

St Leonard's Research Practice Continuity Counts Project Final Report, June 2021

Denis Pereira Gray OBE HonDSc FRCP FRCGP FMedSci, Philip Evans MPhil FRCGP,
Kate Sidaway-Lee PhD

Executive summary

The Continuity Counts project took place between February 2019 and June 2021. We used a whole system, inclusive approach to improve GP continuity. The Continuity Counts team, based in St Leonard's Practice in Exeter implemented a three-point programme aiming to improve GP continuity in five Devon general practices: three city practices, one seaside, and one rural.

Approach and local impact

1. *Measuring continuity of GP care.*

GP continuity was measured by the St Leonard's Index of Continuity of Care (SLICC; Sidaway-Lee *et al*, 2019) and the Own Patient Ratio (OPR), in all five practices. The SLICC is the only inclusive measure of GP continuity as it uses every consultation by every patient with every GP and does not, like other measures, exclude many patients and consultations. It is patient-centred, capturing patients' experience in real world general practice. Staff in each practice were shown how to use our templates to provide monthly analyses

Practices faced major, separate pressures against continuity of care: a big fall in GP continuity nationally (Tammes *et al*, 2021) and the biggest dislocation of general practice for 200 years, through the pandemic. Despite all this, four practices increased GP continuity significantly on the OPR for face-to-face consultations and one practice increased continuity on the face-to-face and telephone SLICC. One practice made no progress on continuity due to a different priority on improving access.

We initially suspected that measuring continuity was necessary if it is to be understood and implemented in practices and we found that this was true, supporting the maxim that: "You can't manage it if you don't measure it."

2. *Seminars.*

We ran seminars for GPs, patients and administrative staff in each practice. We provided 38 seminars, 21 of which were with GPs. The seminars were initially held in each practice so colleagues were comfortable and could talk openly on home ground. We used interactive small group techniques and summarised the latest research on continuity, provided an up-

to-date analysis of each practice's own's continuity (SLICC and OPR scores) and discussion time with a summary. The 90-minute duration for GP seminars allowed all GPs time to comment freely. The GPs evaluated each workshop and a written report was prepared each time.

The sudden arrival of the Covid-19 pandemic forced practices in March 2020 to provide almost all consultations remotely. Our office closed and all three of us started working from home. We lost face-to-face contact and had to provide our seminars by Zoom. We prioritised GP workshops because the Health Foundation's objective was to improve GP continuity and as GPs are the policymakers in practices with the greatest influence on practice organisation.

At these seminars we shared key research on the positive associations with continuity of doctor care which had strengthened during the course of the project. With greater patient satisfaction, greater patient adherence to medical advice, medication and personal preventive care, higher quality of GP care, significantly fewer attendances at accident and emergency departments, fewer hospital admissions and lower costs in the health system, the case for fostering GP continuity is great. Baker *et al.*, (2020) in a systematic review showed that the reduction in mortality, which we had previously reported for all doctors (Pereira Gray *et al.*, 2018) applies in primary care. We have heard six myths (beliefs without a research basis) stated, so we have disseminated the relevant research.

3. Patient evaluations of GP consultations.

We sought to capture the patients' views of the quality of their most recent GP consultation using a validated questionnaire derived from research and offered to patients immediately after their consultation. Generalist doctors need to unravel the full meaning of the patient's symptoms and to understand the context in which they arise i.e. understanding the patient as a person (McWhinney, 1993) so patients feel heard and understood and can share decisions. Our combined instrument derived from two validated questionnaires from Reis *et al.*, (2008) and Barr *et al* (2014; CollaboRATE), seeking 50 patients responding for each GP, achieving 1122 in total. In response to a question on whether patients had a regular doctor, the four practices showed a range, with 79% to 91% of patients replying positively- a continuity question. Key questions include. "My doctor really listens", "My doctor shows compassion to me", and "My doctor understands me". Patients rated GP consultations highly with one GP having patients awarding a mean of 4.9 out of 5 on several questions

We also arranged meetings of an advisory committee which brought together the continuity champions (GPs, patients and administrative staff) from all the practices. These were extremely well attended.

Key Learning

The personal list system ensures that every patient, including children, is given an accountable GP, that patients are clear about who their GP is and the staff in the practice try consistently to link patients with their accountable GP as far as possible. Although described over 40 years ago (Pereira Gray, 1979), this is a minority system in British general practice. The NHS contract requires GPs to inform each registered patient, who is their accountable

GP with clinical responsibility for their physical and mental health. Personal lists are the simplest way to meet this contractual requirement.

We found personal lists were the single most important factor determining whether GP continuity of care, as measured by the SLICC, occurred. We defined high GP continuity as all patients having a 50% or greater chance of a consultation with their accountable GP whenever they attend. This was observed only in personal list practices. The five practices we know with the highest levels of measured GP continuity all use personal lists. GPs using personal lists described them as being “efficient” within the practice by clarifying clinical responsibility, simplifying the flow of information, and building better relationships between patients and their doctors. They protected GPs from excess consultations by patients on other GPs’ lists and provisionally, personal list practices seemed to cope better with workload pressures, fitting research that GPs gain professional satisfaction with continuity (Ridd *et al.*, 2006).

We could not show that increased GP continuity was associated with lower annual consultation rates by patients as implied by Howie *et al.*'s finding (1999) that GPs can “enable” many patients (build up the patient’s confidence and support more self-care), but we suspect that it does. However, patients reported that *eConsults* “disempowered” them, potentially counteracting enablement benefits associated with GP continuity.

Some GPs undervalue themselves by not fully appreciating the added value they can bring to their patients through good patient-GP relationships, built by continuity of care. General practice is quietly dividing into two groups of practices, the majority using the pooled list system and accepting low levels of GP continuity and a minority of practices providing good GP continuity (SLICC \geq 50%; OPRs \geq 75%), usually through personal lists.

Outputs

We used the experiences and insights we were gaining during the programme to inform our research and writing and have had five articles on some aspect of GP continuity published in the *BMJ* and the *British Journal of General Practice*. Two of these articles were on measuring continuity with the SLICC and on its mechanisms including a figure on the adverse effects of continuity (Sidaway-Lee *et al.*, 2019, 2021).

