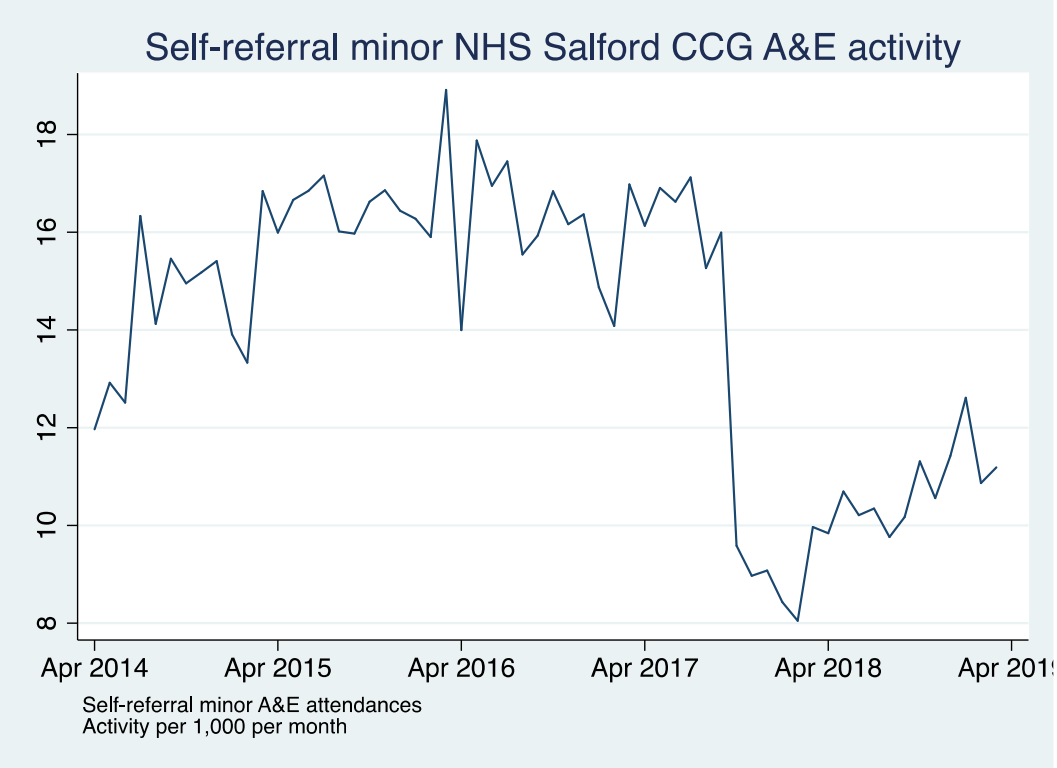


Figure A 61 NHS Salford CCG self-referral minor A&E attendance cost per month per 1,000 registered patients

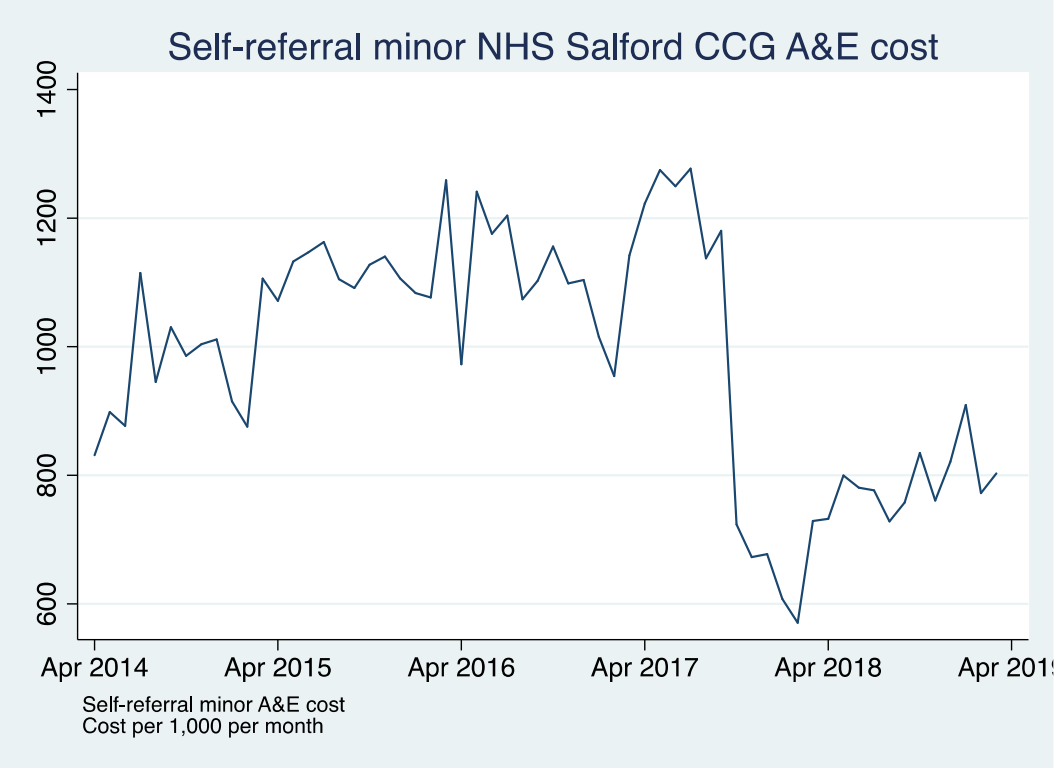


Figure A 62 NHS Salford CCG (by dose) self-referral minor A&E attendance per month per 1,000 registered patients

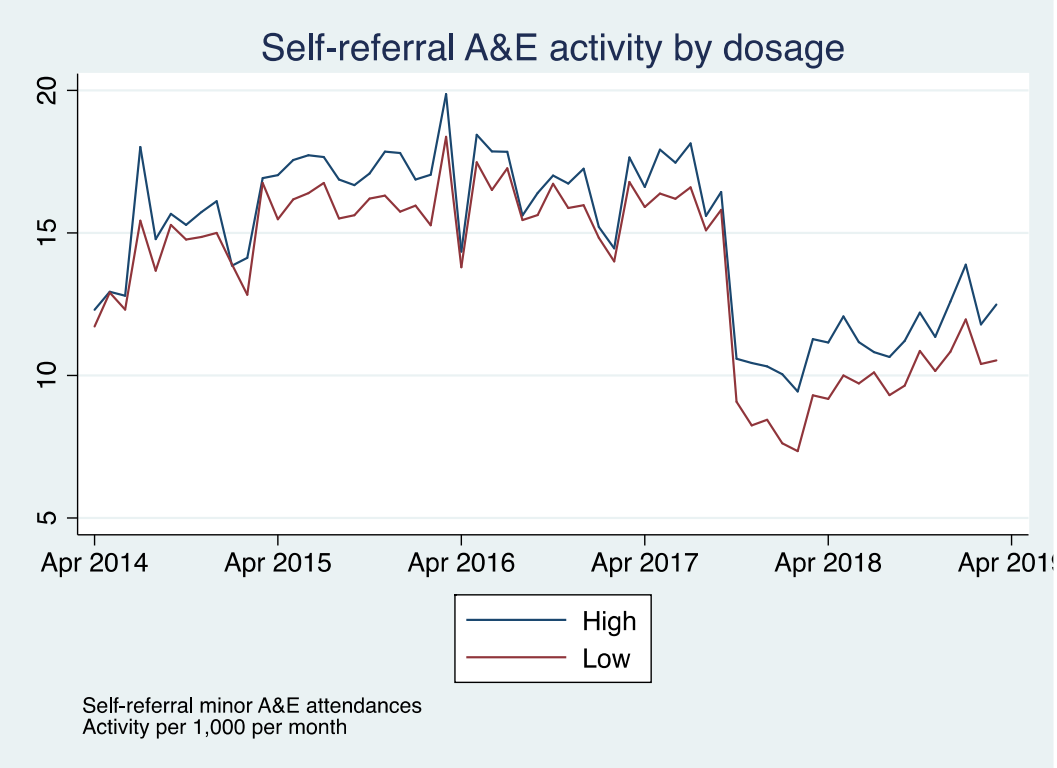


Figure A 63 NHS Salford CCG (by dose) self-referral minor A&E attendance cost per month per 1,000 registered patients

