

Evaluation of New Models of Primary Care

Inverclyde Case Study

January 2018



Key Messages

Background

The Scottish Government is funding Scottish NHS Health Boards, through a number of different funding streams, to test new models of delivering primary care. This report concerns the first in a series of case studies conducted by the Scottish School of Primary Care that will contribute to the evaluation of these new models. It focuses on Inverclyde in NHS Greater Glasgow & Clyde which was selected in September 2015 to pilot new models of care, including the formation of GP Clusters, ahead of the release of funding to other Scottish NHS Health Board areas in April 2016. The evaluation was carried out between 1 October 2016 and 31 March 2017.

Inverclyde

Inverclyde is a small, discrete locality, situated to the west of Glasgow. Compared to the rest of Scotland, the population of Inverclyde is slightly older. Inverclyde contains mainly areas of significant socio-economic deprivation as well as a few areas of significant affluence. It is served by a single District General Hospital with an intensive psychiatric care unit, 15 care homes, 19 community pharmacies and 71 General Practitioners (GPs), working across 16 GP Practices. Health and social care services are managed by the Inverclyde Health and Social Care Partnership and overseen by the Inverclyde Integrated Joint Board (IJB).

Findings

The 16 Inverclyde GP Practices have formed 4 GP Clusters, one of which contains only 2 GP Practices. The functioning of the GP Clusters remains at an early stage. Their intrinsic work in quality improvement is likely to emerge relatively quickly, but their extrinsic role, especially in engagement with IJBs, may take longer.

The 6 tests of change conducted to date have generally involved a few GP Practices within or across GP Clusters. There has been limited engagement of the wider primary healthcare team or the public in the choice and design of the tests of change. The potential effects of new models of primary care on health inequalities is unclear.

Tests that were relatively easier to implement (**Phlebotomy and Nurse-led Telephone Triage of GP Home Visit requests**) drew on existing staff. Tests that were still in planning or early implementation phases (**Advanced Nurse Practitioner, Musculoskeletal Physiotherapy, and Paramedics**) required recruitment and training of new staff, contractual negotiations and significant input from GP Practices. One planned test (**Activities of Daily Living Smartcare**) was subsequently incorporated into a wider local development for patient information systems. All projects had substantial need for support in data access, collection and analysis.

Key Learning

Healthcare staff require substantial support for data collection, extraction and analysis, which the recent expansion of Local Intelligence Support Teams is designed to provide. The internal role of GP Clusters in relation to improving the quality of care for their combined patient populations requires time to develop new trusting relationships. Their external role in relation to reorienting the NHS in Scotland towards integrated new models of primary care requires close collaborative working and practices, particularly with IJBs. Early and comprehensive engagement with the wider healthcare team and with service users is of paramount importance in moving forward. It is also important to ensure that the most deprived communities benefit as much as the more affluent.

Abbreviations

A&E	Accident & Emergency
ANP	Advanced Nurse Practitioner
APP	Advanced Physiotherapist Practitioner
BMA	British Medical Association
CHCP	Community Health and Care Partnership
CQL	Cluster Quality Lead
DN	District Nurse
FTE	Full Time Equivalents
GG&C	Greater Glasgow and Clyde
GMS	General Medical Services
GP	General Medical Practitioner
HCA	Health Care Assistant
HCSW	Health Care Support Worker
HIS	Health Improvement Scotland
HSCP	Health and Social Care Partnership
IJB	Integrated Joint Board
ISD	Information Services Division
IT	Information Technology
LISTs	Local Intelligence Support Teams
MSK	Musculoskeletal
NES	NHS Education for Scotland
NHS	National Health Service
NP	Nurse Practitioner
PCTF	Primary Care Transformation Funds
PM	Practice Manager
PN	Practice Nurse
PQL	Practice Quality Lead
QOF	Quality and Outcome Framework
QI	Quality Improvement
RCGP	Royal College of General Practitioners

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Executive Summary

Scotland, like many other countries in the world, faces the growing dual challenge of an ageing population and widening health inequalities, together with substantial fiscal pressures on public care services. In response, Scotland has taken steps aimed at improving the integration of health and social care, relieving workforce pressures and maintaining high quality care. These include:

- the integration of health and social care by legislation, and the resultant formation of Integrated Joint Boards (IJBs)
- the development of a new Scottish General Medical Services (GMS) Contract in which the recently discontinued Quality and Outcome Framework (QOF) of the previous UK-wide contract will be replaced. As part of this, GP Practices will work together in clusters to improve quality on the basis of the needs of their local populations
- the development of new ways of working and new models of primary care including enhanced roles for an expanded multidisciplinary team
- new investment of £250 million in general practice and primary care

In September 2015, Inverclyde Health and Social Care Partnership (HSCP) was approached to work in partnership with NHS Greater Glasgow and Clyde (GG&C), the Scottish Government (SG) and the British Medical Association (BMA) to pilot tests of new models of primary care. In the same month, the Scottish School of Primary Care (SSPC) was commissioned by the SG to help evaluate these new models. The SG was keen that Inverclyde should undergo an early and rapid evaluation. This report documents this work.

Inverclyde

Inverclyde is a small, discrete locality in NHS GG&C, situated to the west of Glasgow. In 2015, its population was 79,500, representing 1.5 per cent of the total population of Scotland. Compared to the rest of Scotland, the population of Inverclyde is slightly older. Similar to the rest of Scotland, the age group projected to increase the most in size in Inverclyde is aged 75 years or older. Inverclyde contains mainly areas of significant socio-economic deprivation as well as a few areas of significant affluence.

Health and social care services in Inverclyde are managed by its HSCP. It uses 3 geographical areas, called Wellbeing Localities, to focus service planning and improvement for local neighbourhoods and communities. Planning and provision for each locality is overseen by the Inverclyde IJB.

Inverclyde is served by a single District General Hospital with an intensive psychiatric care unit, 15 care homes, 19 community pharmacies and 71 GPs, working across 16 GP Practices.

Evaluation Aims

The broad aims of the Inverclyde case study were to:

1. understand the local context of Inverclyde in which the new models are being tested

2. identify the models of primary care that are being tested including the early piloting of GP Clusters
3. explore which models seem to be working well and why, which are not working well and why, and which might be the 'best bets' for future investment and roll out.

Methods

The evaluation was carried out between 1 October 2016 and 31 March 2017.

Data were collected by documentary analysis and by interviewing key informants, and analysed using a thematic approach. A total of 204 documents were reviewed and individual interviews were carried out with 27 key informants. The key informants represented HSCP managers and clinicians; GP Cluster Quality Leads; Test of Change Workstream Leads/Facilitators; nursing, pharmacy, physiotherapy and third sector representative; NHS GG&C Clinical Governance Facilitators; and an Information Technology (IT) Support Officer.

Inverclyde GP Clusters

Four GP Clusters were formed by November 2016 and, at the time of the interviews with key informants (from October 2016 to March 2017), their work was still at an early stage.

Key Findings

- The formation of GP Clusters was relatively easy in Inverclyde because, in the main, GP Practices were based in geographical areas that lent themselves to cluster formation. However, one comprised only 2 GP Practices serving more affluent areas, and some felt this was too small to be sustainable in the long term.
- It took some GP Clusters considerably longer than others to identify and appoint a Cluster Quality Lead. The skills needed for this new role are currently unclear as the job is likely to evolve over time.
- There was a perception that initially too many meetings were being held which was increasing rather than decreasing workload. GP Cluster formation is a cultural change, and such change takes time and the development of trusting relationships.
- The input of the HSCP appeared important in getting the GP Clusters formed and functioning. However, there was evidence that their data support needs were still unmet.
- Focusing on the 'intrinsic' function of the GP Clusters is likely to be relatively straightforward as they 'bed-in' and areas for Quality Improvement (QI) are agreed. However, there was widespread agreement that the 'extrinsic' role was also crucial, especially meaningful engagement with the IJB, which was slower to evolve.

Inverclyde Tests of Change

This programme of work was driven by the Inverclyde HSCP, which created an infrastructure to provide strategic direction, overarching governance and management, and support relating to finance, information technology, patient/carer involvement, QI, and outcome measurement.

The 6 piloted tests of change involved one or more GP Practices within a single GP Cluster or across GP Clusters. These were Phlebotomy, Musculoskeletal (MSK) Physiotherapy, Advanced Nurse Practitioners (ANPs); Home Visits (Telephone Triage and Paramedics), Activities of Daily Living (ADL) Smartcare; and Health Care Support Workers (HCSWs).

The choice of the tests was based on knowledge of primary care service developments elsewhere or on Inverclyde GPs' ideas and perceptions of needs. Other members of the primary care team were subsequently involved in developing and implementing the tests. There was little evidence of patient or public involvement in the choice, design or locus of the tests. Views on the extent to which these tests of change would help mitigate inequalities in Inverclyde varied.

In terms of progress, the tests of change could be categorised into 3 broad groups:

1. Tests of change that have been implemented and were either fairly well established or complete i.e. Phlebotomy and Home Visits (Telephone Triage).
These were generally based on refinement of the roles of existing staff and did not require prolonged training or mentoring from GPs.
2. Tests of change that were still in the planning stage or early in the implementation process i.e. ANPs, Home Visits (Paramedics), and MSK Physiotherapy.
These required a long lead in time for staff recruitment and training, for the development of competency frameworks for new roles, and for contractual and governance arrangements to be put in place. In addition, these tests generally required significant input from GPs involved in training and mentoring new staff in these new roles in primary care.
3. Tests of change that were abandoned during the planning stage or early in the implementation process i.e. ADL Smartcare.
Relatively late in the planning process, an analysis showed that cost outweighed the potential benefit of this in Inverclyde. It was reported that the needs of primary care relating to digital access will be explored through a wider access to services programme for other care sectors.

The HCSW test of change could not be categorised because of the dearth of information about the model that was ultimately tested, about progress during its implementation, and about outcome at the end of the test.

Tests of change that have been implemented successfully

Phlebotomy

The overall aim of the Phlebotomy test of change was to develop a reliable and responsive Phlebotomy Service. This was expected to release capacity for GPs, Practice Nurses (PNs) and Treatment Room nurses, and to increase job satisfaction for GP Practice staff.

Key findings:

- Progress was reported as good in terms of implementing the Phlebotomy Service in each of the 2 sites where it was tested (Port Glasgow and Greenock).
- Feedback from the GP bespoke data recording form indicated that in Port Glasgow 25% of venepunctures would previously have been carried out by a GP or PN, 60% by a Treatment Room nurse. For the Greenock site, these proportions were 25% by a GP or PN, 0% by a Treatment Room nurse.

This test of change was considered relatively easy to implement. Its sustainability was not highlighted as problematic as its associated costs were minimal.

Home Visits (Nurse led telephone triage)

Two individual GP Practices within a Health Centre in the Greenock Cluster chose to adopt and develop this test of change. However, one subsequently withdraw due to staffing issues.

Key findings:

- Nurse-led telephone triage was implemented with relative ease in the participating GP Practice by June 2016. The model was tested for approximately 3 months before being implemented as standard practice in the participating GP Practice.
- During the test period, there were 193 requests for a GP Home Visit; 35% were triaged by the PN. Thirty-nine of all requests (20%) did not translate in a GP Home Visit on the day of the request; representing 38 (56%) of all triaged requests and 1 (1%) of all requests that were not triaged.
- Over a quarter (27%) of the GP Home Visits that were carried out were judged as being able to be carried out by a nurse.