We have produced patient leaflets and a website (both available at: www.continuitycounts.com) which highlight the evidence of patient and GP benefits associated with continuity. We have also produced a continuity measurement toolkit which other practices will be able to use to measure continuity as piloted during the programme.

We collaborated with the Health Foundation, the Royal College of General Practitioners, with the other sites in the programme and with other practices. Through the programme, we have formed links with several practices which are interested in continuity and we hope to sustain and build on these links to influence general practice more widely.

We recommend that NHS England and NHS Improvement prioritise GP continuity as has been done for midwifery continuity in the *NHS Long Term Plan* and mandate clinical system suppliers to provide software making GP continuity measurements accessible in NHS

general practices. We also recommend that the Health Foundation continues to advise the DHSC about the research base for continuity, the lessons learned in this programme and how best to provide it.

We recommend that the RCGP disseminates evidence of the benefits associated with GP continuity and evidence-based methods for achieving it, by measuring it and the personal list system and funds continuity champions, regionally across the UK. We would like to see the NIHR funding research on continuity leading to a randomised trial of the benefits. Finally, we recommend that Health Education England prioritises the teaching of GP trainees about research on continuity of GP care and the pros and cons of personal and pooled lists.

Project Journey

Methodology and timelines

This project was a health improvement project using educational methods. The overarching intention was to improve continuity of care in five general practices in Devon. The key method for achieving this was to educate GPs, practice staff and patients about continuity of care including the benefits and how it can be measured in practice and hence improve continuity of care. The total patient population at the start of the project was 41,129 with 33 individual GPs. Three practices were located in Exeter, with one covering rural areas, one rural practice in the middle of Devon and one practice in the seaside town of Exmouth.

Table 1 Practice characteristics at the start of the project

Patient population size	Location	Number of Partners	Number of other GPs with lists
11,243	Seaside town	6	3
9297	City centre	5	3
7949	City suburb/rural	2	4
6922	Rural	4	2
5718	City suburb	3	1

Set Up

The first strand of the project was to measure continuity of care in all the practices. The package we rolled out to the practices used our two measures, both based on a personal list or named accountable GP system. The first, the St Leonard's Index of Continuity of Care (SLICC) is the percentage of patient appointments for a GP's list that are with the list-holding GP. The second, the Own Patient Ratio (OPR) is the percentage of GP consultations that are with the GP's own list patients.

After formal data-sharing agreements were signed with the five practices, continuity measurement had been set up and was ongoing in all practices from June 2019. This continued, with a few minor interruptions, in all practices up to the end of the project. The methods for extracting data and determining consultation type are in Appendix 1.

During this set-up phase, we asked each practice to nominate a GP, an administrative team member and a patient representative to be the continuity champions for the practice. Our first Advisory Committee meeting held at St Leonard's Practice in October 2019 was attended by a patient, admin staff and GP representative from each of the five practices. At this meeting, we presented a graph showing the range of continuity scores for the 33 participating GPs (Appendix 2).

We commissioned a local graphic designer to create a logo for the project. This graphic designer also later worked on the leaflets and was consulted on the website design.

Seminars

The second strand of the project was undertaking practice seminars with the key groups- GPs, admin staff and patients in each practice. For GPs and staff, at least one seminar had been held in every practice by July 2019. At these first seminars we introduced the project and shared some of the important research on the benefits of continuity. Most importantly, we encouraged GPs, patients and practice staff to talk about their ideas and feelings on continuity and the current situation in their practice. The seminars were all chaired by Sir Denis Pereira Gray and run along the lines of an interactive small group. In total, we provided 33 seminars face-to-face in the five practices.

In subsequent seminars we also shared the continuity data which had been gathered by the practice and discussed the interpretation of this. GPs were very interested in seeing their own continuity scores. We continued to discuss the research evidence on continuity and to suggest some of the methods and techniques a practice might use to improve continuity.

There was always a summing up or concluding session (DPG) which was an opportunity to highlight important statements, to correct any misunderstandings, and request evaluation for each seminar. No GP seminar ever went over length. GPs were asked to complete a simple feedback form at the end of each seminar.

Although the majority of the partners attended most of the seminars, it was notable that missing one seminar meant that that particular GP was significantly disadvantaged in following meetings and numerous recaps were needed particularly around the technical details of the SLICC and the OPR. There was also considerable flux in the GPs within the practices during the period of the study, some practices underwent significant changes in GP staff during the study which again delayed learning. A sample agenda is in [Appendix 3](#).

The patient seminars were more difficult to set up. We had hoped to do this through the Patient Participation Groups (PPGs) at each practice. However, in some practices, these groups were not particularly well organised. It was not until December 2019 that we had managed at least one patient seminar at each practice. At these seminars we introduced the project and again discussed the research around continuity. We also facilitated discussions on continuity of care.

In these seminars, we piloted patient communication materials including our leaflets and project website. Patients should themselves know why continuity of GP care is in their interests. Since we were only able to reach a relatively small number of patients through the

seminars, we decided to make the information more widely available through leaflets designed for patients (Appendix 4). These included a summary of the major advantages which have been found by research to be associated with general practitioner care.

Patient Surveys

An important part of our project was to gather information direct from patients about how they experienced their consultation with the GP. No doctor can objectively evaluate the feelings of their own patients and we regarded it as essential to obtain the patient's perspective separately from any views the doctor might have. In order to do this as objectively as possible and with minimal bias we arranged for a research assistant, a senior nurse, to administer the evaluation questionnaire in the waiting rooms after the patient had completed the consultation. However, this method could not avoid the GPs being aware the evaluation was taking place in their practice.

There is evidence that continuity of GP care is associated with improved quality of GP care (Granier *et al.*, 1998; O'Connor *et al.*, 1998; Drivsholm *et al.*, 2006; Ridd *et al.*, 2006). As continuity of care is about improving the doctor-patient relationship, it can be tested by evaluating how patients themselves perceive the quality of the consultations.