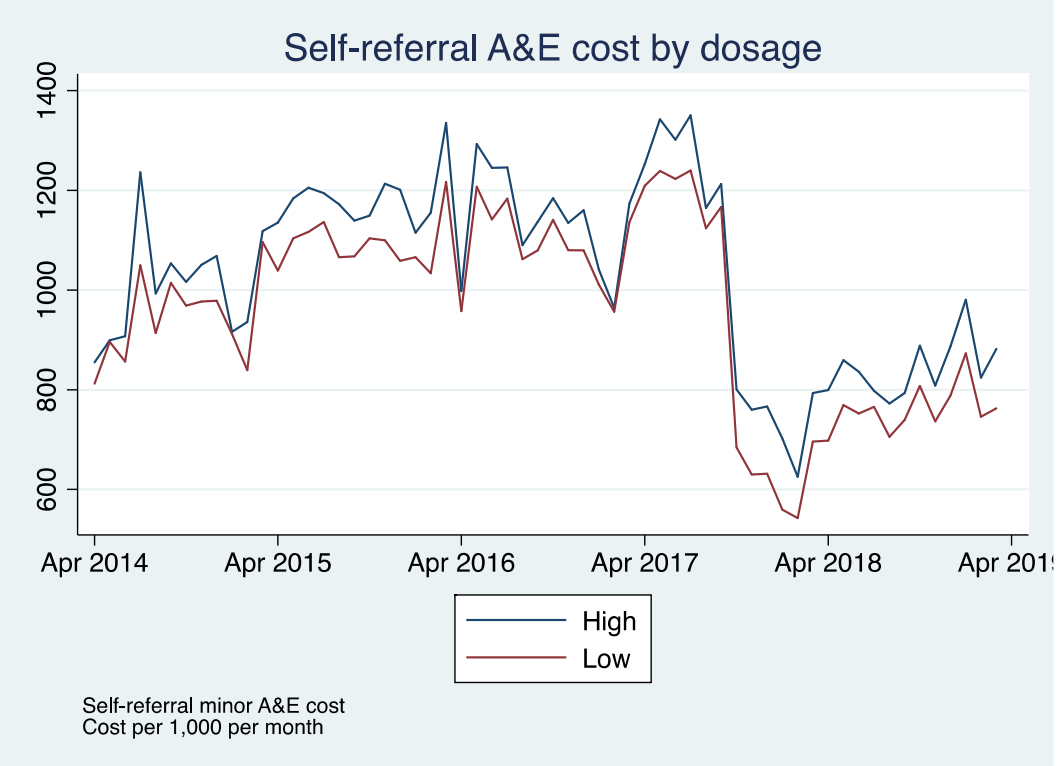


Figure A 64 Neighbourhood self-referral minor A&E attendance per month per 1,000 registered patients

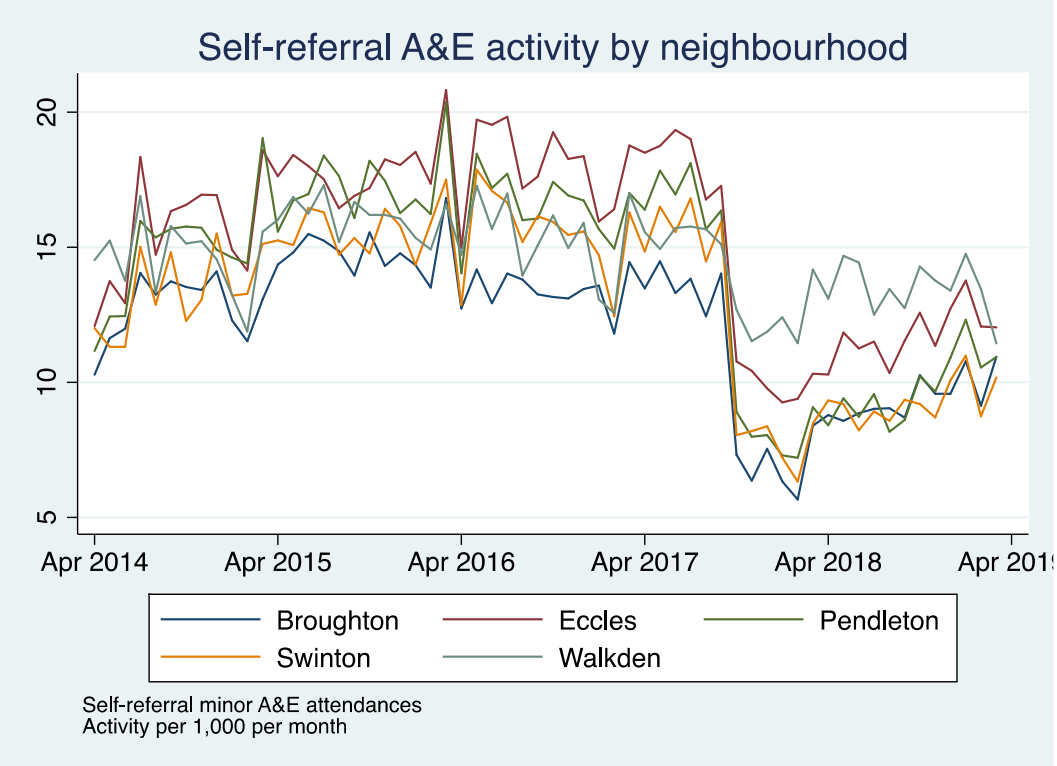
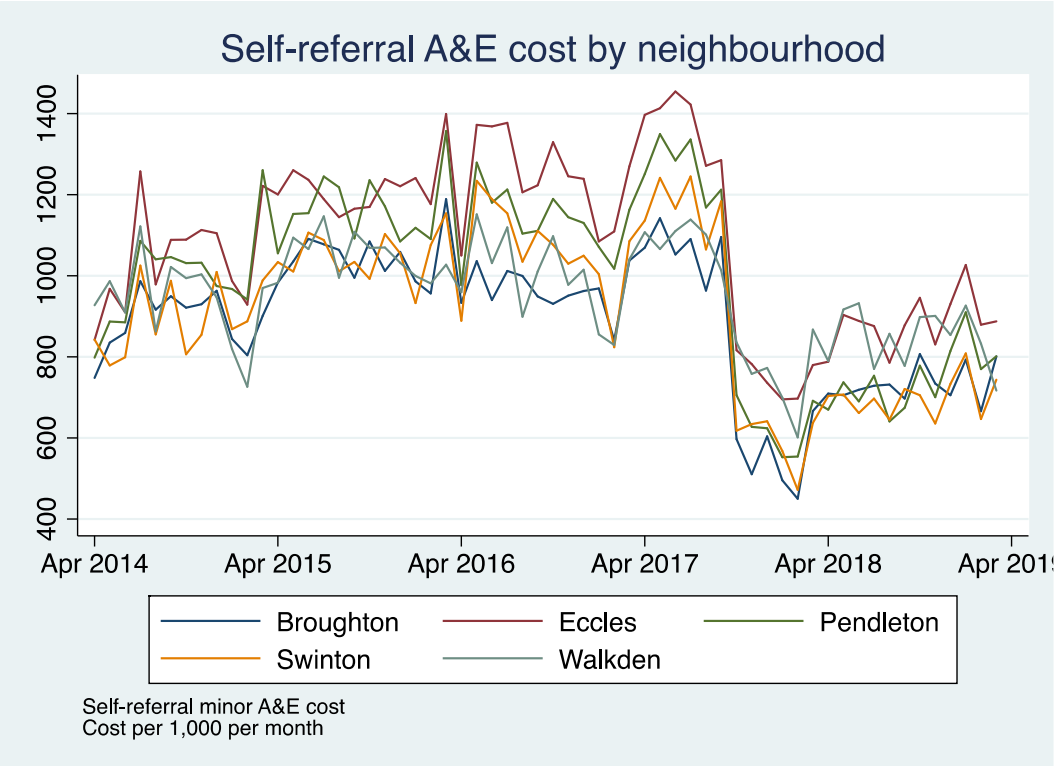


Figure A 65 Neighbourhood self-referral minor A&E attendance cost per month per 1,000 registered patients



Estimates of the change in self-referral A&E attendance are plotted in Figure A 66 and presented in Table A 29. All neighbourhoods (and dose groups and NHS Salford CCG) aside from Walkden experienced significant reductions in self-referral minor attendances at A&E in the SWEAP period. All neighbourhoods, dose groups, and NHS Salford CCG as a whole experienced significant reductions in self-referral minor A&E costs in the SWEAP period (Figure A 67/Table A 29)