Sustaining the service within the test Practice did not require additional investment.

Tests of change that have been partially implemented

MSK Physiotherapy

The overall aims of this test of change were to release GP capacity (a baseline audit suggested that 10-20% of GP consultations could be undertaken by a MSK physiotherapist), improve patient access to appropriate services; avoid the development of chronic problems; and reduce pressure on mainstream MSK physiotherapy services.

Key findings:

- Implementation of the test required a long lead in time for recruiting a physiotherapist, developing the role, and training the physiotherapist and participating GP Practices' staff.
- It was reported that preliminary data analysis was beginning to show impact in terms of released GP appointments. This was supported by anecdotal evidence from GPs who reported seeing fewer patients with MSK issues.

- It was also reported that there was some evidence that drug prescribing had decreased for patients presenting with a MSK problem.

Sustaining the service within the existing GP Practices would require additional investment.

Advanced Nurse Practitioners

The stated overall aim of the test of change was to free up consultation time within GP Practices by patients seeing the right person first time.

Key findings:

- This test of change became operational in February 2017, with the first Nurse Practitioner (NP) undertaking extended activities in a GP Practice. The planned end date for this test is March 2018 when this nurse will be the first Inverclyde GP Practice ANP. By this time, it is hoped that Inverclyde will also have at least 6 or 7 trained NPs.
- Barriers include the time it takes to train to the level of an ANP and the associated implications in terms of GP Practice capacity to release PNs for training and provide mentorship by GPs. There was also a perception that the lack of available Masters degree places, and variation in GP Practice needs had contributed to training most nurses to NP level rather than to ANP level, as originally intended.
- Given the training time involved, it will take a number of years to establish a significant ANP/NP workforce. Consequently, evaluation of the impact of this service development requires a much longer timeframe. Identification of appropriate outcomes measures were also anticipated to be difficult.

At the time of reporting, the only Inverclyde GP Practice NP had been operational for little more than one month. The ease by which this test of change can be implemented is not likely to be evident until a larger ANP/NP workforce is established.

Overview of the Tests of Change

Project design and data collection: Many of those interviewed reported that the pressure to get projects started and gather results quickly meant that the pre-project stage of design of data collection method was omitted, compromising the QI process.

Data extraction and data collection: Data extraction and collection was an area of particular difficulty for a number of tests of change. The need for better data support was a common theme.

Sustainability: There was general enthusiasm for the piloted new models of care but it was unclear from where continued funding would come, and this was said to be essential for the sustainability of most.

Conclusions

The journey to integration and transformation of primary care will take considerable time and much longer-term evaluations are required. For GP Clusters, their intrinsic role relating to QI was facilitated by one or more their GP Practice members adopting to pilot some of the tests of change. Their extrinsic role in terms of influencing policies and practices has been slower to develop.

The choice of new models of primary care tested in Inverclyde was based on GP views before formal consultation with the wider healthcare team. Although an ongoing consultation campaign has been implemented to inform and engage the public on tests of new models of care, there was little evidence of comprehensive patient or public engagement in their choice and planned implementation. Against this background, some perceived a risk that the most deprived patients could benefit less from them than more affluent patients.

All projects had substantial unmet data support needs relating to identifying relevant outcome measures and sources of data, recording and collecting data, and accessing and analysing data. The recent expansion of Local Intelligence Support Teams aims to provide this type of data support. Some believed that the New Ways of Working Pilot tests of change approach was very different to standard QI methodology, and that the urgency to deliver sometimes compromised data recording and collection.

The sustainability of the majority of the tests of change was unclear because of the lack of clarity on future funding for staff employed in new roles as well as for existing staff, particularly clinical, from whom significant input is required during the training and implementation periods of tests of change.

Key Learning

- GP Practices require substantial help with planning, implementing and evaluating new ways of working including GP Clusters. This includes improved support for data collection, extraction and analysis.
- The intrinsic role of GP Clusters in relation to improving the quality of care for their combined patient populations through peer-led review requires time to develop new trusting relationships.
- The extrinsic role of GP Clusters in relation to reorienting the NHS in Scotland towards integrated new models of primary care requires the development of closer collaborative working and practices, particularly with IJBs.
- Care in the development and planning stages is required to ensure that people living in and staff working in high deprivation areas are fully represented when GP Clusters and new ways of working are formed.
- Early engagement with the wider primary healthcare team and service users in the planning, design, implementation and evaluation stages of new models of working should be considered an important lesson for the future.

- Tests of change that need significant new investments require early rigorous appraisal for local suitability before attempts are made to implement them, as the local context is very important.
- Clear communication and co-ordination between all services involved in introducing tests of change is required in order to avoid duplication of effort.
- Much longer-term evaluations are required to inform fully the progress made in terms of robust patients and service outcomes. These should be planned well in advance and where possible undergo an evaluability assessment prior to evaluation being started.

1. Introduction

1.1 General Context

Scotland, like the rest of the UK and most countries in the world, is experiencing a growth in the number and proportion of older persons in its population [1]. Scotland also has wide inequalities in health [2]. Both issues contribute to an increasing number of people living with a multiple long-term conditions. In Scotland, at least 40% of the population have a long-term condition, and 25% have two or more (multimorbidity) [3]. In deprived areas in Scotland, people develop multimorbidity some 10-15 years earlier those living in affluent areas [3]. Consequently, Scotland is facing increased pressure on the health and social care systems and will to continue to do so in the future [4].

In relation to primary care in Scotland, there has been a rise of 11.5% in General Medical Practitioner (GP) consultations between 2003 and 2013 [5]. Increasing demand on GP services is also attributed to a number of system-related factors [6], including:

- **medical advances** such as screening programmes and preventative medication
- **preventative service developments**, particularly those driven by the recently discontinued Quality Outcome Framework (QOF), the lowering threshold for management of conditions by clinical guidelines, and health campaigns encouraging the public to consult GPs
- **policy drivers** that encourage the move of hospital services to primary care
- **increase in non-clinical work** such as letters requested by patients relating to fitness to work, insurance, work places/schools and gyms
- **pressured District Nursing Services** that are less able to support GP Practices by undertaking preventative work and chronic disease management
- **increase in number of care home residents with complex needs**
- **increase in referral thresholds to other services** such as mental health and social services
- **difficulties relating to primary care and secondary care interface** such as accessing flexible support and advice (e.g. by telephone) and increase in sub-speciality leading to more complex referral routes.

Supply and demand issues have added to pressures faced by GP Practices:

- **Despite recent increase in the revenue budget, NHS spending is not keeping pace with the growing and ageing population, increasing demand and rising costs** [7].
- **For more than a decade, the share of NHS spending allocated to General Practice in the UK, and in Scotland has fallen year on year;** from 9.8% in 2005/06 to 7.8% in 2012/13. This drop has led to a real terms cumulative loss of investment [8].
- **General Practice is facing a crisis in recruiting and retaining its workforce.** In Scotland, there has been no increase in GP full time equivalents (FTEs) since 2009 [9]. Moreover, around 20% of the GP workforce is aged over 55 years, and around 33% of GPs plan to retire over the next 5 years [8]. Fewer GPs now work full time; 43% in 2015 compared to 52% in 2013 [9]. Around one-fifth of GP Practices (22%) reported vacancies in 2015

compared to 9% in 2013 [9]. Practices also report difficulty in finding locum nurses for planned and unplanned leave [9].

- ***The inverse care law persists.*** There is a mismatch between need and supply in primary care in deprived areas due to the way services are configured [10], resulting in greater pressures on General Practice and poorer outcomes for patients [11].

In response to these growing pressures, Scotland has taken steps aimed at improving the integration of health and social care, relieving workforce pressures and maintaining high quality care. These include:

- the integration of health and social care by legislation, and the resultant formation of Integrated Joint Boards (IJBs) [12].
- the development of a new Scottish General Medical Services (GMS) Contract in which the single-disease focus of the previous UK-wide contract for GPs will be replaced by one in which GP Practices are enabled to work as expert clinical generalist in communities providing clear leadership in response to the increasingly complex care needs of Scotland's population. This will include practices working together in clusters to improve qualityⁱ [13].
- the development of new ways of working and *new models of primary care* including enhanced roles for an expanded multidisciplinary team [14].
- new investment of £250 million in general practice and primary care [15].

1.2 Evaluation Context

The Scottish Government (SG) has designated £20 million to new models in primary care through the Primary Care Transformation Fund (PCTF), which is part of a £60 million fund also covering mental health, community pharmacy, and Out-of-Hours (OOH) care. The SG invited all territorial Scottish Health Boards to submit joint bids for PCTF and the Primary Care Mental Health Fund for projects testing new models of care, starting from April 2016 and to run for up to 2 years. In September 2015, the Scottish School of Primary Care (SSPC) was awarded £1.25 million by the SG to help evaluate new models of primary care that are being tested throughout Scotland.

The focus of the SSPC evaluation is on models directly related to primary care transformation except those that are, or will be, subject to separate evaluation through different funding streams such as community pharmacy or OOH care. It will include GP Clusters in relation to their involvement in the tests of new models of care. The aim of this evaluation is to explore these 'tests of change' of primary care in relation to what seems to be working well and why, what doesn't and why, and what might be the 'best bets' for future investment and roll out. It is anticipated that some of this will be context specific i.e. what is working well in one Scottish Health Board may not be working so well in another, and it will be important to understand why this is so.

It is not possible to evaluate all of these in detail, so the SG agreed that the SSPC should provide an overview of the progress of the new models across all Health Board areas, which will be enhanced by a number of detailed case studies as illustrations. To date, the SG has asked the SSPC to focus the

case studies on four territorial Health Board Areas (Ayrshire & Arran, Highland, Lanarkshire and Tayside), and two themed tests of change (Advanced Nurse Practitioners (ANP) and Musculoskeletal (MSK) Physiotherapy) across the whole of Scotland. All of these will be underpinned by one other case study, which will focus on issues relating to the availability of, and access to, routinely held data that could potentially help evaluate primary care service developments. Work on these case studies started in April 2017 by SSPC member universities or affiliated universities.

In addition to these seven case studies, the SSPC carried out an additional shorter (conducted over a 6 month period) case study, which focused on Inverclyde within NHS Greater Glasgow & Clyde (GG&C). Inverclyde was selected in September 2015 to pilot new models of care, ahead of release of funding to other Health Board areas in April 2016.

This early Inverclyde case study provided the opportunity for the SSPC to pilot its Evaluation Framework (Appendix A). This report describes the application of this framework in the Inverclyde case study, reports the findings and discusses their implications.

1.3 Evaluation Aims

The broad aims of the Inverclyde case study were to:

1. understand the local context in which the new models are being tested
2. identify the models of primary care that are being tested including the early piloting of GP Clusters
3. explore which models seem to be working well and why, what are not working well and why, and which might be the 'best bets' for future investment and roll out.