We used questions derived from Reis *et al* (2008) which has been endorsed by the King's Fund (Freeman and Hughes, 2010) as particularly suitable for use in British general practice. Recently, the Royal College of General Practitioners (2021) also endorsed this questionnaire and listed its questions in its paper *The power of relationships: what is relationship based care and why is it important?* These questions are probing and thoughtful. They include: "My doctor really listens" and "My doctor knows me as a person" which are major challenges for personal doctors worldwide. To strengthen the instrument, we also incorporated the three questions of the CollaboRATE questionnaire (Barr *et al.*, 2014).

One additional question we added was whether or not the patient considered they had a regular doctor. This is an important measure as many of the benefits of continuity only occur if the patient feels they have continuity of care. If it is low, it is strong evidence that relationships are not being seriously sought in the practice concerned. This questionnaire is included in Appendix 5.

We had planned to achieve 50 surveys per doctor towards the start of the project and then another 50 towards the end. By December 2019 we had the first set of surveys completed from three practices. Unfortunately, our Research Assistant left for a job closer to home. In early 2020 we were continuing with our seminars and had sent our leaflets (Appendix 4) to be printed. We had put together a menu of methods that practices could try to use to improve continuity and were planning to put these to the GPs at the next set of GP seminars. We then recruited a new research assistant to carry out the surveys, to start in early March 2020.

Pandemic disruption

In mid-March 2020, the country went into lockdown due to the coronavirus pandemic and the project was put on hold. With the permission of the Health Foundation, we changed our project plan which meant that we continued to gather continuity data up to the end of the

project. We also continued analysing continuity leading to a published letter (Pereira Gray et al., 2020) on the changes in appointment types and an analysis article (Sidaway-Lee et al., 2021). We also continued to communicate with other project teams during this time.

The project restarted in October 2020, while the coronavirus pandemic continued, meaning we had to devise new ways of working. The seminars moved online, using the Zoom platform but with much the same format. The GPs had been through a lot of rapid change so rather than requiring more changes, we discussed the changes and how these related to continuity. We continued to share recent continuity research and supported GPs in maintaining and improving continuity. We provided five remote GP seminars during this time, with at least one for each practice. We organised an online patient seminar and we maintained regular contact with our staff champions.

We held an online meeting of the advisory committee as the project re-started. This was fairly well attended but unfortunately some of the patient reps were not able to join for technological reasons.

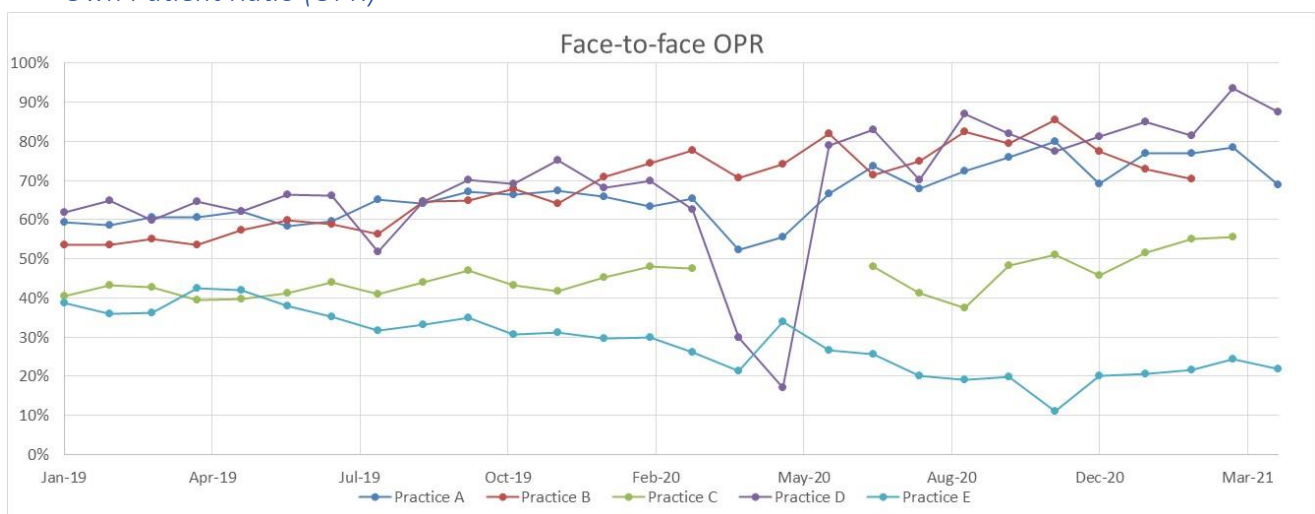
The surveys could also not continue as planned as it was no longer possible to approach patients in waiting rooms and most consultations were remote. In one practice we managed to run these using an online form with the practice using text messaging to ask patients to complete the survey after a consultation with a GP. The questions remained the same, except for the addition of one question about the consultation type i.e. face-to-face or remote.

Impacts

Continuity measures

The aim of the project was to improve GP continuity in five general practices in Exeter and East Devon. This was measured in each practice using our measuring toolkit. The results show the levels of continuity in each practice each month, from January 2019 to April 2021, for our measures of continuity.

Own Patient Ratio (OPR)