Figure A 66 Estimated change in self-referral minor A&E attendance per month per 1,000 registered patients

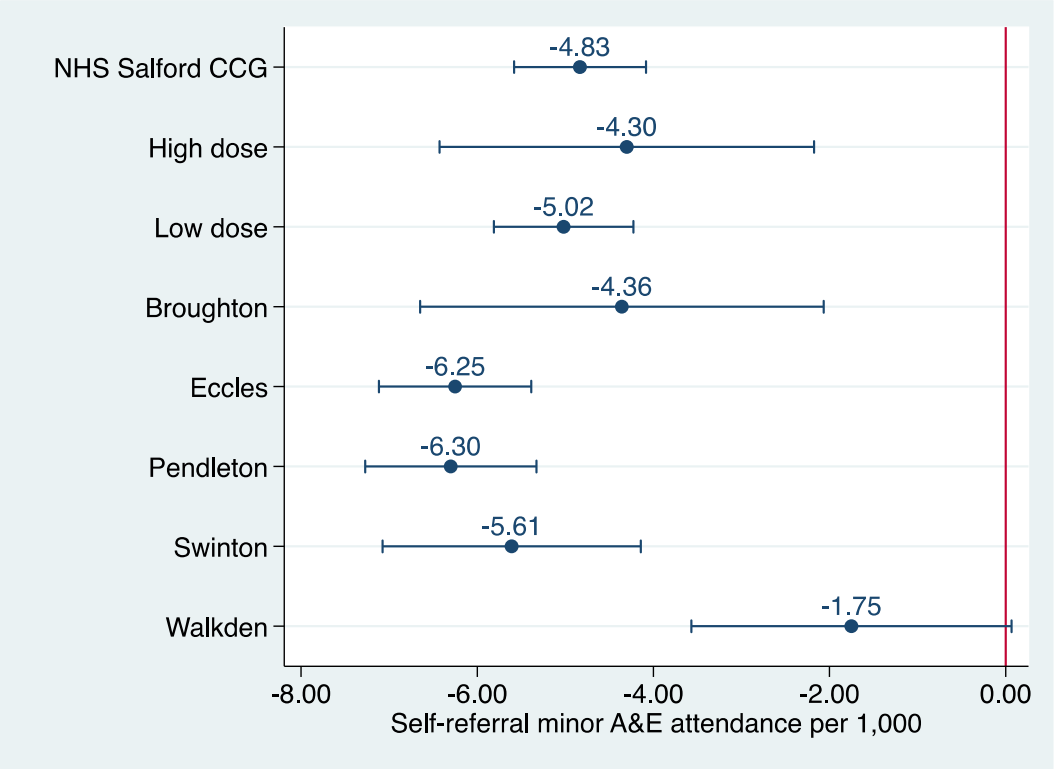


Figure A 67 Estimated change in self-referral minor A&E attendance cost per month per 1,000 registered patients

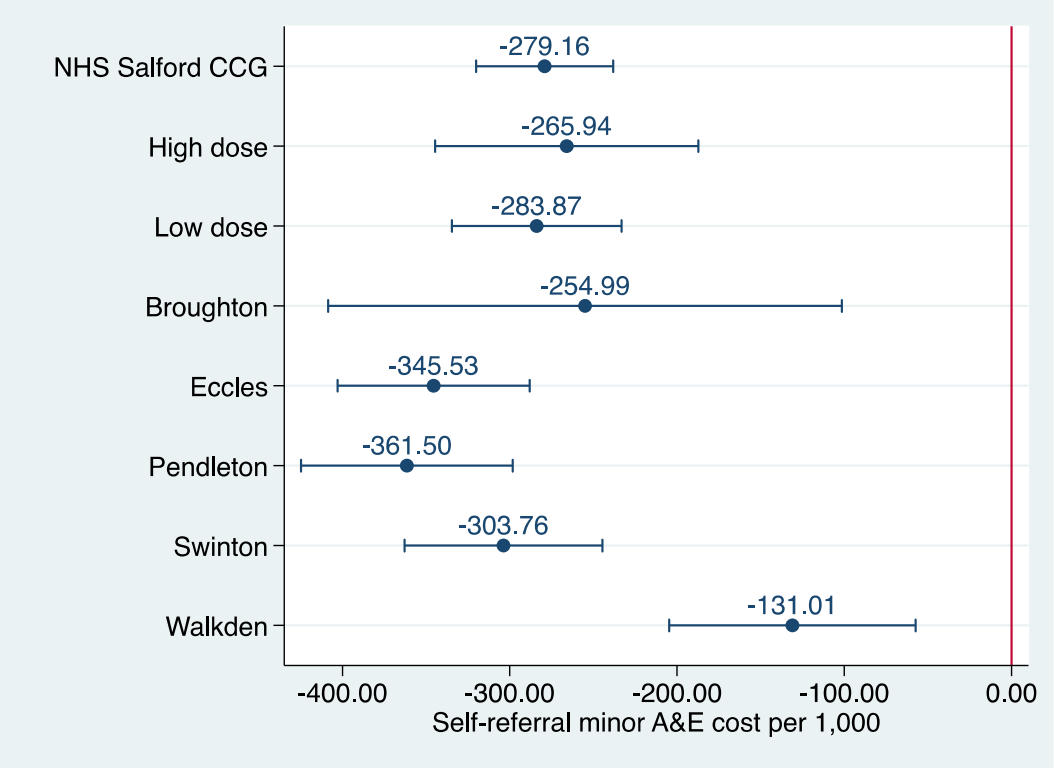


Table A 29 Estimated change in self-referral minor A&E attendance per month per 1,000 registered patients

	Self-referral minor A&E attendances per 1,000	Self-referral minor A&E cost per 1,000 (£)
NHS Salford CCG (n=2,698)	**-4.83 (p<0.001)**	**-279.16 (p<0.001)**
Dose		
High dose (n=660)	**-4.30 (p=0.001)**	**-265.94 (p<0.001)**
Low dose (n=2,038)	**-5.02 (p<0.001)**	**-283.87 (p<0.001)**
Neighbourhood		
Broughton (n=538)	**-4.36 (p=0.002)**	**-254.99 (p=0.005)**
Eccles (n=720)	**-6.25 (p<0.001)**	**-345.53 (p<0.001)**
Pendleton (n=600)	**-6.30 (p<0.001)**	**-361.50 (p<0.001)**
Swinton (n=240)	**-5.61 (p=0.001)**	**-303.76 (p<0.001)**
Walkden (n=600)	-1.75 (p=0.057)	**-131.01 (p=0.003)**

Estimates from separate linear regressions (Ordinary Least Squares) of volume or cost of self-referral minor A&E attendances against month dummy variables and a SWEAP active identifier. Neighbourhood dummies included in NHS Salford CCG regression. Robust standard errors are clustered at practice level.
Estimates with a p-value less than 0.05 are deemed significant at conventional levels of statistical significance.

NHS 111 contacts

NHS Salford CCG provided NHS 111 activity data. The data covered monthly practice-level activity for the period April 2014 to June 2019. Data were stratified by outcome of the contact. The potential outcomes included:

1. Ambulance dispatched
2. Not recommended to attend other service
3. Recommend to attend A&E
4. Recommend to attend other service
5. Recommend to attend primary and community care

We sought to assess whether the introduction of the SWEAP service was associated with changes in NHS 111 activity. There are contacts with NHS 111 that are unlikely to be influenced by the provision of SWEAP, namely those resulting in urgent emergency care '(Ambulance dispatched' or 'Recommend to attend A&E'). We therefore conduct two sets of analysis: i) Total NHS 111 contacts and ii) NHS 111 contacts with a non-emergency recommendation (2, 4, and 5 above).

45 practices were modelled (a practice in Pendleton had no reported NHS 111 activity after January 2018 and was excluded since practices need to be present in both pre- and post-SWEAP periods, this gave a total of 2,835 practice-month observations (63 months for each of the 45 practices).

Activity over each financial year are presented in Table A 30. There are roughly 50,000 NHS 111 contacts per financial year, this appears to have fallen slightly since 2016/17 (primarily due to falls in non-emergency contacts). Approximately three quarters of all NHS 111 contacts result in a non-emergency recommendation.