2. Methods

The Inverclyde case study was conducted over a 6 month period (October 2016 to March 2017) and concerned the immediate 17-month period after Inverclyde received funding to pilot tests of new models of primary care (September 2015 to March 2017).

2.1 Case Study Design

The approach adopted was based on the SSPC Evaluation Framework agreed with SG (Appendix A). Within this a number of key questions were addressed which first sought to determine the theory underpinning the tests of change and their expected impact, before determining their actual impact, key learning, spread and likely sustainability.

2.2 Data Collection

A team of four researchers collected data from national and local sources by documentary analysis and by interviewing key informants.

2.2.1 Documentary analysis

In relation to providing the broad context for quality improvement (QI) initiatives in primary care, initial data sources were identified by SSPC members who represented experienced primary care researchers and people concerned with the development of national policy relating to QI in primary care. The websites of the SG, British Medical Association (BMA), Royal College of General Practitioners (RCGP) and other health and social care organisations were searched for relevant records and announcements during the 3-year period spanning January 2014 to December 2016. References listed in these documents were then reviewed in order to identify additional salient material. Documents and grey literature were added as released during 2017. In addition, Dr Adrian Rohrbasser and Professor Bruce Guthrie shared a database of literature created for a systematic review on quality circles. This was reviewed to identify relevant sources of information.

In relation to providing an overview of the local Inverclyde context, reports, minutes of meetings were obtained from NHS GG&C and related organisations' websites and from key informants in Inverclyde as contact was established.

2.2.2 Key informant interviews

A *snowball approach* was used to identify and recruit potential key informants whereby each interviewed individual was asked to suggest others who should be invited to be interviewed. Thus, the inclusion of key informants developed iteratively. Key informants provided information relating to the broader policy context of QI initiatives in Scotland as well as information specific to Inverclyde.

In relation to the broad policy context, the initial list of key informants were identified by SSPC members who represented experienced primary care researchers and people concerned with the development of national policy relating to QI in primary care.

In relation to the Inverclyde specific context, the first key informants were identified through discussion with the SG Primary Care Division, and by reviewing recent documents relating to relevant developments in Inverclyde.

A preliminary interview schedule outline was developed based on the SSPC Evaluation Framework and the findings of the documentary analysis. This was refined and developed into two templates; one for key informants involved in primary care policy and strategy development, and one for key informants in Inverclyde (Appendices B and C).

Potential key informants were initially sent an invitation to participate in the study by email, which included a Participant Information Leaflet and Consent Form (Appendices D and E). Once agreement had been reached and arrangements made for the interview, the key informant was sent a copy of the interview schedule outline to facilitate the opportunity to obtain considered views.

Before each interview, the key informant signed the study Consent Form. If the key informant had agreed, the interview was audio recorded, otherwise notes were made by the researcher. Recorded interviews were transcribed verbatim. Key informants were sent copies of their transcripts to check for accuracy and for additional comment. Additional comments obtained were incorporated into the data for analysis.

2.3 Data Analysis

Data were analysed using a thematic Framework Approach, which has been used since the 1980s to manage and analyse qualitative data in applied policy research [16]. It is being used increasingly in health service research, particularly for studies that have been commissioned and are based on structured topic guides. Its highly structured approach is particularly appropriate for research similar to this study, which involves a team of researchers, as it provides a clear audit trail of the steps involved in data collection and analysis. This enhances the rigour of the analytical process.

In this study, key policy and meeting documents of the SG, BMA, NHS GG&C, Inverclyde IJB, Inverclyde HSCP, as well as the wider UK and other European countries, were scoped by title and abstract or summary, for relevance to the overall context of the evaluation and to the specific case study site. Selected documents were reviewed independently by two pairs of researchers to create a narrative in relation to the overall context and in relation to Inverclyde. The document review specific to the Inverclyde was also used to create a timeline for, and to obtain information about, key milestones in relevant developments. The interpretation was checked by the whole research team at regular intervals.

All interview data were similarly analysed independently by the two pairs of researchers using the evaluation questions as a framework. Each section was reviewed for themes in relation to different aspects of the evaluation that would inform the overall narrative. An iterative process of data interpretation was used which involved all four researchers. Finally, the overall narrative was further reviewed for fairness of interpretation by the senior investigators within the team. Key informants were given the opportunity to check the veracity of this report.

2.4 Ethical Approval

The study was approved by the University of Stirling Research and Ethics Committee on 5 December 2016.

3. Findings

The findings are based on a review of documentary evidence and interviews with key informants. For the purpose of attributing views and quotes in reporting the study findings, each key informant is coded as P (for participant) and assigned a unique numerical identifier.

A total of 204 documents were reviewed; 108 related to the wider context of the development of new models of primary care and 96 related to the local context of Inverclyde.

A total of 27 individual interviews were conducted by one of the researchers; 22 interviews were conducted during face-to-face meetings in a location convenient for the interviewee and 5 were conducted by telephone. If further information or clarification was required, interviewees were followed up by telephone and/or email. Ten key informants provided evidence relating to the national context for the development of new models of care and GP Clusters. They represented people involved in the development and implementation of policy relating to QI in primary care. Seventeen key informants provided evidence specific to the local context of Inverclyde. They represented HSCP managers and clinicians; Cluster Quality Leads (CQLs); Test of Change Workstream Leads/Facilitators; clinical practitioners and/or managers (pharmacy, physiotherapy, nursing), Third Sector representative; NHS GG&C Clinical Governance Facilitators; and an Information Technology (IT) Support Officer.

3.1 National Context

3.1.1 The development of the concept of GP Clusters

In 2014, the RCGP Scotland and Health Improvement Scotland (HIS) jointly mapped activities relating to quality in General Practice and, based on this, identified gaps and proposed a quality framework for General Practice in Scotland [17]. At this time, the proposed framework reflected developments in General Practice in Scotland including the formation of Locality Groups and HSCPs. It identified roles and responsibilities for individuals and organisations in developing QI tools and activities. The framework did not mention clusters but rather referred to *peer review and quality improvement and planning within localities* as described in the Public Bodies (Joint Working) (Scotland) Act 2014 [18].

In June 2015, the SG announced an additional £60 million investment in primary care, including the £20 million PCTF that would provide impetus to GPs to try new ways of working [19]. In September 2015, the First Minister announced that the intention of the test of the new models of primary care was to ensure “*that people are only admitted to hospital when they need to be*” [20].

During the 1990s and 2000s, ‘quality circles’ had been developed in several European countries [21]. These were voluntary collaborations by general practitioners that provided a way of focussing on quality and deciding on a common way forward through sharing evidence, knowledge and experience [21].

In Scotland, there was a move to use the quality circles model for QI but rename them 'clusters'. For example, the 2015 BMA 2015 manifesto states '*We have suggested the creation of GP Cluster groups working closely with Local Medical Committees within integration localities. IJBs should provide practical (administrative) support and sufficient financial assistance to allow at least one GP from every GP practice to participate*' [22]. RCGP Scotland also proposed at this time that GP Clusters offered a way for General Practices to collaborate effectively in QI [23].

Thus, GP Clusters came to be regarded as the locus for peer review of quality within General Practice by developing best practice through collaboration. Their overall aim would be to identify and improve patient outcomes, experience and service quality within local NHS and social care services. The concept of GP Cluster groups was described alongside a proposed change to the role of the GP. The BMA suggested that within this model, the role of the GP would be that of a senior clinical decision maker focusing on complex care, undifferentiated presentations, QI and leadership [24]. This related strongly to the RCGP concept of the 'expert medical generalist'. Later that year (October 2015), the SG announced that it would work with the BMA to dismantle the Quality and Outcomes Framework (QOF) on which the previous GMS contract had been based, and acknowledged that further investment in primary care will be required during the transitional period between the former and new quality frameworks [25].

In March 2016, at the request of SG, SSPC organised and held a one day workshop on 'Quality after QOF' [26]. This provided an opportunity for all stakeholders, with input from internationally, respected academics in primary care, to take stock of the present situation and develop plans for future QI in General Practice.

The National Clinical Strategy published in 2016 further emphasised the need to build capacity in primary care through collaborative multi-professional working with GP Practices, increasingly working collaboratively in clusters [4]. It was envisaged that such an approach would allow focus on prevention, advance care planning, supported self-management, prevention of unnecessary hospital admissions, and maximise usage of community-based assets. It echoed the suggestion made by the BMA in relation to the changing role of GPs. Whilst it did not make reference to GP Clusters, the Chief Medical Officer's annual report, 'Realistic Medicine', encouraged a reduction in variation in care, shared decision-making and personalised approach to care thus providing additional policy direction for the work of GP Clusters [27].

In October 2016, the BMA and SG outlined the principles of the Scottish approach to the new GMS contract [28]. These located General Practice within the wider context of health and social care integration, and focussed on the evolving role of the GP with the abolition of QOF and the introduction of a new approach to QI through the introduction of GP Clusters. It was thought that each GP Cluster might comprise 4 to 8 General Practices serving 20,000 to 40,000 patients. It is intended that GP Clusters will be supported in terms of QI methodology by NHS organisations such

as HIS, by other developments in primary care such as skill and role development, and by improved IT infrastructure [29].

One key informant thought that removing QOF not only required a new format for QI discussions but also that such discussions needed a broader focus than treatment of individuals:

...so it required a new venue for quality to be discussed and to be able to talk about system-wide and population health rather than just the individual treatment of [single] diseases which is what QOF tend to focus on.

P4

In January 2017, the SG published 'Improving Together: a national framework for quality and GP Clusters in Scotland' [30]. This outlined the principles of quality planning, improvement and control, and the support that would be available for the infrastructure and development of GP Clusters in Scotland.

Within a few months, as part of a pledge to increase overall annual funding for primary care by £500 million by 2021/22, the SG announced that £250 million of that investment will be in direct support of general practice [15].

3.1.2 Key informants' views on the pressures on General Practice and primary care

Key informants discussed the increasing demands on primary care from a broad population perspective (e.g. increase in the percentage of older people and people with multiple morbidities) in the face of a falling share of NHS spend in General Practice. They also described concern about the steady increase in the number of hospital consultants in comparison to GPs [P1].

This situation was considered to be exacerbated by workforce-related issues, particularly the current difficulties in recruiting and retaining GPs [P1, P3]. Some key informants believed that this is further compounded by the changing aspirations of new GPs, particularly a desire for flexible working pattern and better work-life balance. One key informant described how the 2004 GMS contract encouraged insular, Practice-centric, inward looking, and non-holistic or patient-centred ways of working [P5]. Elaborating on this, this key informant explained that one unforeseen impact of the 2004 GMS contract was that GPs could opt out of OOH work and work more flexibly with reduced number of sessions:

Although that GMS contract encouraged flexible working, it did not facilitate workforce planning. Further, the removal of the requirement to report workforce data made workforce planning in primary care challenging.

P5

3.1.3 The future of GP Clusters in the wider context of NHS Scotland

The idea of GP Clusters, as described above, developed through discussions between the SG and BMA as an alternative framework for QI in General Practice. The current proposed 2017 GMS contract is underpinned by changes to the GP role working within GP Clusters. The new vision,

embraces the multidisciplinary team with the GP as an expert generalist at its centre, focusing on complex care, undifferentiated presentations, QI and leadership [P1,P3]. At the time of writing, the SG and the BMA are still negotiating the final GMS contract for beyond 2017.