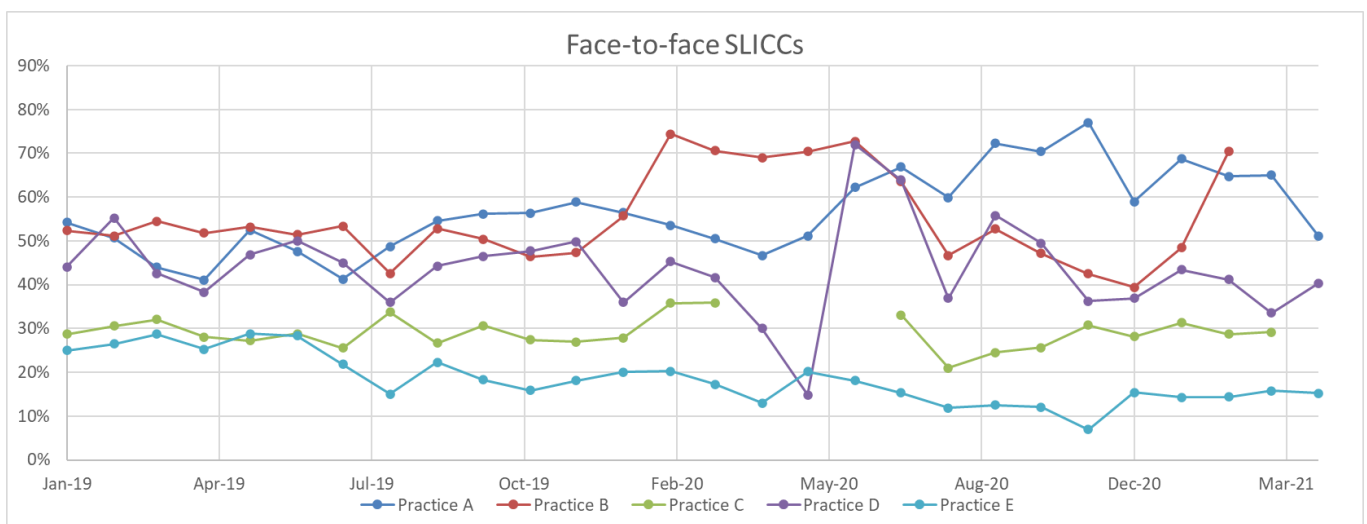


The Own Patient Ratio (OPR) shows the proportion of list-holding GP’s appointments that are with their own patients. This graph shows this for face-to-face appointments only. In the three practices which used personal lists, OPRs started at over 50% and followed a generally upward trend, with interruptions to the trend for the first few months of the pandemic, finally ending at 70-80%. The OPR is the measure most visible to GPs who can quickly see how many of their own patients they are seeing and increase this.

Practice C had missing data because, in response to the pandemic, the practice switched to a pooled appointment system that allowed all GPs to pull patients from a single list. Unfortunately, this meant we could not measure which doctor the consultations were with for those months.

On the OPR, using the Statistical Process Control (SPC) tool provided by NHS England, four of the five practices show improvement in their continuity levels (Appendix 6). The colour on these charts indicates levels significantly changed from the baseline. Although the OPR is doctor-centric and does not necessarily measure the experience of patients, doctors are seeing their own patients for a greater proportion of their time. This should mean these doctors are experiencing the doctor benefits of continuity.

Face-to-face SLICC

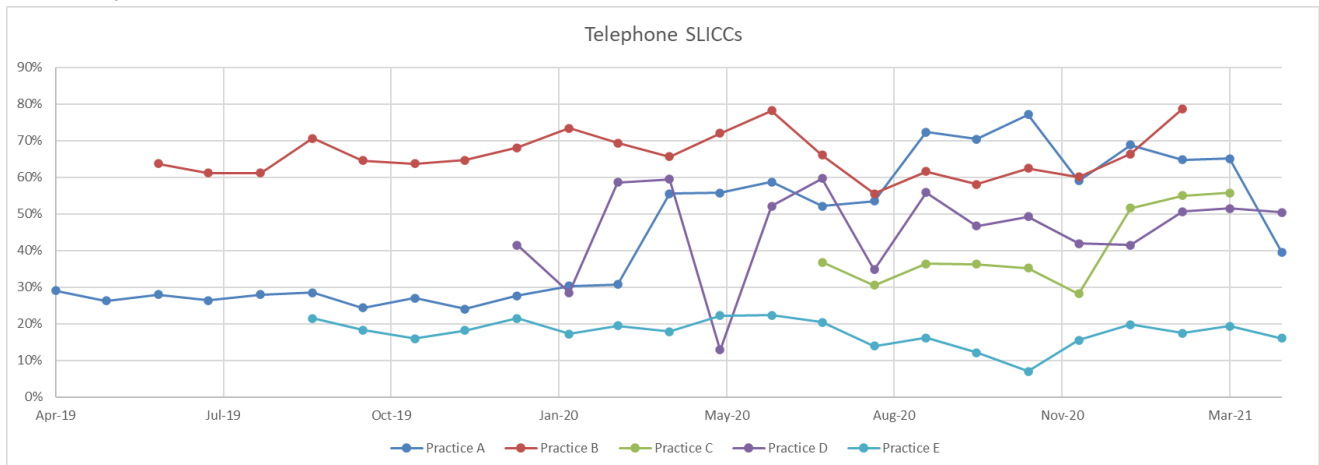


The St Leonard’s Index of Continuity of Care (SLICC) is the percentage of all patient consultations that are with the patients’ own GP. As it shows the continuity of care that patients actually receive, this is our main measure. The SLICC is the only inclusive measure of GP continuity as it uses every consultation by every patient with every GP and does not, like other measures, exclude any patients and consultations. In one practice the SLICC improved according to SPC analysis (Appendix 6) and held steady in three others. The exception is in one practice which did not use personal lists. This is against a falling trend nationally (Tammes *et al.*, 2021) and the pressures of the pandemic.

This measure is influenced by the numbers of non-list holding GPs in the practice and the number of appointments they provide. It is possible that in the practices where the OPR is rising but the SLICC remains steady, that demand has increased to the point that it is necessary to have more GPs to manage this.

We have failed to make any impact on continuity of GP care in one practice, where the latest SLICC score is <20%. The SPC tool shows a significant deterioration in GP continuity. We attribute this failure to differences in attitudes to continuity between the GP partners, a practice consensus to prioritise access over continuity. The default position in group practice is falling GP continuity unless a system, such as personal lists, is introduced to preserve it.