Table A 30 NHS 111 contacts by financial year

Financial year	Total contacts	Emergency contacts (% total)	Non-emergency contacts	List size**
2014/15	46,397	9,707 (20.92%)	36,690 (79.08%)	248,005
2015/16	50,119	11,111 (22.17%)	39,008 (77.83%)	254,105
2016/17	50,320	11,756 (23.36%)	38,564 (76.64%)	261,184
2017/18	48,365	11,898 (24.60%)	36,467 (75.40%)	267,283
2018/19	46,697	11,829 (25.33%)	34,868 (74.67%)	272,631
2019/20*	12,664	3,286 (25.95%)	9,378 (74.05%)	278,949
Total	254,564	59,587 (23.41%)	194,975 (76.59%)	

**2019/20 period covers April to June 2019*

***Registered patients as at April of the financial year*

As the volume of contacts may be reflective of population coverage (a larger population may be expected to have a larger volume of contacts), we present activity per 1,000 registered patients. With approximately 50,000 contacts and 250,000

patients this gives 200 contacts per 1,000 per year ((50,000/250,000)*1,000=200) and roughly 16.7 contacts per 1,000 per month (200/12=16.67).

Figure A 68 plots monthly NHS 111 total contacts over the period. Figures A 69 and A 70 plot monthly NHS 111 total contacts by dose group and neighbourhood.

Figure A 68 NHS Salford CCG NHS 111 contacts per month per 1,000 registered patients

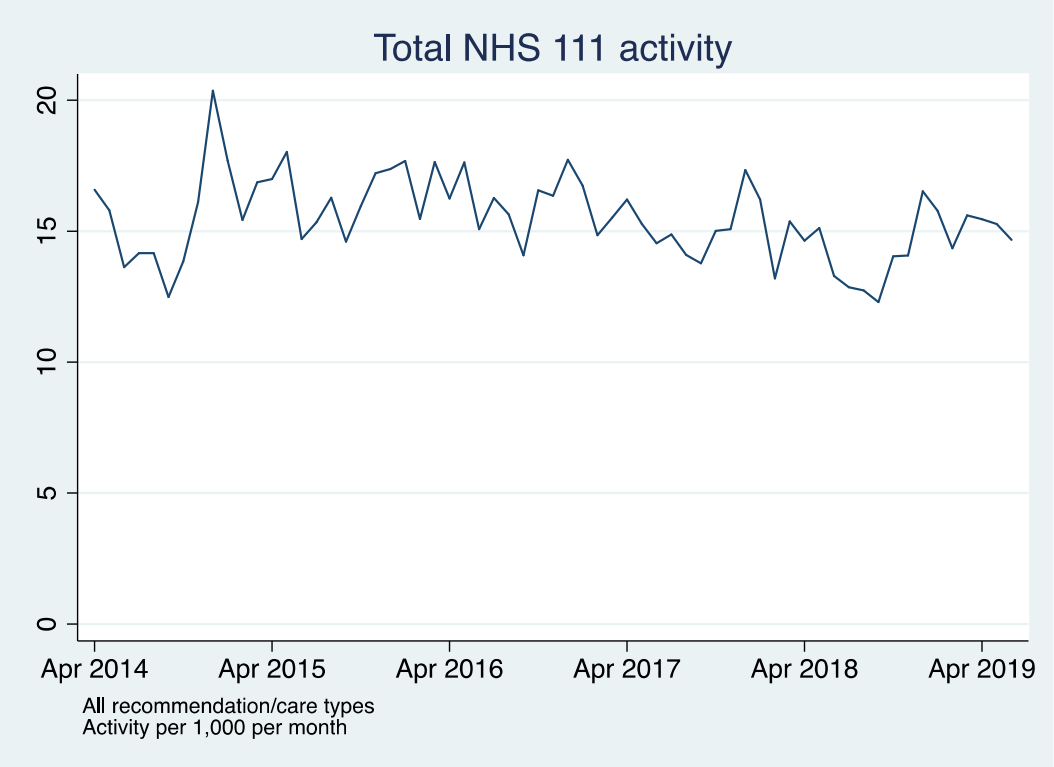


Figure A 69 NHS Salford CCG (by dose) NHS 111 contacts per month per 1,000 registered patients

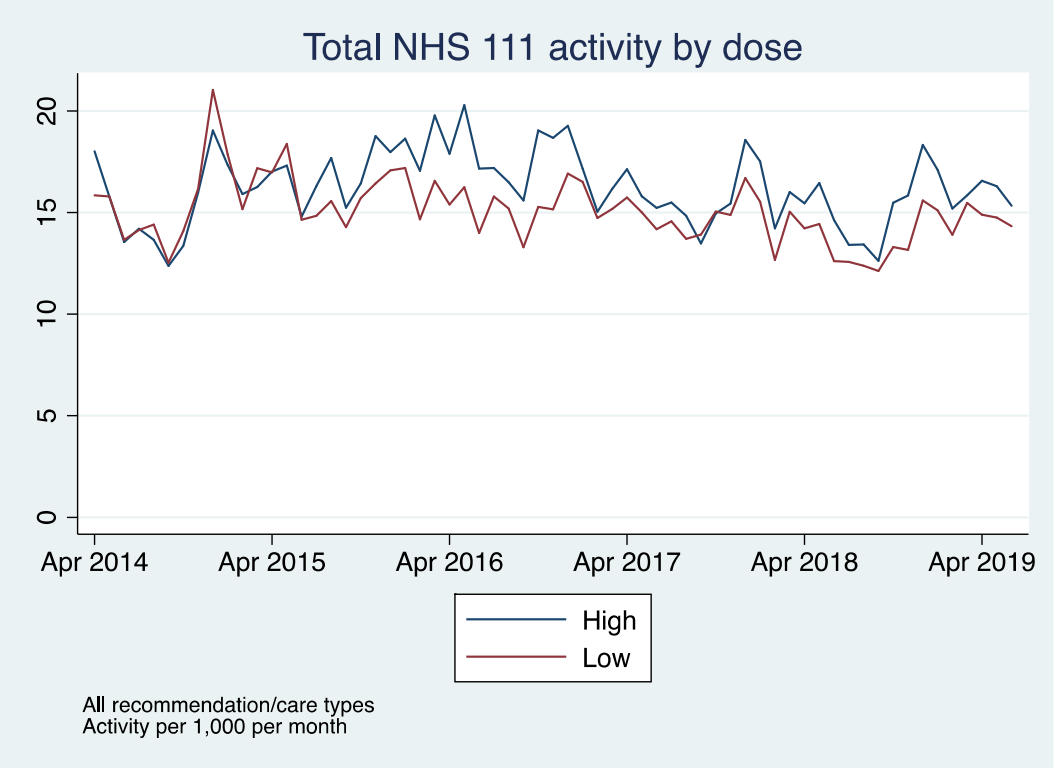
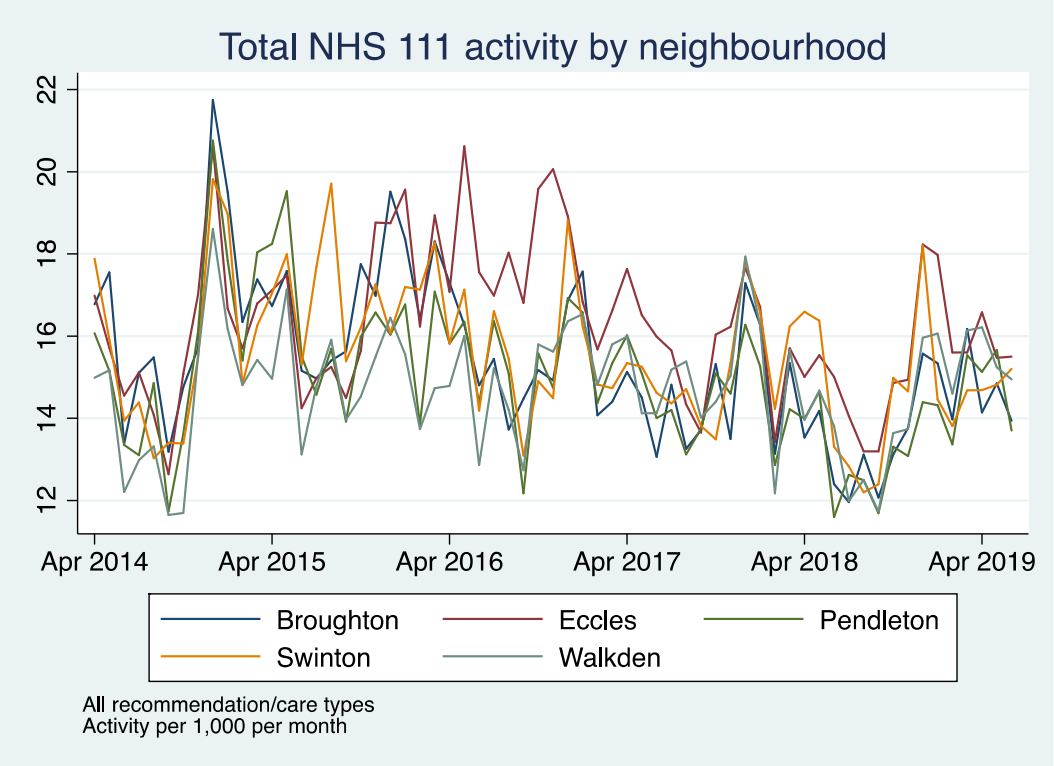