Recent reports and proposals suggest that GP Cluster working (as yet undefined beyond locality-based peer review of quality and collaboration on QI) has been accepted as a method for achieving continuous QI, including care closer to home. Key informants suggested that the recommendations made in key documents, including 'Pulling Together: transforming urgent care for the people of Scotland' set the context where greater collaborative working is considered as an important component of solutions in moving forward [31]. Indeed the list of recommendations in this report was seen to set a blueprint for collaborative approaches for the delivery of healthcare services by combining resources, aggregation of smaller units, and involving a wider multidisciplinary team:

Many of the recommendations in the Out-of-Hours review are applicable across primary care... a need to pull resources together, bigger units-aggregation, working together - which can lead to success in difficult times. We in General Practice either succeed together, or fall apart.

P5

The publication of 'Realistic Medicine' and the 'Clinical Strategy', with its emphasis on reducing variation in care, provided strategic drivers for the formation of GP Clusters. Additional drivers identified were the 'Integration Agenda' (Public Bodies, Joint working Scotland Act 2014) [18] and the need to develop integrated services and to fit in with Local Planning Agreements as well as 2020 workforce vision [32] [P2, P5, P1].

Key informants described how concurrent developments in the UK also influenced the development of GP Clusters as a possible new way of working. These included the implementation of Federations in England and Clusters in Wales; the RCGP/HIS Quality Framework for General Practice; and awareness of emerging evidence from the literature on Quality Circles in Europe [P2, P3].

Addressing high demand and QI work were generally seen as the main drivers to the tests of change and GP Clusters work. There was scepticism amongst some interviewees that GP Clusters would impact significantly on health inequalities, instead, wider social determinants were recognised as playing a more significant role than the restructuring of primary care services:

...you're not addressing the social determinants of health which are economics, social, educational, housing, all these things ...when we talk about health inequalities in primary care you can estimate how much inequality can be addressed by primary care or health services but it's actually quite small; it's all the other things that are important..

P2

Some key informants believed that the introduction of GP Clusters might not result in an increase in resources to more deprived areas. This was based on the belief that affluent areas could engage with GP Clusters work more readily, and consequently could absorb disproportionate resources [P15]. In contrast, others believed whilst enabling local GP Clusters to focus on local issues may result in variation in provision of care; this may reduce inequalities in health through shared knowledge and expertise [P14, P15].

The way GP Cluster work will be ultimately defined in the GMS contract was thought to affect the ability of GP Clusters to influence the health inequality agenda. Some postulated that if GP Clusters are given little control over resources or authority (i.e. they have a limited external role in influencing HSCP purchasing decisions), they would be less likely to adopt a population wide perspective. Whereas, if GP Clusters have a stronger external role, they were believed to be may be more likely to take a population wide approach [P5, P4, P13]. However, one key informant suggested that even if GP Clusters assumed only an internal role only, any work directed at minimising variation in accessing and using healthcare resources would inevitably impact on inequalities in [P5].

It was suggested that local circumstances would also influence the extent to which GP Clusters adopted an external role, and it was postulated that there was likely to be national variation. This view was related to the nature of prior working relationships and local leadership, and the willingness of both GP Practices and IJBs was considered pivotal [P2, P4, P7, P16, P21]. It was highlighted that in the absence of collaboration between GP Clusters and IJBs, there is a risk GP Clusters will develop work that is not consistent with the IJB's strategic direction [P8].

3.1.4. Summary of the national context

- Changes to the way GP Practices work are being made in the context of reduced funding in real-terms for more than a decade despite increased demand for GP consultations, and a crisis in recruiting and retaining a GP workforce.
- The proposed GMS contract beyond 2017, which is still under negotiation, is underpinned by changes to the GP role. It envisages GPs working in clusters to identify areas and models for service improvements for the local populations they serve. These models will involve GPs as the expert generalist at the centre of multi-disciplinary teams that will work together to provide services to release GP capacity. This will allow GPs to focus on complex care, undifferentiated presentations, QI and leadership. It is intended that GP Clusters will be supported in terms of QI methodology, by other developments in primary care such as skill and role development, and by improved IT infrastructure.
- Recent reports and proposals suggest that GP Cluster working is envisaged as a method for achieving continuous QI. The wider role of GP Clusters in terms of how they interact with the wider health system and have authority in relation to use of resources is, as yet, unclear. It was believed that these would depend both on the GP Clusters' capacity and ability to engage with IJBs, and with IJB's capacity and willingness to engage with the GP Clusters. These factors will impact on their ability to adopt a wider approach to population

health, and consequently their ability to address issues relating to health inequalities relating to accessing and using health resources.

3.2 Inverclyde

Inverclyde means "mouth of the Clyde". It is one of the smallest, in terms of area (29th) and population (28th), of the 32 Scottish local government council areas. It borders North Ayrshire and Renfrewshire, and is otherwise surrounded by the Firth of Clyde. It comprises the burghs of Greenock, Port Glasgow and Gourock. Its landward area is bordered by the Kelly, North and South Routen burns to the south west (separating Wemyss Bay and Skelmorlie, North Ayrshire), part of the River Gryfe and the Finlaystone Burn to the south-east. Outwith the two towns of Port Glasgow and Greenock, Inverclyde is largely a remote and rural area. The population of Inverclyde was recorded as 79,500 in 2015. The population of Inverclyde accounts for 1.5 per cent of the total population of Scotland.

Figure 1. Location of Inverclyde



(the area of Inverclyde is highlighted red)

In Inverclyde, 16.7% of the population are aged 16 to 29 years, which is slightly smaller than the Scottish average of 18.2%. Persons aged 60 years or older account for 26.3%, which is slightly higher than the Scottish average of 24.2%.¹

Since 1989, Inverclyde's total population has fallen overall, whilst the overall population for Scotland has risen. The number of births in Inverclyde decreased from 744 in 2014 to 711 in 2015, representing a 4.4% decrease, which is higher than the national average decline of 2.9%. During the same period, the number of deaths in Inverclyde increased from 937 to 1,031, representing a 10.0% increase. Over the period 2013 to 2015, the death rate in Inverclyde compared to Scotland as whole was lower (4.2 c.f. 10.4). Similar to Scotland as a whole, the main recorded cause of death in 2015 in Inverclyde was cancer, followed by circulatory disease.²

¹ Population statistics derived from figures taken from the National Records of Scotland (<https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/inverclyde-factsheet.pdf>)

² Birth and death statistics derived from figures taken from the National Records of Scotland (<https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/births-deaths-and-other-vital-events-preliminary-annual-figures/2014>)

In Inverclyde, male life expectancy at birth (75.4 years) is lower than female life expectancy (80.4 years); both lower than the Scottish average (77.1 years for males and 81.1 years for females). Male life expectancy at birth in Inverclyde is improving more rapidly than female life expectancy.

Between 2013 and 2015 less people entered Inverclyde (1,407 per year) than left (1,600 per year), representing a net outflow of 193 people per year. The largest group of in-migrant and out-migrants were aged 16 to 29 years old. The projected population for Inverclyde in 2039 is 100,697, representing a 26.7% increase compared to the population recorded in 2015. Similar to the rest of Scotland, the age group that is projected to increase the most in size in Inverclyde is the 75 years or older age group, whilst the population aged under 16 years is projected to decline by 16%.

Inverclyde contains areas of significant socio-economic deprivation as well as affluence [33]. Port Glasgow is an area of high deprivation, as is much of Greenock, with 40% of the population living in areas among the 15% most deprived in Scotland. West Greenock and Gourock are relatively affluent, and Kilmacolm is one of the wealthiest areas of Scotland.

Inverclyde is part of NHS GG&C, and has a history of integration initiatives, being an early adopter of integrated care through the former Inverclyde Community Health and Care Partnership (CHCP) in 2010 [34]. Since April 2016, its health and social care services have been managed by the Inverclyde HSCP. However, much of the work required to be undertaken by a HSCP had already been developed in Inverclyde through its previous CHCP arrangements. Building on these developments and in response to the Public Bodies (Joint Working) (Scotland) Act 2014 [18], the Inverclyde HSCP created three Wellbeing Localities; East Inverclyde, Central Inverclyde and West Inverclyde (Figure 2). The creation of these built on pre-existing initiatives that focussed service planning and improvement on local neighbourhoods and communities. The Wellbeing Localities also intend to focus planning and action on local areas and local people, with close engagement amongst all of those individuals, groups and organisations that have an interest in improving lives in that area. Planning and provision for each locality is overseen by the Inverclyde IJB.

Inverclyde is served by 71 GPs who work in 16 General Practices (Figure 2). Five of these GP Practices are 'Deep End' practices (a collaboration of General Practices serving the 100 most deprived GP Practices populations in Scotland, based on the proportion of patients on the practice list living in the most deprived 15% of Scottish datazones [35]). The other GP Practices serve areas with pockets of deprivation.

Figure 2. Approximate locations of the 16 Inverclyde GP Practices in relation to the 3 Inverclyde Wellbeing Localities



(approximate locations of the 16 Inverclyde GP Practices are depicted by white dots)

In 2015, the average GP Practice patient list size was 5143. The two rural Kilmacolm GP Practices serve populations with significant number of people who are elderly and people with learning disabilities.

Inverclyde has 15 care homes and 19 community pharmacies. All the GP Practices refer into one hospital, Inverclyde Royal in Greenock, which has had an intensive psychiatric care unit since 2012.

In September 2015, Inverclyde HSCP was approached to work in partnership with NHS GG&C, the SG and the BMA to pilot tests of new models of care in primary care. This initiative is called the Inverclyde New Ways of Working Pilot (locally abbreviated to New Ways of Working).

Summary

- Inverclyde is a small, discreet locality in NHS GG&C and is situated in the southwest of Scotland. In 2015, the recorded population was 79,500, representing 1.5 per cent of the total population of Scotland. Compared to the rest of Scotland, the population of Inverclyde is slightly older. Despite this, its death rate is lower than the national average. Similar to the rest of Scotland, the age group that is projected to increase the most in size in Inverclyde is the 75 years or older age group. Inverclyde contains areas of significant socio-economic deprivation as well as significant affluence.
- Health and social care services in Inverclyde are managed by its HSCP, which has built on the previous CHCP achievements in relation to the integration of these services. Three

Wellbeing Localities have been created and used to focus service planning and improvement for local neighbourhoods and communities. Planning and provision for each locality is overseen by the Inverclyde IJB.

- Inverclyde is served by a single District General Hospital with has an intensive psychiatric care unit, 15 care homes, 19 community pharmacies and 71 GPs, working across 16 GP Practices.
- In September 2015, Inverclyde HSCP was approached to work in partnership with NHS GG&C, the SG and the BMA to pilot tests of new models of primary care.

3.3 Inverclyde GP Clusters

Inverclyde was chosen to pilot GP Cluster working ahead of the roll out across Scotland. This decision appears to have been a pragmatic one, in that the New Ways of Working Pilot was already underway (section 3.2).