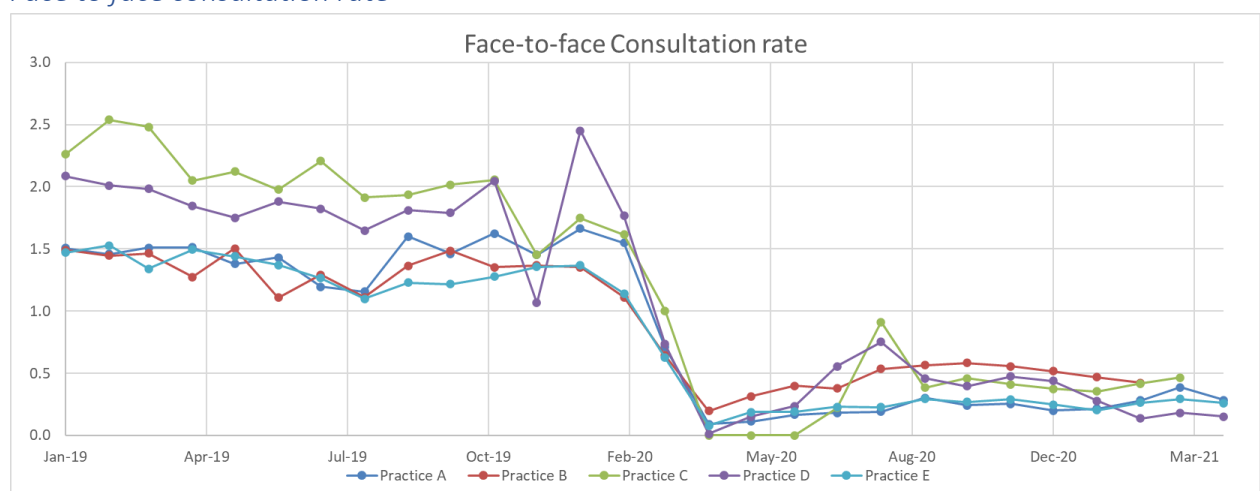
Telephone SLICC



The graph above shows the SLICC for telephone consultations. Originally, we measured face-to-face consultations only, but in response to requests and the big changes forced by the pandemic, we extended our system to record telephone SLICCs for all practices by July 2020.

In practice A, the increase in telephone calls, and these becoming a replacement for face-to-face appointments, meant that the telephone SLICC increased in response to the pandemic (SPC chart in Appendix 6). In practice B the telephone SLICC fell slightly, perhaps due to more acute issues being handled remotely. Practice E again showed no improvement on this measure. For the other two practices, measurement of the telephone SLICC did not begin until after the start of the pandemic, making it difficult to measure improvement.

Face to face consultation rate



The face-to-face consultation rate shown above is included here for context. This is an annualized measure so that each month's value represents the mean number of face-to-

face consultations per patient per year, if the entire year was the same as this month. The sharp drop in consultations during the pandemic is clear. This has not returned to pre-pandemic levels.

Impact during GP seminars

The pandemic disrupted both the practices and our systems; face-to-face seminars became impossible and had to be conducted on the Zoom platform. We have found this possible but less intimate and effective.

Sitting alongside GPs for 90 minutes each time in our workshops gave us an excellent opportunity, as planned, to listen to them and to observe any changes in behaviour. Some key impacts included:

1. The information that continuity of doctor care was associated with reduced mortality was not widely known when we began and has made a substantial impact on some GPs.
2. The benefits of feeding back to managing partners information about what was actually happening with regards to continuity in their practice. This was not previously known to them and was in general of great interest.
3. The topic of GPs following up episodes of illness in other partners' patients recurred. This reduces measured continuity (SLICC) for the other partner and available appointments for their own patients and the OPR for the GP concerned (if list holding). Referring patients quickly back to their accountable GP can greatly increase continuity. One GP found this a revelation and described it as "a liberation". However, in pooled list practices, providing episodic care may be a way of starting to improve continuity.
5. We noted examples of dependency by some patients on GPs in three practices. This is an adverse effect of continuity of care.

The majority of GPs in several seminars commented spontaneously that they found it easier to consult with patients whom they had previously known- new evidence in support of GP continuity of care. It is also evidence that GPs can carry mind pictures of key aspects of their patients in their heads over time.

The booked duration of GP consultations was a frequent topic. The national average was 9.4 minutes (Hobbs *et al.* 2016). Two of our five practices were providing 15 minutes or more before the project began and one changed from 10 minutes to 15 minutes after the subject was discussed at a seminar. We heard that GPs were often confident in establishing good relationships with patients in during one or two consultations. We regularly demonstrated the graph from Ridd *et al.*, (2011) which showed that on average it takes eight consultations between a patient and the same GP before the patient considers that a deep (trusting) relationship develops. This helped many GPs to realise that in terms of general practice continuity, every consultation counts.

Recurring topics were frequent attenders and how best the practice should respond to and "heart sink patients" which although few in number create disproportionate difficulty to

GPs. The tension between seeing patients in booked appointments and duty/on call sessions recurred, later in the project the pros and cons of remote consultations were discussed.

Culture change

Not all impacts were immediately visible. Sometimes in subsequent seminars we heard from both GPs and staff of changes made in practice procedures to increase continuity. Sometimes we would hear from the GPs of the difference that focusing on continuity had made to them.

Results from patient surveys

We obtained 1,122 patient responses from four practices. They revealed generally good consulting skills and one GP having patients awarding a mean of 4.9 out of 5 on several questions. Appendix 5 shows these results in the form of a table. In personal list practices, the patients were aware that they had a regular GP, with around 90% of them reporting this. There is an evidence nationally (Tammes *et al.*, 2021) that only 47% of patients report having a preferred GP. Our finding that these four practices showed a range of 79% to 91% of patients believing they have a regular doctor, is therefore important.

Promotional materials

Our leaflet for patients (Appendix 4) listing the benefits associated with continuity of GP care were seen by patient seminars and have been printed. They will be distributed when possible. Our website (www.continuitycounts.com) has much of the same information and also includes links to many of the key publications on continuity of care.

Learning

1. Learning about our project

The pandemic affected all the practices severely and the project team as well. We adapted the workshops, providing them through the Zoom platform, and also adapted the patient evaluation method. A big loss has been not achieving patient evaluation forms for one of the five practices and also not having a repeat measurement in each practice, as we had originally intended. The occurrence of such a severe pandemic was not anticipated.