Figure A 70 Neighbourhood NHS 111 contacts per month per 1,000 registered patients



Figures A 71, A 72 and A 73 plot monthly NHS 111 contacts with a recommendation for non-emergency care per 1,000 for NHS Salford CCG, dose group, and by neighbourhood respectively.

Figure A 71 NHS Salford CCG non-emergency NHS 111 contacts per month per 1,000 registered patients

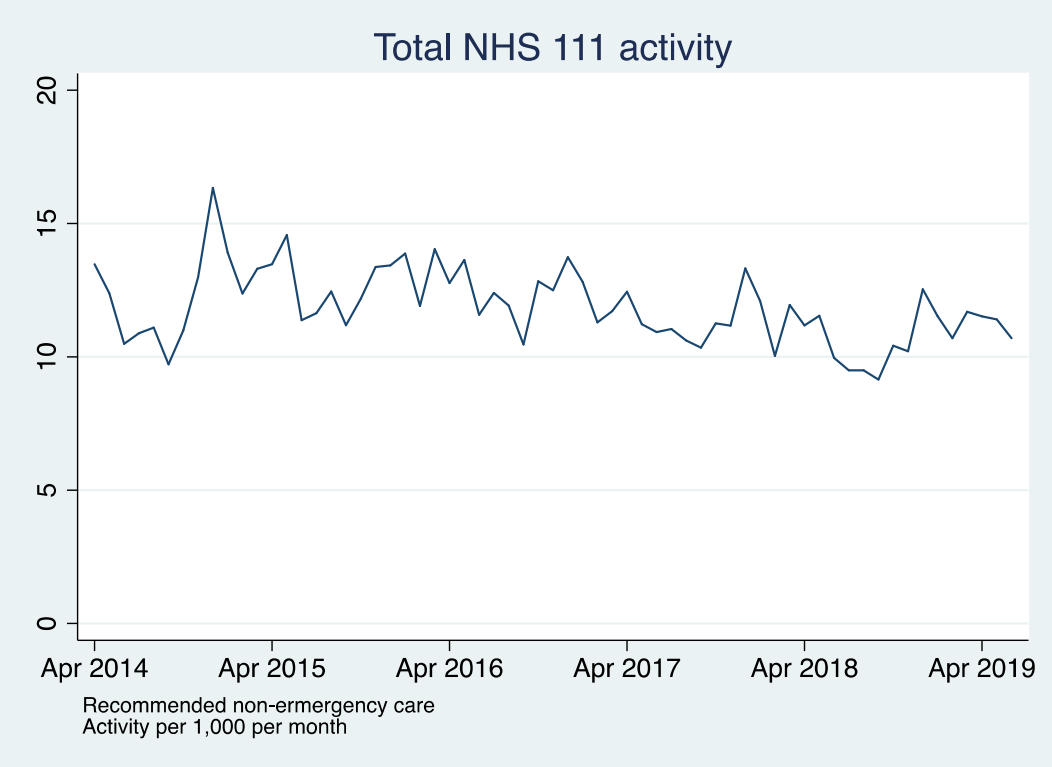


Figure A 72 NHS Salford CCG (by dose) non-emergency NHS 111 contacts per month per 1,000 registered patients

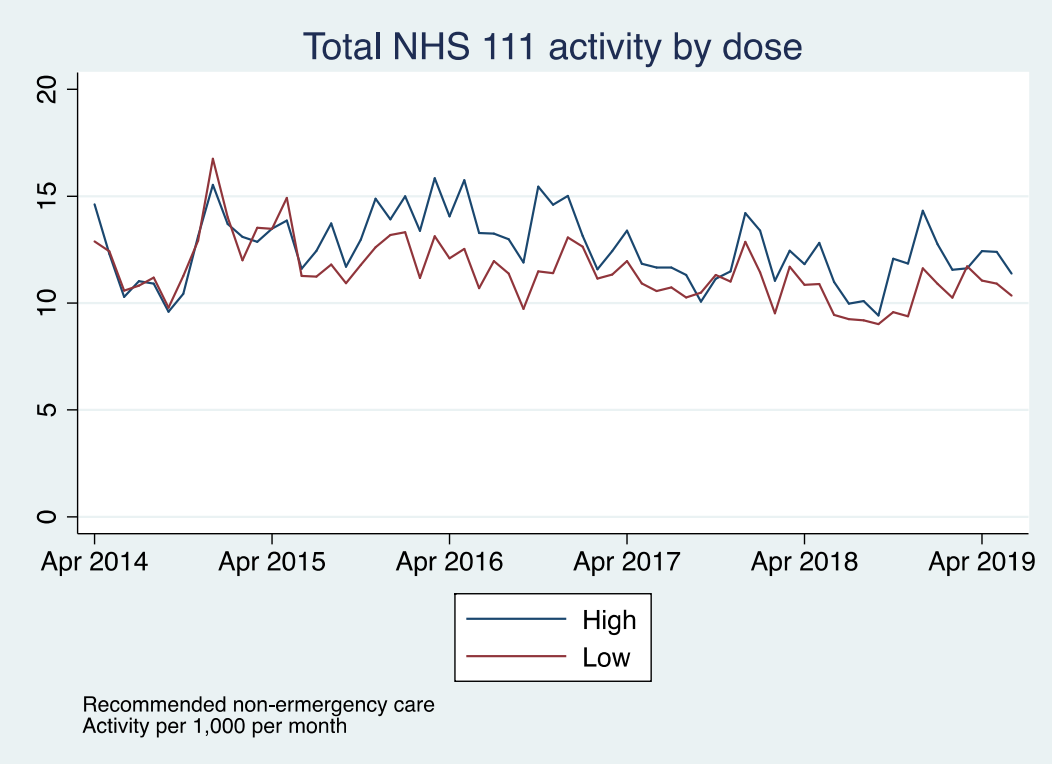
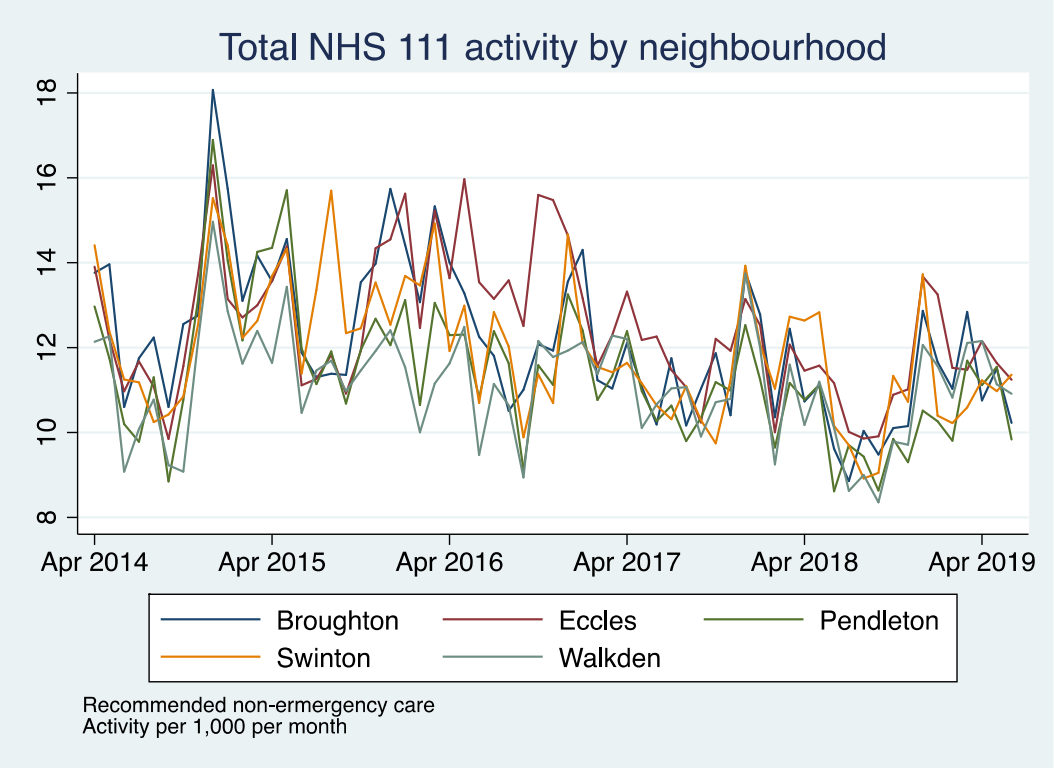