The extent to which, and how, GP Clusters will influence and shape health and social care services in their area through engagement with IJBs was explored with the key informants. Some believed that the formation of GP Clusters would provide a 'voice' for General Practice to influence decisions addressing population health needs [P3, P7]. However, others felt that the extent to which this external role of GP Clusters develops will depend on a number of external and internal factors:

...Practices have to want to allow the capacity to do that, and the system, the Integrated Joint Board or the localities, have to also have the capacity and willingness to work with them. It takes two to tango. A lot will depend on the extent to which Government makes it clear that IJBs have to prioritise engagement with General Practices.

P2

Thus, it was believed that this extrinsic role may not sufficiently develop unless there is a serious consideration given to central policy directives which encourage prioritising engagement by IJBs with GP Clusters.

It was believed that the opportunity to promote the extent to which GP Clusters adopt an outward looking approach would be lost if engagement of GP Clusters with IJBs remains on a voluntary basis and is not embedded within the GMS contract:

...at best we will be a critical friend to the IJBs ...what Clusters will be is what they are contracted to be and what they are paid to do. ...currently mainly to discuss internal quality decisions by GPs, but that's all that they will be contracted for Clusters, so they will have a very limited outlook.

P4

It was reported that there was a willingness for Inverclyde GP Clusters to engage externally, and that working relationships with the IJB and HSCP will develop with time. Mechanisms for GP Clusters to

communicate with HSCP were considered essential [P13, P15, P14] and it was recognised that this may require a shift in the ways GP perceive their role in relation to leadership rather service delivery [P13]:

I'd like to think that in the future, that as GPs learn to do this kind of role, because we've not really had this kind of opportunity before, so as we learn and develop leadership skills.

P13

3.3.1 Establishment of the Inverclyde GP Clusters

GP Cluster formation started in Inverclyde around June 2016 with initial identification of potential GP Clusters and CQLs. By November 2016, 4 GP Clusters and a CQL for each were confirmed. The GP Clusters were based on the three existing Wellbeing Localities (Figure 3):

- 1 in the Inverclyde West Wellbeing Locality – the Greenock West and Gourock Cluster, comprising 4 GP Practices, 2 of which share Station View Health Centre
- 1 in the Inverclyde Central Wellbeing Locality – the Greenock Cluster, comprising the 5 GP Practices in Greenock Health Centre
- 2 in the Inverclyde East Wellbeing Locality
 - the Port Glasgow Cluster, comprising 5 GP Practices, 4 of which share a Health Centre
 - the Kilmacolm Cluster, comprising 2 small rural GP Practices

Some expressed doubt about the future sustainability of the small Kilmacolm GP Cluster.

Figure 3. The 4 Inverclyde GP Clusters in relation to the 3 Inverclyde Wellbeing Localities



(approximate locations of the 16 Inverclyde GP Practices are depicted by white dots)

The HSCP was seen to have an important role in determining the composition of GP Practices in each Cluster, and in the recruitment of CQLs and defining their role. A job description had been developed

at NHS GG&C Board level for the CQL role, which included clinical governance responsibilities. However, the HSCP held the view that adequate clinical governance structures were already in place, consequently the job description for Inverclyde was revised so that the CQL role was based on communication rather than governance. Essentially, the CQL was envisaged to act as a link *'up and down'* between GP Practices and the HSCP. In this role, the CQL was expected to facilitate opportunities for GP Practices to explore new ideas, and share information and learning. This included ensuring that the Practice Quality Leads (PQLs), a designated GP in each GP Practice in the Cluster, were kept informed of relevant developments. There was recognition that the CQL role was likely to evolve over time.

3.3.2 Early progress of the Inverclyde GP Clusters

Given that the final configuration of GP Practices in each GP Cluster was confirmed one month after the start of this brief 6-month case study, it was only possible to loosely apply the SSPC Evaluation Framework. Consequently, this section provides a general overview of the early experience of the Inverclyde GP Clusters rather than systematically reporting the evidence relating to their underpinning theory of change; expected and actual impact; key learning; spread; and likely sustainability.

GP Practices were seen to still be early in the process of *"getting to know each other"* and in *"nappies"* in terms of working together. The time required to form *"trusting relationships"* was generally not underestimated as GP Cluster work was recognised to represent a major *"cultural change"* for GP Practices.

Discussion with the key informants mainly focused on issues relating to the intrinsic role of GP Clusters in terms of QI initiatives for their own patient populations rather than their extrinsic role in influencing broader public health-related decisions.

Projects were being carried out either by some GP Practices in a single GP Cluster with the intention of sharing learning with other members of their GP Cluster or by all GP Practices within a GP Cluster. These projects were described small scale in design by choice to avoid *"scaring people off"*, and mixed in focus in terms of clinical or system-related issues. In one GP Practice, Practice Nurses (PNs) were beginning a project to improve diabetes self-management, one GP Cluster had begun to look at a long-term issue around improving access to palliative care for patients with non-malignant conditions, and another GP Cluster was looking at appointment systems. Several key informants described the New Ways of Working Pilot projects, such as phlebotomy, as the main focus of the GP Cluster QI activity. Thus, the New Ways of Working Pilot was believed to have eased the introduction of GP Clusters in Inverclyde [P1, P6].

In terms of the extrinsic role of the GP Clusters, there was general acknowledgement that this was important. However, the Inverclyde IJB was not considered to be directly involved with GP Clusters

[P15], and there was a perception that there was not yet CGP Cluster representation at IJB meetings [P14].

Some key informant reported that data had only recently been provided that might serve as a basis on which to build QI initiatives. These included data from a local Week of Care Audit Report, which was undertaken by GP Practices. At the time of the interviews, data from the SG relating to the Transitional Quality Arrangements were still pending [36].

Specific support for GP Cluster Quality Improvement work in Inverclyde included aligning a HSCP Manager to each CQL as a point of contact for help and information. The HSCP also played a facilitating role in terms of organising CQL/ PQL meetings, and offered support and training to the GP Clusters. In addition, a Collaborative Leadership Programme had been developed with the aim of promoting better working across primary care and social care teams; the Local Medical Committee (LMC) had created an email '*support line*' for staff as a vehicle for seeking help and sharing ideas; and a newsletter had been published which highlighted a number of online QI tools and information sources. One key informant felt there were too many different resources, which sometimes suggested different things, and that it would be more useful to have some kind of '*one-stop-shop*' [P13].

Barriers to GP Cluster Quality Improvement work in Inverclyde related to lack of time, lack of robust data, and inadequate project management support. In relation to lack of time, it had been anticipated that the elimination of QOF-related work would free up time to dedicate to QI work. However, there was a general perception that any released time had been quickly filled by other activities; not least the number of new meetings GPs were being asked to attend that related to GP Clusters and the New Ways of Working Pilot. Although, funds had been made available to employ locums to cover sessions for CQLs and PQLs, the current shortage of locums limited their ability of GPs to attend meetings. It was suggested that those who worked part time (cited as generally women) attended meetings '*in their own time*' so that there was no impact on their clinical input to their GP Practice. At the time of writing, it was suggested that the future frequency of CQL/PQL meetings was likely to be reduced. In relation to lack of robust data, it was generally accepted that the current GP Practice electronic information systems were inadequate in terms of capturing data in a routine and systematic way to inform QI work. Recording the activities and outputs of new projects aimed at reducing GP workload generally relied on paper systems, and the impact of any released GP capacity could not readily be gleaned from existing Practice systems. In relation to inadequate project management support, and allied to both lack of time and information systems, the QI work of GP Clusters was reported to have increased the administrative workload in Practices. One CQL had requested administrative support from the HSCP to help arrange and keep minutes of meetings. While an agreement had been reached for this support to be provided, the HSCP noted this would be challenge as there had been reductions in its own administration capacity.

3.3.3 Summary of Inverclyde GP Clusters

- The decision on the composition of GP Practices in each Inverclyde GP Cluster was considered to have been relatively easy to achieve as these were based on location within the 3 pre-existing geographical Wellbeing Localities that were already used for planning services. However, one GP Cluster comprised only 2 GP Practices and there was some concern about its long-term sustainability.
- The role of the Inverclyde CQLs focussed on communication rather than clinical governance as Inverclyde HSCP believes that existing arrangement for the latter are already in place. However, there was recognition that the CQL role may evolve over time.
- Working on QI in GP Clusters represented a major cultural change for their member GP Practices, and the time taken to form trusting relationships was not under-estimated.
- The input of the HSCP was seen to be important in getting the GP Clusters formed and functioning. However, a need to centralise the information available from various sources was considered important in terms of facilitating ease of access and ensuring consistency.
- There was widespread agreement that the 'extrinsic' role of the GP Clusters was crucial, which would require introducing a formal mechanism for GP Clusters to engage with the IJB. In the early days of the Inverclyde Clusters, work concentrated on their 'intrinsic' role in relation to QI initiatives.
- The early QI initiatives undertaken by individual GP Practices and GP Clusters were deliberately designed as small scale projects in order to learn from the processes involved before embarking on larger scale projects. These focused on a mix of clinical and system related issues. The main challenge associated with this work related to the inability of existing information systems to capture data systematically to measure impact and inform future developments.
- GP Cluster work posed increased clinical and administrative demand on GP Practices, which was not considered offset by the abolition of QOF-related activities. Addressing this remains a challenge for both the HSCP and GP Practices.

3.4 The Inverclyde New Ways of Working Pilot

The New Ways of Working Pilot was introduced several months before Inverclyde was approached to pilot GP Cluster working. At the start of the New Ways of Working Pilot, there was a perception that some GPs were cautious and uncertain of what was expected of them and how it related to the planned, new GMS contract [P7, P3, P4, P8, P1, P10, P9, P16]. Some described this as cynicism, suspicion or resistance to change [P13,P14,P15,P16]:

there was the usual level of maybe cynicism and suspicion to begin with, you know having been dictated to by QOF for so long, there was a bit of a feeling of surely they can't possibly be letting us do this, this is absolutely the right thing to be doing, but the suspicion was understandable.

P13

For some, there was some concern that offsetting some GP work to others would lead to a more fragmented and expensive service:

... if you fragment those [tasks] up into different disciplines that's actually more costly than one individual wearing multiple hats. ... what we need is more generalists, both in acute and in the community, not less generalists.

P1

By contrast, others embraced the New Ways of Working Pilot as they viewed it as a proactive vehicle for reducing GP workload and addressing the associated workforce recruitment and retention issues:

they are trying to create head space, ...they want to create better service for patients. Reduce pressure on GPs, want to make the job more attractive so that they can retain what they've got and also attract more people... It's [about] extending the multiple disciplinary team and looking at new ways of working and who else can provide service...

P5

It was reported that trust, support and greater understanding amongst GPs for the work was gradually developed through facilitated engagement events and discussions. Strong leadership, facilitation and encouragement by the HSCP was considered pivotal to building support amongst GPs:

So they went from a point of hostility to an understanding that they are going to get funding and support with variety of initiatives, ...a bit of confusion [at the] beginning as to what that meant but with some QI [Quality Improvement] knowledge they matured. Now developed a few pieces of work with QI methodology embedded.

P7

The new models of care piloted in Inverclyde were GP Practice-based rather than community orientated, and were designed to reduce GP workload rather than target health inequalities [P7]. Nevertheless, it was argued that offsetting some work to other health and social care professionals would lead to improved access to primary care services thus indirectly impact inequalities [P6, P7, P10, P18]. It was also suggested that services might become more accessible to less affluent patients if the new models of care simplified the 'patient journey' [P20].