Earlier in the project a problem was the lack of organisation within PPGs. We had planned to work with these groups to organise seminars but this was far more difficult than expected.

We realised that it was most important to focus on GPs and although there were some interesting insights from administrative staff, these came more easily through individual contacts than through large-scale seminars.

We discovered that several GPs were not aware of their contractual requirement to provide an accountable GP to all their patients, including children, and that the defined responsibility of an accountable GP is for the patient's physical and psychological concerns.

We discovered also that those practices not using personal lists knew little about them and did not understand that that system protects individual GPs from being swamped with

difficult or demanding patients from across the practice. However, we realised that this only works if the practice is fully committed. One doctor alone is likely to struggle to provide continuity.

Initially we asked practices to analyse their own data and report only the scores to us, to empower them. With hindsight it would have been better to have asked for anonymous raw data to allow more detailed analyses for example on frequent attenders. Some practices were willing to send this raw data in addition to scores and some were not.

2. The continuity culture

For those practices using personal lists the concept of continuity for all patients allied to the personal list concept was routine. In personal list practices, the responsibility for individual patients was clearly assigned to the named doctor who was the list holding doctor.

Correspondingly the relevant correspondence and results for those patients came to their own personal doctor. The continuity culture within these personal list practices was persistent despite changes in the practice doctors. This was particularly helpful in managing list size in relation to the availability of the doctors.

In other practices without a clear personal list, there was much less evidence of a continuity culture. These practices, perceived continuity as being at best episodic and at worst ad hoc or driven by the doctor or patient. In these practices the GPs took satisfaction in providing continuity throughout an episode of illness, although there was no clear division of labour for that particular patient. It was evident that correspondence such as referral letters and results for that patient could come back to their named doctor, who may not be the doctor providing continuity through the episode.

In practices without a clear personal list structure, the GPs often had an informal list of patients who they considered to be their own patients and to whom they were offering continuity. However, without the patient being aligned to that individual doctor by the named doctor tag this provision of continuity did not show in the continuity measurements.

3. Disputing the evidence-base for continuity

In the early seminars we spent time describing the evidence base for the benefits associated with continuity. Some GPs queried the validity and the observational nature of the research. This happened mainly in practices with relatively little continuity. In contrast, GPs in the practices with substantial continuity accepted the research as being obvious and immediately understood why for example improved patient satisfaction occurs.

GPs vary greatly in the systems of internal practice organisation and often do not know about important developments in other local practices. Some GPs undervalue themselves, not fully appreciating the added value they can bring to patients through good patient-GP relationships, built by continuity of care. General practice is quietly dividing into two groups of practices, a majority using the pooled list system and accepting low levels of GP continuity and low continuity is accepted and a minority of practices providing good GP continuity (SLICC \geq 50%; OPRs \geq 75%).

4. Episodes of illness

In some practices, the custom had been for the GP who happened to see the patient to see episodes of illness through. However, this policy which can involve a considerable number of consultations, and reduce continuity overall. Patients often disclose important information about themselves during acute illnesses and if this information is gleaned by a different doctor, it is usually lost to the accountable GP.

We think multiple separate episodes of care by different GPs indicates that the practice is not really committed to long-term enablement and patient-centred care for each doctor's personal list. An analogy is that GPs virtually never follow up episodes of illness in patients of other practices whom they have seen, and have no difficulty in returning those patients to their usual doctor. The personal list system extends this thinking within a group practice. Providing episodic care will be better than nothing in practices that have lost GP continuity and of course handing a patient back to their personal doctor is only possible when there is a personal list system operating.

5. Personal benefits to GPs of working in a continuity context

In seminars, GPs spoke eloquently about the benefits for them of working in a practice which encouraged continuity, both pre-pandemic and in a COVID-19 context. Some GPs who took on lists, having previously worked as registrars or locums, stressed the many benefits of continuity for them personally, which they had not experienced previously. An important feeling was then they were more in control of their work and not exposed to all the problem patients in the practice. These benefits included administrative benefits around the saving of time in each consultation and in record use, the greater job satisfaction that knowledge of patients gave them, as well as learning more about family contexts.

Some practices also felt that that having high continuity had reduced consultation rates, this led to the GPs feeling less stressed and empowered to cope with demand. This matches our provisional impression, as implied by Howie *et al's* finding (1999) that GPs can "enable" many patients (build up the patient's confidence and support more self-care), not yet quantified or confirmed, that general practices with high levels of continuity appear to be able to respond to increased demand more comfortably.

It was particularly clear in the virtual seminars conducted during the pandemic that those practices with a clear continuity context were able to adjust more rapidly to remote consultations and found that remote consultations with patients they already knew were much less demanding and easier than those with patients they had not previously met or knew.

There were powerful statements made by GPs saying that they could not have coped in the pandemic, without the framework of continuity.

6. The downsides of continuity

Dependency is a potential negative consequence of continuity and we observed it, but it loomed larger in the absence of continuity where it was feared. One GP referred to the "burden of continuity". This led into frequent discussions about 'heartsink' patients

(O’Dowd, 1988) and concerns that increasing continuity would increase the individual doctor’s number of heartsink patients which would be intolerable for the doctors expressing this concern. However, within personal list practices it was generally considered that high-demand patients such as these were relatively evenly spread across the lists. This was reported as being protective and more equitable across the practice. GPs discussed in some detail the issues around individual problem patients (anonymised) and how care for these patients could be improved by continuity or not.

7. Management implications of continuity

There were discussions about equitable distribution of workload and list size within the personal list practices, and the ability to match list size to availability.

8. Myths about continuity

In our seminars in five local practices and in the wider community of general practices, we have encountered myths which we define as strong beliefs in a minority of general practices which are not based on or which are contradicted by research.

Myth 1: It is not possible to provide continuity of general practitioner care with part-time GPs.

A common misconception was that good levels of continuity could not be provided by part-time GPs. When presenting continuity data back to the practices this was a frequent caveat expressed by some GPs. GPs were keen to point out their lack of availability when undertaking additional roles such as cottage hospital, CCG, PCN or academic roles which took them away from direct-facing care and hence reduced their availability and ability to provide continuity.