Figure A 73 Neighbourhood non-emergency NHS 111 contacts per month per 1,000 registered patients



In a linear regression of NHS 111 contacts we found on average 1.4 fewer NHS 111 contacts per month per 1,000 in the SWEAP period (this difference was statistically significant, p<0.001). A similar 1.5 fewer NHS 111 contacts per month were found for NHS 111 contacts with a recommendation for non-emergency care (p=0.001). Estimates are provided in Table A 31 and Figures A 74 and A 75. Dose group estimates find a significant reduction for the low dose group in total NHS 111 contacts but not high dose. Both groups had a reduction in contacts with a recommendation for non-emergency care. Neighbourhood estimates reveal that the reduction in both measures of NHS 111 contacts is concentrated among three neighbourhoods (Broughton, Eccles, and Pendleton). Walkden experienced no significant change in total NHS 111 contacts but a significantly lower number of contacts with a recommendation for non-emergency care.

Figure A 74 Estimated change in NHS 111 contacts per month per 1,000 registered patients

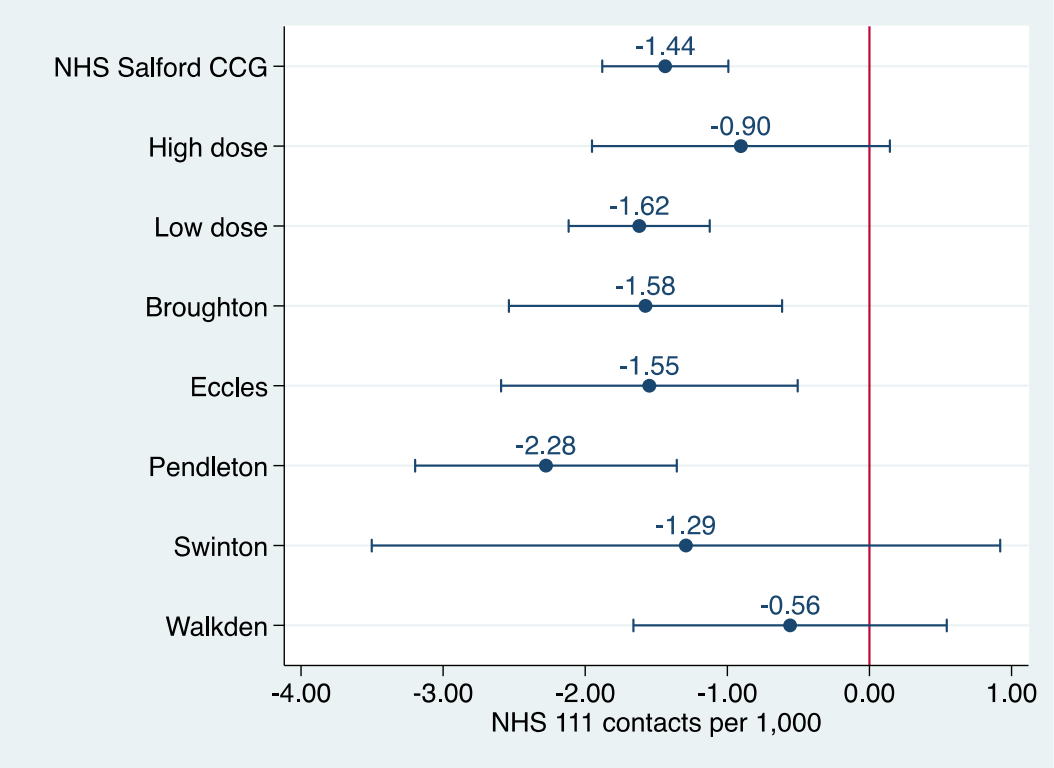


Figure A 75 Estimated change in non-emergency NHS 111 contacts per month per 1,000 registered patients

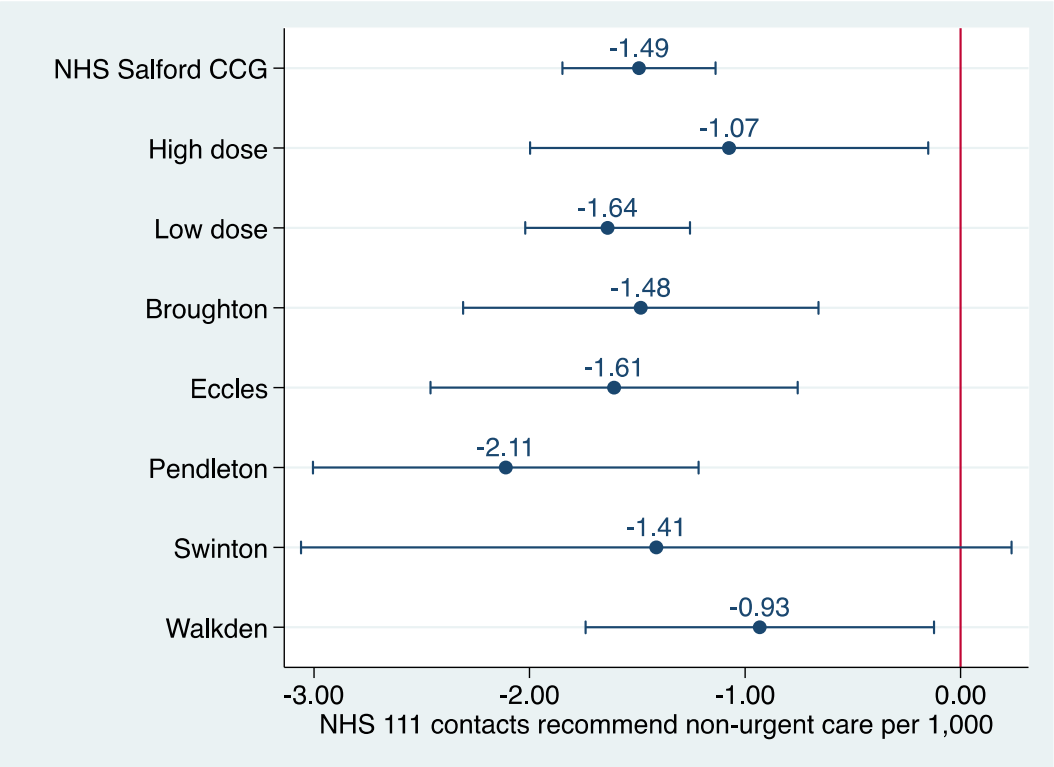


Table A 31 Estimated change in NHS 111 contacts per month per 1,000 registered patients

	Total NHS 111 contacts	NHS 111 contacts with recommendation for non-emergency care
NHS Salford CCG (n=2,835)	**-1.44 (p<0.001)**	**-1.49 (p<0.001)**
Dose		
High dose (n=693)	-0.90 (p=0.083)	**-1.07 (p=0.027)**
Low dose (n=2,142)	**-1.62 (p<0.001)**	**-1.64 (p<0.001)**
Neighbourhood		
Broughton (n=567)	**-1.58 (p=0.005)**	**-1.48 (p=0.003)**
Eccles (n=756)	**-1.55 (p=0.008)**	**-1.61 (p=0.002)**
Pendleton (n=630)	**-2.28 (p<0.001)**	**-2.11 (p<0.001)**
Swinton (n=252)	-1.29 (p=0.160)	-1.41 (p=0.072)
Walkden (n=630)	-0.56 (p=0.281)	**-0.93 (p=0.028)**

Estimates from separate linear regressions (Ordinary Least Squares) of volume of contacts against month dummy variables and a SWEAP active identifier. Neighbourhood dummies included in NHS Salford CCG regression. Robust standard errors are clustered at practice level.
Estimates with a p-value less than 0.05 are deemed significant at conventional levels of statistical significance.