Key informants suggested a number of reasons why Inverclyde was selected to pilot new models of care. Inverclyde stated that it was 'ahead of the game' in terms of integrating health and social care services [37]. Relationships were described as good between acute and community health services, and between health services and social work, education and council services:

Well certainly from my experience, Inverclyde's quite creative and forward thinking... the Advisory Network that's been developed in Inverclyde, ...it's quite unique. If you go to other areas in Scotland they'll say "oh, we haven't got that in our area" and "can we have a "Your Voice" in our area?" And the Scottish Health Council, we worked in partnership

with them around, developing the guidance around Public Partnership Forums in each of the areas feeding into the Integrated Joint Boards, so they saw that as a good practice models and their recommendations going forward is very much based on the model here in Inverclyde... there's been lots of pockets of very good partnership working in Inverclyde, you know, particularly in relation to mental health services and older peoples' services.

P26

Several key informants referred to previous or existing experience of GP Practice involvement in developing and piloting tests of change in Inverclyde. They cited work around care homes and primary care/secondary care interface relating to frail elderly, orthopaedics, laboratory testing and pharmacy. Both the work itself and the relationships established within this work were considered good foundations on which to build the New Ways of Working Pilot:

I think those relationships but I think also the GPs had already had opportunity to reflect on ... on things ... on practice, both kind of within their own ... their own Practice and also ... on the sort of wider geographical basis ... so, looking at ... you know ... for example, if some GP Practices sent more people into A&E with exacerbations of COPD, was that because of the ... the actual clinical practice, or was that because they had more people with COPD and so, all those kinds of things had been explored, so we're now able to kind of build on the... improving the practice, the clinical practice etc.

P23

Some characteristics of Inverclyde were considered advantageous. Inverclyde is a discrete geographical area with a mixed population similar to other GP Practices across Scotland in terms of socio-economic deprivation [P3, P8, P9, P17, P20]. It is also facing similar challenges to elsewhere in Scotland relating to GP recruitment and retention [P19], and increase demand on health care resources [P20]. In terms of implementing change, Inverclyde was considered advantageous as it is served by a small number of GP Practices [P3, P10, P1, P13, P14, P17, P19] and has the simplicity of having a single secondary care provider [P21, P10, P1, P16].

It was generally accepted that the success of the New Ways of Working relied on strong managerial support and governance arrangements, and an approach that was underpinned by the values of inclusiveness, engagement and collaboration:

'The key is that they have a good structure around it, and the approach they [HSCP] took helped - engaging , inclusive. In Inverclyde, it's a cohesive team, ... work well together, engagement and support from GPs , ... they seemed to form into grouping easily. But this has been managed , it hasn't just happened, it has been facilitated well, they are looking at collaborative leadership, its wider than just the tests... It has been organisedthey had health and social care people involved, they have broadened it to social care ... looking at all the system, involving others in their thinking.'

P6

Summary

- It was believed that Inverclyde had been selected for the New Ways of Working Pilot for a number of reasons including its scale in terms of geography and number of healthcare providers; similarities to the general Scottish population and GP Practices across Scotland in terms of socio-economic deprivation; well established health and social care integration structures; and previous experience of piloting similar projects.
- The success of the News Ways of Working Pilot was considered to rely on strong managerial, support and governance arrangements, and an approach that was underpinned by the values of inclusiveness, engagement and collaboration.

3.5 Infrastructure Supporting the Inverclyde New Ways of Working Pilot

For the period 2015/2017, Inverclyde was awarded funding in the region of £385,000 for the New Ways of Working Pilot. It was recognised that this level of support exceeded the amount that would have been secured solely on a population basis. Whilst, the funding received was on a non-recurring basis, it was hoped that Inverclyde would be able to demonstrate benefits, which, in turn, would demonstrate the need for continued funding.

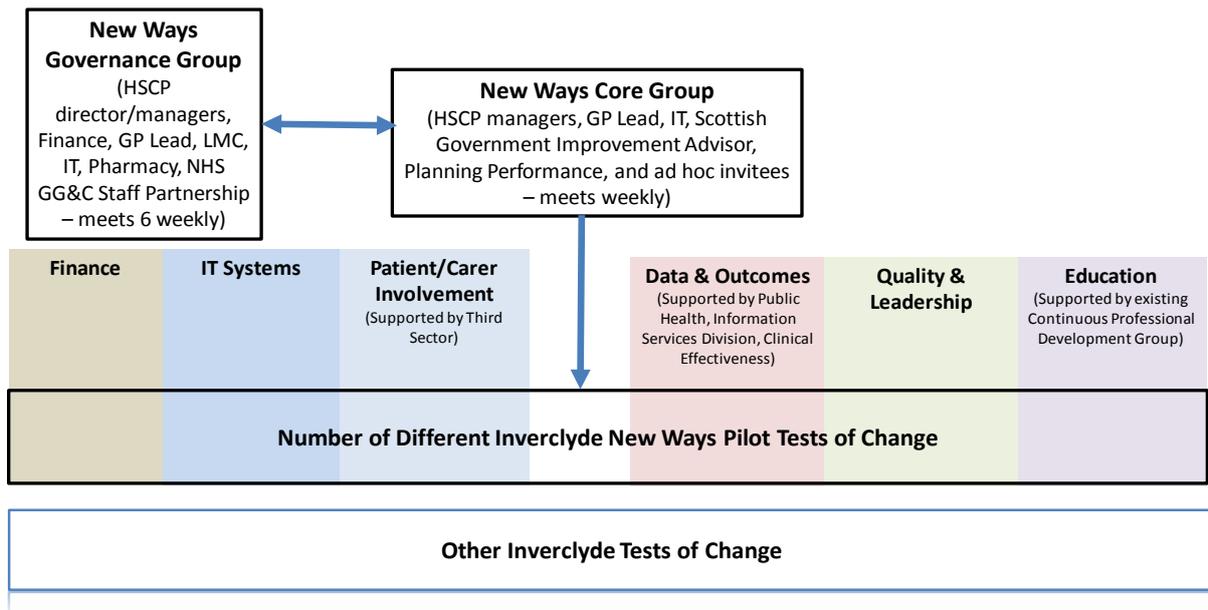
Initial support was provided by two SG Improvement Advisors; one was thought to have a data support role and the other a more generic role in terms of feeding in the SG perspective by attending meetings and being a *communication link* [P13, P14]. Very early in the pilot, support from the SG Improvement Advisor with the data support role was discontinued, and, overtime, support from the remaining SG Improvement Advisor was tapered off. It was suggested by some that the tapering off of this support was a deliberate strategy whereby it was provided during some initial engagement activities, but gradually withdrawn as work streams around particular tests of change emerged and local ownership developed [P6, P14, P15]. For some, the added value of the support provided was not always clear:

‘..it’s not always apparent how much value is being added... I think it is important to have that [external advice] ...in terms of thinking about ... how we share some of the messages from here and how we share some of the learning, so I think it is important to have external people feeding in, but it’s how we best utilise them and make sure that they’re part of the, part of the project as well. And it’s hard, I think it’s hard when people are coming from the outside and dipping in and out and a lot of the time we are working together, very closely... we recognise it’s not always easy’.

P15

It was generally accepted that the work around the New Ways of Working Pilot was driven by the Inverclyde HCSP, which provided overall strategic direction and project management support to the work programme [P15, P18]. Additional support was provided by NHS GG&C from public health and clinical effectiveness, NHS National Services Scotland Information Services Division (ISD). Inverclyde also invested in external training in QI. Figure 4 illustrates the infrastructure established in Inverclyde to support the New Ways of Working Pilot.

Figure 4. Infrastructure established to support the Inverclyde New Ways of Working Pilot



The **New Ways of Working Pilot Core Group** was set up to provide strategic direction and oversee the management of the New Ways of Working Pilot and the different work streams associated with each new test of change. Its membership included HSCP managers, a GP Lead, an ISD Data Analyst, and a SG Improvement Advisor. Wider representation was provided by others who were invited to attend meetings of the Core Group depending on the agenda to be discussed. This group met weekly.

The **New Ways of Working Pilot Governance Group** was set up to oversee the governance arrangements of the New Ways of Working Pilot and its associated tests of change projects. Its members included HSCP directors and managers, GP Lead, and representatives from the LMC and from NHS GG&C departments of Finance, IT, Pharmacy and Staff Partnership. This group met 6 weekly.

Crosscutting support was provided to each test of change in relation to Finance, IT Systems, Patient/Carer Involvement, Data and Outcomes, Quality and Leadership, and Education.

The scale of internal support required for the New Ways of Working Pilot was reported to be challenging [P14, P15]. The workload associated with the pilot was far greater than first envisaged [P13]. As only a relatively small amount of the New Ways Project funding had been invested in management, most of the associated activity was absorbed within existing job roles and responsibilities [P15]. As Inverclyde HSCP is relatively small with a number of part-time staff, unplanned staff absence posed challenges:

“...I think it has been, it has been all consuming and I suppose that in terms of the, the scale of it that we have put a small amount of money from management into it but most of it has been absorbed within peoples’ jobs... It has been quite a significant amount of

work to take on and try and maintain that momentum and keep it going... it has been really challenging..."

P15

Alongside the New Ways of Working Pilot developments, Inverclyde HSCP has been involved in a number of additional tests of changes including increasing the role of community pharmacists and enhancing services for older people.

In relation to pharmacy, Inverclyde is taking part in a national pilot of electronic prescribing by independent pharmacist prescribers, which is closely aligned to the Prescription for Excellence test of change of pharmacists and pharmacy technicians based in GP Practices. This additional support is intended to shift the balance of pharmacy workload from GPs to pharmacists. The support provided depends on the need of the individual GP Practice. Examples include pharmacists assuming responsibility for patient prescriptions following discharge from hospital, medication-related clinics, medication advice and reviews of patients prescribed medications. A further national NHS pilot extending a Minor Ailment Service in community pharmacists to all patients (Pharmacy First) started in Inverclyde in January 2017.

In relation to older people, Inverclyde is developing services that aim to improve how older people are assessed and supported in acute and the community settings. This has involved the introduction of a Comprehensive Geriatric Assessment in Inverclyde Royal Hospital, and consideration of establishing geriatrician support in the community. The overall aim of this is to provide patients access to the right person/support at the right time in the right place.

Summary and key learning

- The level of funding received by Inverclyde for the New Ways of Working Pilot was recognised in excess of what would have been secured solely on a population basis.
- Additional support provided by SG Improvement Advisors was considered important in terms of facilitating communication and feedback, but there may be lessons to be learned in relation to how best this resource could be utilised and incorporated in developments.
- The infrastructure established for the New Ways of Working Pilot comprised a **Core Group** to provide strategic direction and oversee the management, and a **Governance Group** to provide overarching governance. **Crosscutting support** was provided to each test of change in relation to Finance, IT Systems, Patient/Carer Involvement, Data and Outcomes, QI and Leadership, and Education.
- The level of internal support required for the New Ways of Working Pilot presented challenges for Inverclyde HSCP, which had absorbed most of the associated activity within existing job roles and responsibilities.
- The Inverclyde New Ways of Working Pilot tests of change were taking place alongside other tests of change relating to extending the role of pharmacists and enhancing services for older people.