This is one of the most widely held myths and is demonstrably not true as most general practitioners in most general practices now work part-time and there are many examples of practices providing good GP continuity (Sayers, 2018) and we have reported one ourselves (Sidaway-Lee *et al.*, 2019). This is essentially an educational problem and we hope the RCGP will counter it.

Myth 2: All general practices are like my general practice.

The second myth is that many GPs extrapolate from the experience of their own practice to all British practices. Those advocating continuity or example have been criticised for not studying general practice “as it is.” Hence in general practices with low continuity of GP care it is sometimes wrongly assumed that this applies to all general practices. Conversely, this mistaken way of thinking is also found in practices which do use personal lists and with high continuity. The GPs and staff in such practices sometimes assume that most practices must use personal lists as they find it hard to believe that GPs could manage without the continuity and clear demarcation they provide. This too is an educational problem and we hope the RCGP will counter it and foster exchange visits by GPs to practices using different systems of practice organisation.

Myth 3: That many, or even most, patients do not benefit from continuity of GP care.

There never was any research evidence in support of this statement which is sometimes promulgated by practices with low continuity of GP care for whom the prospect of providing it for more than a limited target group (usually the elderly) seems too daunting. It is in effect a rationalisation of their status quo.

We know of multiple research studies clearly showing that continuity of GP care for children or young adults is associated with important benefits for patients. It is also not possible to predict which patients will benefit in the future from having continuity established now. If continuity is not offered to all patients, some who would have benefited, will miss out.

Myth 4: That organising a general practice through personal lists is old-fashioned and is associated with the TV programme "Doctor Finlay"

General practices whose system of practice organisation is based on personal lists have been consistent in telling us that it is the simplest and most efficient method available. The five general practices which we know about with the highest recorded levels of GP continuity all use personal lists. Two of them have been awarded CQC outstanding (only 4% of general practices receive this).

Myth 5: Informational continuity and management continuity can compensate for relationship continuity.

There is no research to support this. We have described (Sidaway-Lee *et al.*, 2021) informational continuity in general practice as essentially good record keeping and management continuity as good care and care plans. These are desirable but quite different from a human relationship. The research on continuity reveals the importance of the GP taking responsibility and a long-term view so as to enable patients over time and how patients develop trust in GP with continuity also over time (Mainous *et al.*, 2001). Relationship continuity is the key to the multiple effects associated with continuity.

Myth 6: Continuity of GP care means more work

There is no research to support this, although with personal lists and GP continuity "heart sink" patients become more visible. They are just as common in pooled list practices but are less obvious as they rotate around different GPs often receiving multiple investigations and becoming frequent attenders.

We have an emerging impression that frequent attenders are fewer in personal list practices which would be expected as a single GP with the advantage of repeated consultations slowly achieves deeper understanding of the real needs of such patients. If this is confirmed it will mean that continuity of GP care is associated with less work. This is likely for other reasons as continuity of care is significantly associated with: increased disclosure of information, significantly increased adherence to medical advice, medication and the uptake of personal preventive medicine which all adds up to fewer problems for those patients who receive continuity and less work for their GPs.

Spread and sustainability

Sustaining impact locally

We hope the participating practices will chose to continue to measure their continuity and value continuity when making management decisions and we will offer continuing support.

Working with other sites in the Health Foundation programme

Good relationships have been built with other sites in the programme. St Leonard's was pleased to provide two of three speakers (DPG and PHE) for the Health Foundation/ RCGP webinar on continuity. It has also been consulted frequently by other sites on continuity research and data interpretation. Two of us (DPG and PHE) gave a lecture on GP continuity in Weston-super-Mare and two of us (DPG and KSL) visited two general practices one in Bristol and one in Weston-super-Mare to advise on measuring continuity. Two of us (DPG and KSL) were invited to lecture at the Cumbria wing of the project which unfortunately had to be cancelled because of the Covid pandemic.

We are involved in an important initiative with the RCGP and One Care to see if it is possible to build a group of GPs providing good continuity of care who can act together as continuity champions.

Two of us (DPG and KSL) joined Professor Rickenbach in a poster presentation for WONCA on 20-minute consultations. We were grateful to be introduced to a number of practices interested in providing continuity of care through the Health Foundation project. We were particularly encouraged to find a practice with exceptionally high GP continuity which had also been awarded CQC outstanding and external awards for high quality of care. We visited a practice with 18,000 patients in a socially deprived area which was successfully using personal lists. The five general practices with the highest measured levels of continuity on the SLICC all use personal lists.

PHE collaborated with Dr Rosen of Valentine Partnership and Professor Rickenbach to present an hour-long webinar at the RCGP Annual Conference health virtually in 2020.

The latest version of RCGP toolkit has been mainly written from One Care and Cumbria and we hope to contribute a section on personal lists in general practice.

Publications in medical journals

Continuity and mortality

The systematic review on the relationship between continuity of doctor care and mortality (Pereira Gray *et al.*, 2018) was designed and conducted entirely within the research practice. It was published at the time that the Health Foundation was launching its continuity of GP programme. This article has continued to attract interest during the course of the programme and now has 264 citations, an Altmetric score of 2422, and has had 88,000 downloads.

Measuring continuity

A core principle of the St Leonard's approach towards improving GP continuity has been to encourage and support general practices in measuring it. In 2019 an article we wrote on measuring continuity of GP care was published in the *British Journal of General Practice* (Sidaway-Lee *et al.*, 2019). It described our method of measuring continuity in day-to-day general practice. The main findings were that more than half of all face-to-face appointments in a practice of 9000 patients were with their personal doctor. For patients aged 65 or more 65% of all appointments were with the personal doctor. This was despite all the GPs in the practice working part-time and having six weeks holiday a year. KSL presented this paper at the national conference of the Society for Academic Primary Care in 2019.

Encouraging professionalism in general practice management

Whilst it is necessary to measure continuity if it is to be properly managed, the principle extends to other features of general practice management. An article, which followed from the continuity programme, identified eight key pieces of information all of which can be obtained from general practice computers which assist in logical management of modern of general practices (Pereira Gray *et al.*, 2019).