OOH contacts

NHS Salford CCG provided OOH activity data. The data covered monthly provider group (broadly practice-level) activity for the period April 2014 to July 2019. Total contacts were provided only (no further detail relating to the content or outcomes of contacts were available).

We sought to assess whether the introduction of the SWEAP service was associated with changes in OOH activity. 42 practices were modelled over 64 months (assignment to practice code and patient list size was not possible for 3 practices in the data). Activity over each financial year are presented in Table A 32. There are roughly 25,000 contacts per financial year, this appears to have fallen slightly since 2017/18. As the volume of contacts may be reflective of population coverage (a larger population may be expected to have a larger volume of contacts), we present activity per 1,000 registered patients. Approximately 100 OOH contacts per 1,000 registered patients are made each financial year. Figure A 76 plots monthly OOH contacts over the period. Figure A 77 plots monthly OOH contacts by dose group. Figure A 78 plots monthly OOH contacts by neighbourhood.

Table A 32 OOH contacts by financial year

Financial year	Total contacts	List size**	Contacts per year per 1000 patients*
2014/15	25,812	237,100	109
2015/16	23,444	243,217	96
2016/17	26,291	251,611	104
2017/18	25,958	257,000	101
2018/19	23,875	261,890	91
2019/20*	11,278	267,823	42
Total	136,658		

**2019/20 period covers April to July 2019*

***Registered patients as at April of the financial year*

Figure A 76 NHS Salford CCG OOH contacts per month per 1,000 registered patients

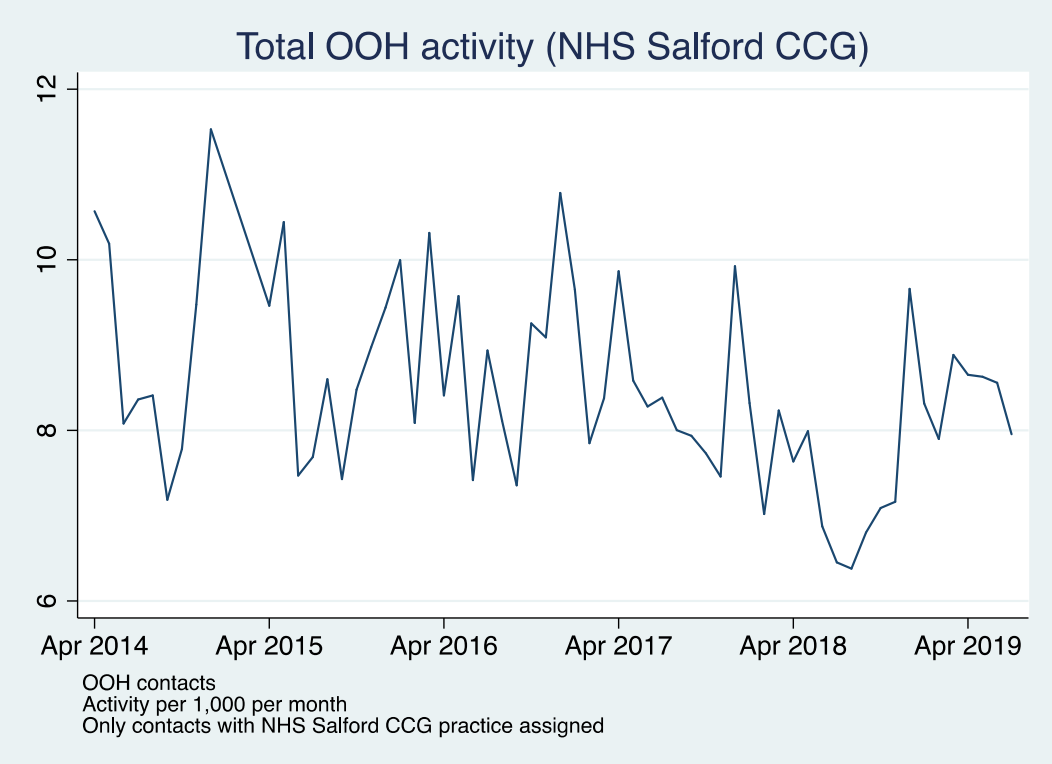


Figure A 77 NHS Salford CCG (by dose) OOH contacts per month per 1,000 registered patients

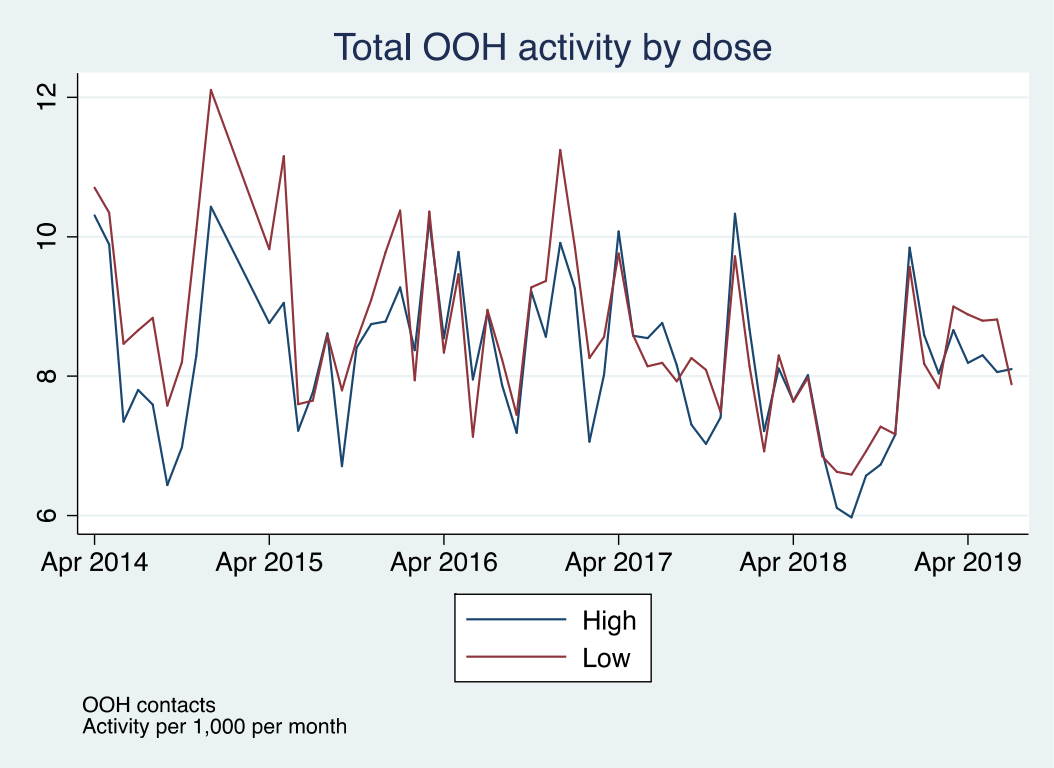
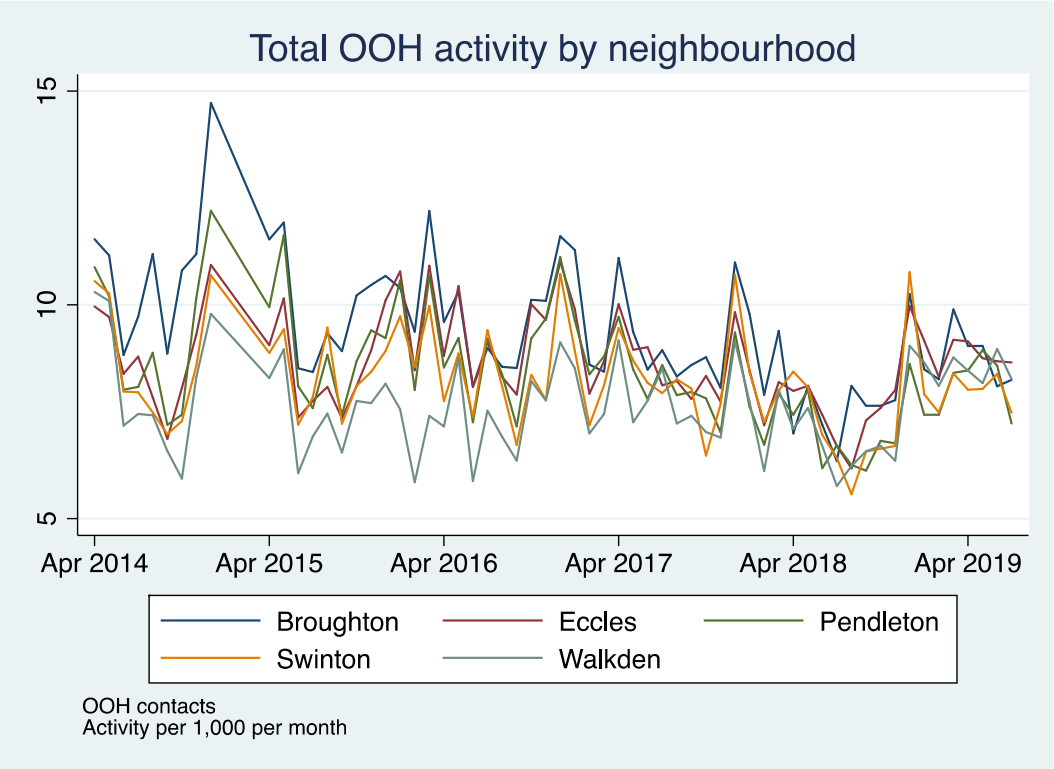