3.6 Implementation of the Inverclyde New Ways of Working Pilot

By January 2016, following initial engagement sessions led by Inverclyde HSCP, NHS GG&C, the SG and the BMA, all 16 Inverclyde GP Practices had signed up to participate in the pilot. The first engagement meeting focused on GPs. At this time, the event concentrated on identifying areas of concern and priorities for developmental work [P13,P16,P15].

The event was designed around three themes within which two workshops were formed:

Care Groups	1. Older people across all services
	2. Mental health
Professional Staff Group	3. Roles within the wider primary care team
	4. Pharmacy
Ways of Working and Process	5. Home Visits (GP consultations undertaken in the patient's home)
	6. Access to services

The workshop participants explored related concerns, and shared information on relevant initiatives elsewhere and evidence from the literature. For example in relation to Home Visits, the volume, geographical spread and current management of home visits was discussed, and in relation to this, the potential role of paramedics or ANPs was explored.

Feedback from this event clarified broad areas for the Inverclyde New Ways of Working Pilot:

- **Communication** - this related to inconsistent awareness of the full range of, and referral systems for, available local services.
- **Operational** - this related to systems that caused delays and inefficiencies in day-to-day working.
- **Transformational**- this related to the potential realignment of activity that could release GP capacity.

Thereafter, specific work streams were developed for six individual tests of change (section 3.7). Different GPs were identified to lead each work stream with the support from a HSCP Project Manager/Facilitator.

During this time, evidence emerged that some of the wider GP Practice team felt excluded, and that some, particularly PNs, had concerns relating to their future job security or future role within a reconfigured service:

the most unsettled .. probably Practice Nurses ... partly because a lot of it [their work] was bedded down ... and there has been massive changes ... I think there's ... was concerns about, initially, the Practice Nurses, because some were being ... laid-off ... and that's stopped ... so I think the Practice Nurses have had a degree of reassurance that that's not going to be the trend

P16

Consequently, and as understanding of purpose developed, the HSCP encouraged involvement of the extended multidisciplinary team [P18]. In February 2016, a further event was organised and included PMs, PNs, District Nurses (DNs), Allied Health Professionals (AHPs), and pharmacy, public, third sector and housing representatives. The overall aim of this event was to maximise the opportunity for GPs and other relevant practitioners and organisations to influence and shape the ideas around the tests of change [P13].

There was early recognition that careful monitoring was required to assess the impact of change, in particular in relation to the shift of activity across services and between professionals. Whilst, Inverclyde was not unique in testing models of change, the scale of change involved at the time of the start of the New Ways of Working Pilot, across professions and involving all GP Practices, had not replicated elsewhere in Scotland.

To assist in this monitoring, two ‘*Week of Care*’ audits were carried out by all 16 GP Practices; the first in September 2016 and the second in December 2016. During a single week in each of these periods, data were recorded by all GP Practices on total number of consultations. In relation to each consultation, information was recorded on its type (i.e. whether it was by a GP, PN or Health Care Assistant (HCA) and whether it was face-to-face in GP premises, home visit in a patient’s residence or telephone conversation); presenting problem; and whether or not the patient could have been seen by another care provider and, if so, by whom. At the time of writing, a summary of the results relating to all GP Practice activity was available for only the first of these audits. This showed that there were 6531 consultations across the 16 Inverclyde GP Practices during the monitored week, which represented 84.1 per 1000 patients served.

Considerable variation was reported between GP Practices whereby consultation rates ranged from 46.7 to 104.8 per 1,000 patients. Almost three-quarters of the consultations (73.9%) were with a GP, around one-fifth (20.4%) with a PN, and the remainder (5.7%) with a HCA (Table 1).

Table 1. Number and mode of consultation in relation to healthcare provider during the Inverclyde Week of Care Audit period in September 2016

Type of Consultation	Number (%) of Consultations with			
	GP	PN	HCA	Total
Surgery	3893 (72.5)	1113 (20.7)	367 (6.8%)	5373 (82.3)
Telephone	702 (10.7)	215 (23.4)	0	917 (14%)
Home Visit	231 (3.5)	4 (1.7)	6 (2.5)	241 (3.7)
ALL	4826 (73.9)	1332 (20.4)	373 (5.7)	6531 (100)

Around four-fifths of all consultations (82%) occurred in GP Premises, around one in seven (4%) were telephone consultations and the remainder (4%) were consultation in the patient’s home. There was initially some concern that the number of home visits had been underreported as three GP Practices reported that between 7-8% of their consultations were home visits. However, it was

reported that the subsequent audit during December 2016 showed that home visits still accounted for around 4% of GP consultations (although, at the time of writing, the data on which this statement was based were incomplete as activity reports from 3 GP Practices were outstanding).

In relation to GP consultations, around 75% were reported to relate to acute problems and long-term conditions, and approximately 5% to mental health issues. The main reason for the remaining 20% of consultations related to blood tests, minor ailments, immunisations, injections or vaccinations. At the time of this first audit, one GP Practice was participating in a test of change concerning phlebotomy and, consequently, reported few consultations involving bloods tests.

GPs reported that around one-fifth of their consultations could have been carried out by a different healthcare provider. These represented 17% of face-to-face consultations in the surgery, 48% of telephone consultations and 16% of home visits. Interestingly, the three GP Practices that reported that home visits accounted for 7-8% of their consultations also reported that a higher proportion of these (20%) could have been performed by someone else. One GP Practice recorded that all home visits carried out by the GP could have been performed by another care provider. In terms of releasing GP resources, it was estimated that across Inverclyde, nearly nine and a half hours of GP home visit consultations per week could be performed by a different healthcare professional.

The ANP was the most frequently cited alternative care provider for consultations although there was slight variation across different types of consultation (Table 2).

Table 2. Most frequently cited alternative care provider identified for GP consultations rated as being able to be carried out by someone else

Ranking of Most Commonly Cited Alternative Care Provider	Type of Consultation		
	Face-to-Face in GP Surgery	Telephone	Home Visit
1	Advanced Nurse Practitioner	Advanced Nurse Practitioner	District Nurse
2	Practice Nurse	Practice Nurse	Advanced Nurse Practitioner
3	Healthcare Support Worker	Administrator	Practice Pharmacist

Summary and key learning

- Initial engagement activities for the New Ways of Working Pilot were GP focused. However, amid concerns amongst other care professionals, engagement events and activities were extended to the wider multidisciplinary team. Early engagement of the wider multidisciplinary team as early as possible was considered an important lesson learned.
- By Spring 2016, work streams and Workstream Leads were established for 6 tests of change as part of the New Ways of Working Pilot.

- To assist local evaluation of the tests of change, two ‘Week of Care’ audits of consultation activity were carried out by all 16 Inverclyde GP Practices.

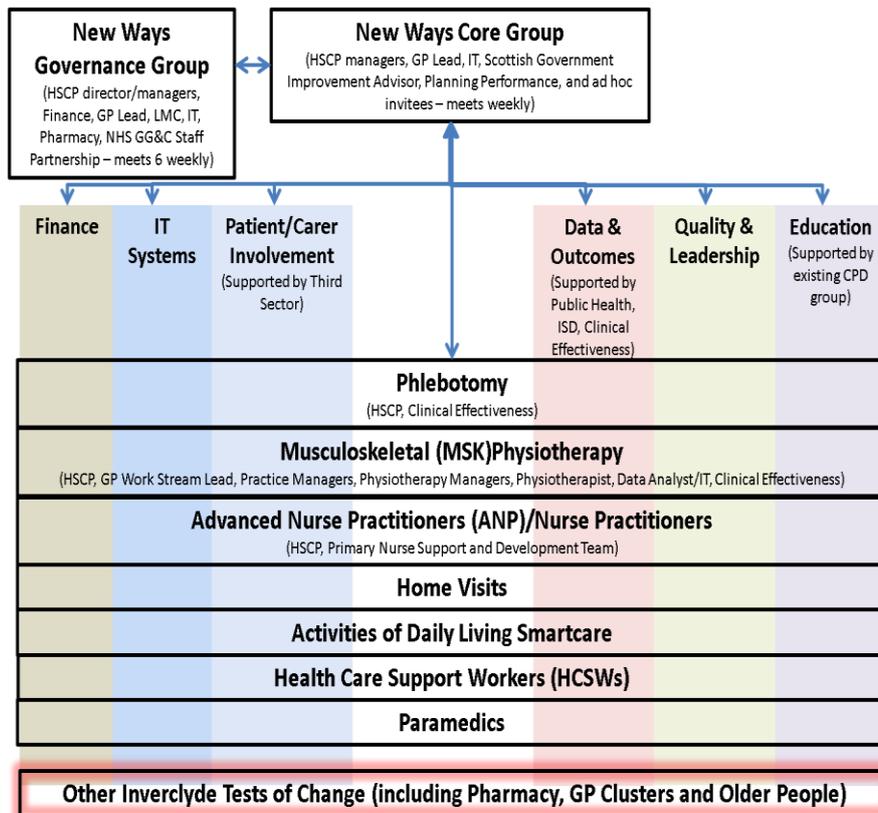
3.7 Inverclyde New Ways of Working Pilot Tests of Change

The 6 tests of change that emerged from the early engagement meeting for the New Ways of Working Pilot related to:

- Phlebotomy
- Musculoskeletal (MSK) Physiotherapy
- Advanced Nurse Practitioners (ANP)
- Home Visits (GP consultations in patients’ residence)
- Activities of DAILY Living (ADL) Smartcare
- Health Care Support Workers (HCSWs)

Each of these operate within the governance and management arrangements for the New Ways of Working Pilot and are supported by the 5 complementary crosscutting services concerning Finance, IT Systems, Patient and Carer Involvement, Data and Outcomes, Quality and Leadership, and Education (Figure 5).

Figure 5. Inverclyde New Way of Working Pilot tests of change and infrastructure



The choice of the tests of change was driven by GPs’ ideas and perceptions of need. Key informants’ views on the extent to which the chosen tests of change would address health

inequalities were often prefaced with uncertainty, but, on further reflection, some expressed belief that they would:

That's difficult...closer working itself will help in the overall attempt to reduce health inequalities... if time is freed up for particular professionals to spend more time with people... a more appropriate amount of time to address all the issues which contribute to health inequalities...