Continuity and personal care

St Leonard's provided two of four authors (DPG and Catherine Johns, chair of the practice PPG of an editorial in the *BMJ* on personal care in general practice which emphasised the importance of GP continuity and the provision of empathy by GPs (Pereira Gray *et al.*, 2020).

GP empathy

During the programme several research studies reported that when patients perceived that the GP had provided empathy that good outcomes, including reduced mortality occurred (Dhamba-Miller *et al.*, 2019). One of us (DPG) co-authored, with the Secretary of the Council of the RCGP and the Deputy Director of Health Education England, an article emphasising this important development (Tortziou Brown *et al.*, 2020).

The mechanisms by which continuity effects occur

With the increasing number of publications showing positive associations for patients and GPs from continuity of GP care and with these benefits including two systematic reviews showing reduced mortality, the question arose as to how these effects occur. Our article on the mechanisms is the first of its kind and was published in June 2021 in the *British Journal of General Practice* (Sidaway-Lee *et al.*, 2021). It also clarifies five adverse effects of continuity of doctor care and describes probable mechanisms for these as well.

Other publications

At the start of the Covid-19 pandemic, we had data recording systems in place, we were able to report the reduction in face-to-face consultations and this was published in a letter in the *British Journal of General Practice* (Pereira Gray *et al.*, 2020). This was the first published report of the extent of the reduction in face-to-face consultations.

Citations

Over the years staff in the St Leonards Practice have written 29 articles related to continuity of care and during the programme these have continued to attract citations. Currently there have been 2480 citations to this body of work.

Wider influence

Our vision

Our vision is that GPs will steadily reconnect with the research base of their own subject and increasingly change their practice organisation to foster GP continuity. We hope that the research on the advantages and side effects of continuity will be taught systematically to both undergraduates and postgraduates. Similarly, we hope to see GP vocational training teach the pros and cons of both personal and combined list systems of practice organisation and all GP trainees should experience both. We hope general practices delivering good GP continuity will band together, support each other in combining to demonstrate how much GP continuity is possible thus first halting and then reversing the current national decline.

Further publications

The St Leonard's Research Practice has a long history of writing articles for publication and plans to continue to do so after the Health Foundation programme finishes.

Visitors

A long-standing tradition in SLMP is to host visits. All visits were lost in the pandemic but we are resuming these soon with Dr Phil Whitaker, the medical correspondent of *The New Statesman* and Professor Martin Marshall CBE, Chair of the Royal College of General Practitioners.

Continuity Measurement Toolkit

Over the last two years many contacts have been made with other GPs who work in general practices using the EMIS system. We have now been able to adapt our templates so that continuity can be measured in EMIS practices using the SLICC and OPR. This has recently been successfully undertaken in Professor Rickenbach's practice. We now expect to be able to collaborate with more colleagues in this way and are already in contact with another practice willing to trial this tool.

Policy recommendations

- That the Department of Health and Social Care (DHSC) prioritises GP continuity as it has done for midwifery continuity in the *NHS Long Term Plan*.
- That the DHSC mandates the software suppliers to provide software making GP continuity measurements easily accessible in NHS general practices.
- That the Health Foundation will follow up its important decision to fund this innovative programme on continuity of GP care by continuing to advise the DHSC about the research base for continuity and the lessons learned in this programme about how best to provide it.

- That the RCGP also encourages GPs to visit other practices using different systems of practice organisation.
- That the RCGP should actively disseminate evidence of the benefits associated with GP continuity of care and evidence-based methods, for achieving it in practice, especially the importance of measuring GP continuity in general practice and using the personal list system.
- That the NIHR funds research on continuity leading to a randomised trial of improving continuity and its benefits.
- That Health Education England prioritises the teaching of GP trainees about research on continuity of GP care and the pros and cons of personal and pooled lists.

The Health Foundation

We have appreciated all the events and activities and the support of the Foundation throughout. As an RCGP-orientated general practice with a former Chair and President of that that College in our team, we were particularly pleased that the Royal College of General Practitioners joined the programme as a learning partner. Professor Mark Rickenbach, the RCGP Continuity Champion, came to Exeter and has been in close touch with us and has initiated several valuable activities with us.

We have benefited substantially from being part of the wider Health Foundation programme and have had productive discussions with Bristol (One Care), Cumbria, the Valentine Group, Weston-super-Mare, and at the meetings organised by the Health Foundation itself we have learned about introducing measurement of GP continuity.

We valued the links with other sites in the programme and visited both Weston and One Care in Bristol. We are grateful to Drs Kevin Haggerty who invited us to give a lecture and to Dr Jacob Lee in Bristol; both hosted a visit from us and both showed us the continuity data in their practices. Julia Martineau has been most supportive and introduced us to the Greenway Practice with its awards and exceptionally good GP continuity. We admire the dashboard developed by Jo Knight and Dr Hugh Reeve in Cumbria and their policy development at scale. We appreciated their invitation to lecture there and regret the pandemic prevented that happening. We were pleased to meet Dr Rebecca Rosen at the Valentine Group repeatedly and have valued the advice of Tony Hufflett.

Our only thought on what the Foundation might have done better and is that a short extension to the project would have helped counter some of the disruption caused by the Covid-19 pandemic.

Throughout the programme the research base for continuity of care has extended continuously especially through Baker *et al* (2020) showing in their systematic review that the reduction in mortality with continuity of doctor care occurs with GPs, too. This strong body of knowledge makes the Health Foundation's decision to invest substantially in GP continuity visionary and Europe-leading.

Budget update

Please see Appendix 6 for the latest version of the project budget.

Appendices

Appendix 1 Methods for data extraction and determining consultation type.

Appendix 2 The range of variation between 33 GPs in the SLICC

Appendix 3 Sample agenda for GP seminar

Appendix 4 Patient leaflet

Appendix 5 Patient questionnaire

Appendix 6 SPC charts of SLICCs, OPRs and telephone SLICCs for the five practices over the course of the project.

Appendix 7 Results from patient questionnaires

Appendix 8 Updated budget

Appendix 9 References