Figure A 78 Neighbourhood NHS 111 contacts per month per 1,000 registered patients



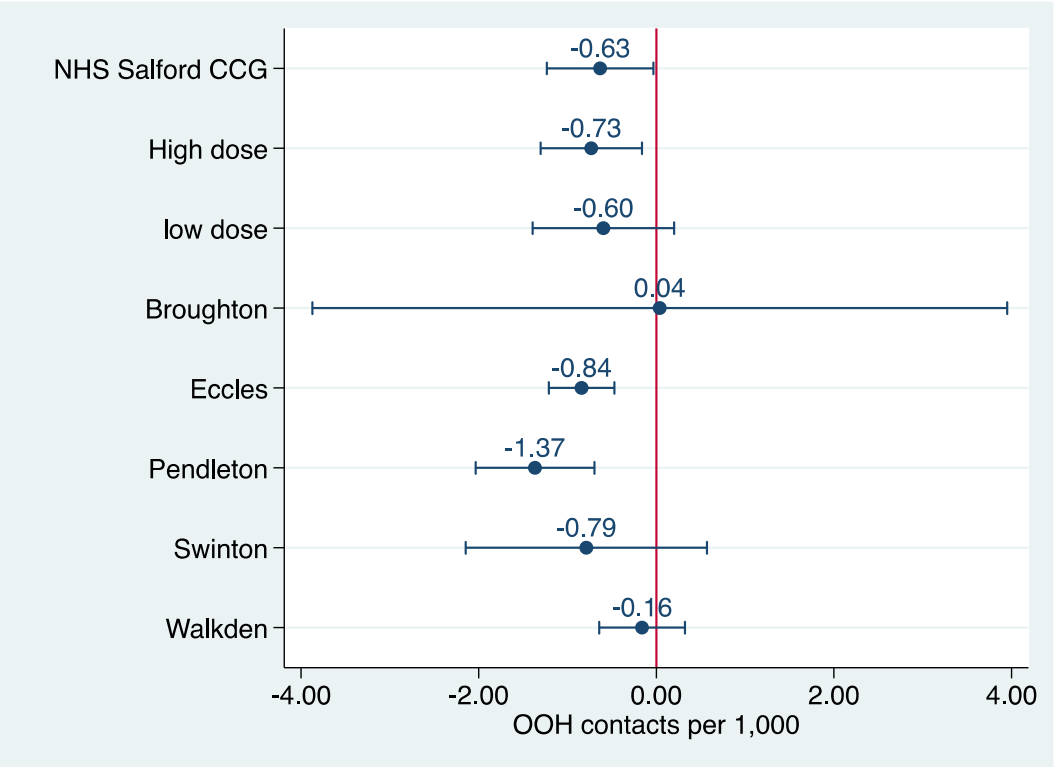
In a linear regression of OOH contacts we found on average 0.63 fewer OOH contacts per month per 1,000 patients in the SWEAP period (this difference was statistically significant, p=0.039). Estimates by dose group find a significant reduction for the high dose group only. Neighbourhood estimates reveal that the reduction is concentrated among two neighbourhoods (Eccles and Pendleton). Table A 33 and Figure A 79 provide the estimated change in OOH over the SWEAP period.

Table A 33 Estimated change in OOH contacts per month per 1,000 registered patients

	Total OOH contacts per 1,000
NHS Salford CCG (n=2,654)	**-0.63 (p=0.039)**
Dose	
High dose (n=640)	**-0.73 (p=0.018)**
Low dose (n=2,014)	-0.60 (p=0.137)
Neighbourhood	
Broughton (n=512)	0.04 (p=0.982)
Eccles (n=640)	**-0.84 (p=0.001)**
Pendleton (n=640)	**-1.37 (p=0.001)**
Swinton (n=256)	-0.79 (p=0.162)
Walkden (n=606)	-0.16 (p=0.471)

Estimates from separate linear regressions (Ordinary Least Squares) of volume of contacts against month dummy variables and a SWEAP active identifier. Neighbourhood dummies included in NHS Salford CCG regression. Robust standard errors are clustered at practice level.
Estimates with a p-value less than 0.05 are deemed significant at conventional levels of statistical significance.

Figure A 79 Estimated change in OOH contacts per month per 1,000 registered patients



Discussion

The analyses of impacts on service use found reductions in minor A&E attendances and cost and self-referral minor A&E attendance and cost in the SWEAP period. There was little evidence of reductions in self-referrals or total A&E attendance but significant increases in cost of these attendances. These suggest the changes are being driven by reductions in minor A&E attendance. This seems plausible given the large proportion of patients using SWEAP appointments for minor problems (Section 7).

Reductions in average monthly NHS 111 contacts in NHS Salford CCG were found in the SWEAP period, these were concentrated among Broughton, Eccles, and Pendleton (largest drop). Similar effects were found for contacts with a non-urgent care recommendation, Walkden also experienced a reduction in non-urgent care contacts. Swinton appears to have experienced no significant change in either measure of NHS 111 contacts.

Reductions in average monthly OOH contacts per 1,000 in NHS Salford CCG were also found, these were concentrated among Eccles and Pendleton (largest drop) neighbourhoods with no significant change observed in Broughton, Swinton, or Walkden.

For all A&E attendance and NHS 111 measures the high dose practices (those with more than 100 appointments booked per 1,000 registered patients), the estimated change is smaller than that seen in the low dose practices. Given the dosage grouping reflects a measure of SWEAP it seems plausible to expect higher impacts for high dose practices, that we find the opposite casts doubt over whether the analyses is really identifying the effects of SWEAP or other factors. For OOH there is some evidence that high dose practices had a reduction in OOH contacts and no change for low dose practices.

The findings here are also unreflective of provision seen in Section 4. There, Pendleton had the smallest amount of attendance per 1,000 residents yet here we see significant reductions in all impact measures for this neighbourhood.

Strengths and limitations

Survey responses in Section 6 suggested some patients accessing the SWEAP service may have sought care elsewhere such as A&E, NHS 111, or online. This suggests reductions in this type of service use would be plausible. However, caution is needed due to the inability to obtain a comparison group of practices that would net out any trend effects. This is particularly a problem for measures such as A&E costs that appeared to trend prior to SWEAP introduction. Having a comparator group would also enable the effects of other initiatives to be removed from the estimated effect of SWEAP. At present any initiatives occurring either before or after SWEAP activation could bias the estimated effects. This is a likely possibility due to the presence of a GP streaming service (September 2017 to November 2018) and urgent care models in various forms to April 2019.

For more information, please contact Susan Howard (susan.howard@healthinnovationmanchester.com)
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