P27

yeah I think so, I think there's a real opportunity there, a real buzz about the whole New Ways stuff, people are really quite excited about it ...and partners across the board, you know the voluntary sector, the health services, the social care services, and GPs, and pharmacists as well, and obviously they're taking on a much bigger role... you know the focus... the New Ways of Working, and...I think the general feeling is it's a good model. You know people do come to us and say ... they can't get appointment with GPs ... you have to wait for days, and you're in a queue, and all of that, so a lot of the work was around engaging with patients to say, you know, "How can we fix this?" It's about, we'll work together to fix it, it's not about...no one person...no one agency has all the answers

P26

Some were hopeful that the developments would have a positive impact for a number of reasons, including increased resources and simplifying service access:

... it's difficult .. the New Ways of Work is not about health inequalities per se ... it's more about trying to get us capacity ... to give us a bit of space to look at quality improvement ... but Inverclyde's a pretty ... an area of high deprivation, so if you've got increased resources going in to an area like that, then ... I think ... it will incorporate inequalities work within it ... I suppose indirectly... that it's not been, I think, an explicit focus of the work

P16

Em, I would hope so. I would hope so by giving, having ready access to the right person without having to make a complicated patient journey.... can only be of benefit and particularly for those who don't have the ability to easily navigate health services then, which is maybe linked to, can be linked to, deprivation areas as well. I think that people in more affluent areas are often very good at knowing how to access services then, so, em, by being able to provide services at GP level which is ... sort of readily available service for everybody then I would hope that we are able to ensure, that we ensure, that we're offering a more equitable service for everybody then.

P20

Other key informants expressed the view that the service developments would have no impact on reducing health inequalities or that they would increase health inequalities:

... I'm not sure ... I don't ... think health inequalities ... I think it's too much of a social problem ... I think it'll help GPs work better within health inequalities, but I don't think it's enough ... I think it need to be education, it needs to be housing and it needs to be more social work.

P21

For one key informant, the reason for this was that a paternalistic approach had been adopted in determining patient needs and approaches to address these, and consequently the choice and adoption of the different models of care were driven by the attitudes and values of professionals:

I don't know that it will because I think we've not even addressed values and attitudes of professionals, em and their understanding of what, of what health inequality is, and how we can influence that through all your social, em, elements. So people in Gourrock don't have any financial issues? Of course, they don't – NOT! Em, it's like people in big houses don't have any financial issues. It's absolutely, em, it's about our judgements and our understanding, em the bigger social implications and social inequalities. So, I don't know that it will ... I think that all we're doing is empowering people in terms of GPs to make decisions about their patients of whom has anybody asked them – the patients what they want? I haven't seen any evidence of that. I haven't... It might well have happened but you know, GPs and Practices are very good and quick at saying we know what's best for our patients but my answer to that, my question to that is well, have you asked them? And that is the only thing that's going to affect social inequalities or health inequalities is being able to provide the service that your patients need

P18

One key informant feared that the new service developments would increase health inequalities because there was a risk that developments may be driven by the most articulate patients:

... and I do fear ... so they want ... services .. that's what a lot of our patients want ... but ... resource-wise ... if you can say [what you have now]..that's perfectly adequate ... rather than it being ... weighted more towards those that can shout the loudest, or those that can organise themselves

P25

This key informant believed that the project leads for the New Ways of Working Pilot all worked in affluent GP Practices, which increased the risk of the choice and implementation of new services, and consequently investment of resources, being biased in favour the more affluent GP Practices and their patients:

I fear the worst ... that ... actually the Cluster working will widen health inequalities ... it has real potential to work with the populations that are not accessing health care in the right ways ... there are meaty things, that a group of doctors could get together...[but] look at the New Ways and those that are Project Leads – and they're all from the affluent Practices if you look at ... what they have chosen as their topics to ... it's all about them ... it is

about getting resource in ... It's not about using the most vulnerable ... I think ... [example of a test of change in an affluent Practice]..., I don't think that could be rolled out to anything other than a very affluent Practice

P25

There was not much evidence of patients or general public engagement in the choice of the new models of care:

We had some engagement sessions with primary care generally, not just the GPs but Practice Nurses, Practice Managers and others, as well as a wee bit of engagement with patients and carers...

P27

However, the importance of engagement was not under estimated:

I feel strongly that we need to get the public more involved in how primary care services are delivered, and you know get their ideas... and I think you know with their rights, comes, comes their responsibilities, and I think if we don't involve them in setting up primary care that they don't then take their responsibilities as seriously, and I don't think they've been involved at all really in the New Ways of Working ... but I keep asking how have you involved patients and I get answers that I don't really understand, answers that I think actually they haven't been involved... I think there needed to be something... but it makes sense that if you involve., people that use the service, then ... you get their ideas as well, and you get their buy-in too

P13

This key informant, however, did describe an attempt that one GP Practice had adopted to engage patients:

... Practice, as part of the New Ways of Working, [tried] to involve patients but found it very very hard to engage patients [were written, a really nice... good letter, that was sort of checked with patient representation and what have you, ...and follow up phone calls ...I think it has to be done at a greater level to be honest with you, em and maybe being in a deprived area didn't help that because there's less engagement, a bit more suspicion about services, it was more suspicion about well why do they want to ask us because you know... they're not used to being asked.. so I think that needs to be... I don't think that can be put down to kind of Practice level, patient engagement

P13

There was more evidence that a structure had been put in place that would give patients and the public a better opportunity to influence how the new models of care evolved, largely through the representation and activities of the Your Voice, Inverclyde Community Care Forum. This not-for-profit organisation was set up in 1992 and has evolved and developed into a network of around 10%

of the population that aims to ensure that the widest range of local people have the opportunity to be involved in community engagement and consultation processes (section 3.9).

Each test of change was adopted by one or more of the 16 Inverclyde GP Practices (Figure 6). Participation was voluntary and aligned to areas of interest of the individual GP Practices [P14, P15]. As the New Ways of Working Pilot preceded the introduction of GP Clusters, individual tests of change were not always aligned to the individual GP Clusters. Consequently, GP Practices within an individual GP Cluster were participating in different tests of change.

Figure 6. Test of change adopted by individual GP Practices in relation to GP Clusters

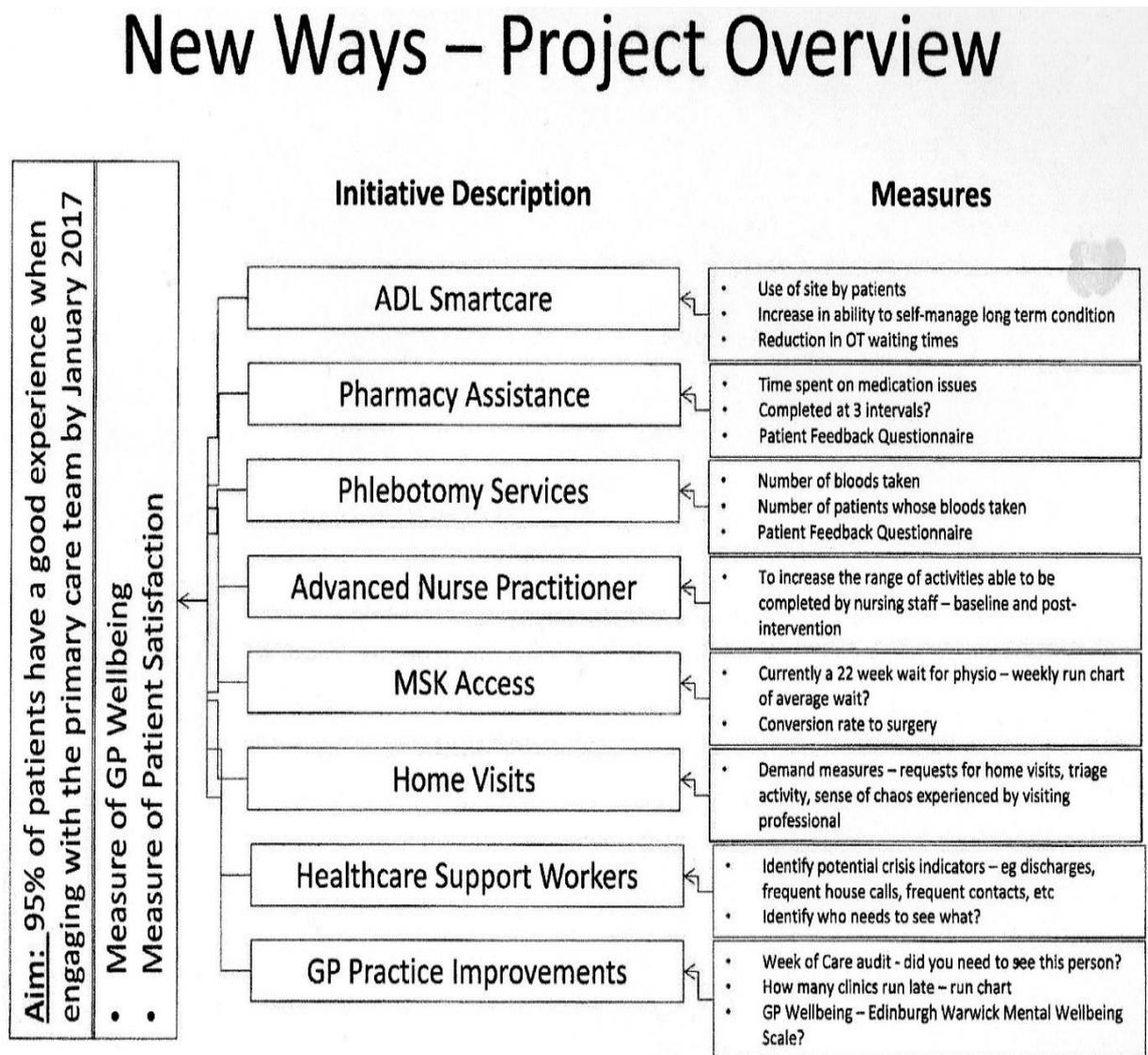
GP CLUSTER	GP PRACTICE	Number of:		TEST OF CHANGE							
		GPs	Patients								
Kilmalcolm	<i>Dorema Surgery</i>	5	3006	●			●			●	
	<i>The New Surgery</i>	3	3421	●						●	
Port Glasgow	<i>Dr Bogans & MacDonald</i>	2	1889	●		●					●
	<i>Dr Macdonald & Partners</i>	3	3635	●		●					●
	<i>Dr McCartney & Partners</i>	3	3572	●		●					●
	<i>Dr Wilkie & Partners</i>	4	3798	●		●					●
	<i>Port Glasgow Health Centre</i>	6	4679	●		●					
Greenock (planned)	<i>Drs Foster & Crawford</i>	2	3181	●							
	<i>Dr Kohlhagen & Partners</i>	4	5919	●							
	<i>Drs Hogan, Allen & Quinn</i>	3	2884	●							●
	<i>Orangefield Practice</i>	7	7367	●				●	●		
	<i>Regent Medical Practice</i>	6	9389	●		●					
Greenock West and Gourock (planned)	<i>Mount Pleasant Practice</i>	6	6756	●	●	●					
	<i>Roxburgh Practice</i>	3	5563	●	●						
	<i>Ardgowan Medical Practice</i>	6	9079	●	●						
	<i>Gourock Medical Practice</i>	5	7786	●	●						

Key to Figure 6

Pharmacy	Activities of Daily Living Smartcare	Advanced Nurse Practitioner	Health Care Support Worker	Home Visits Telephone Triage	Musculo-skeletal Physiotherapy	Home Visits Paramedics	Phlebotomy
●	●	●	●	●	●	●	●

A driver diagram was developed by the New Ways of Working Pilot Core Group with support from NHS GG&C Clinical Effectiveness detailing the overall aim of the Inverclyde tests of change and the measures that could be used to assess the impact of each (Figure 7).

Figure 7. Overall aim of the Inverclyde New Ways of Working Pilot and outcome measures for each test of change

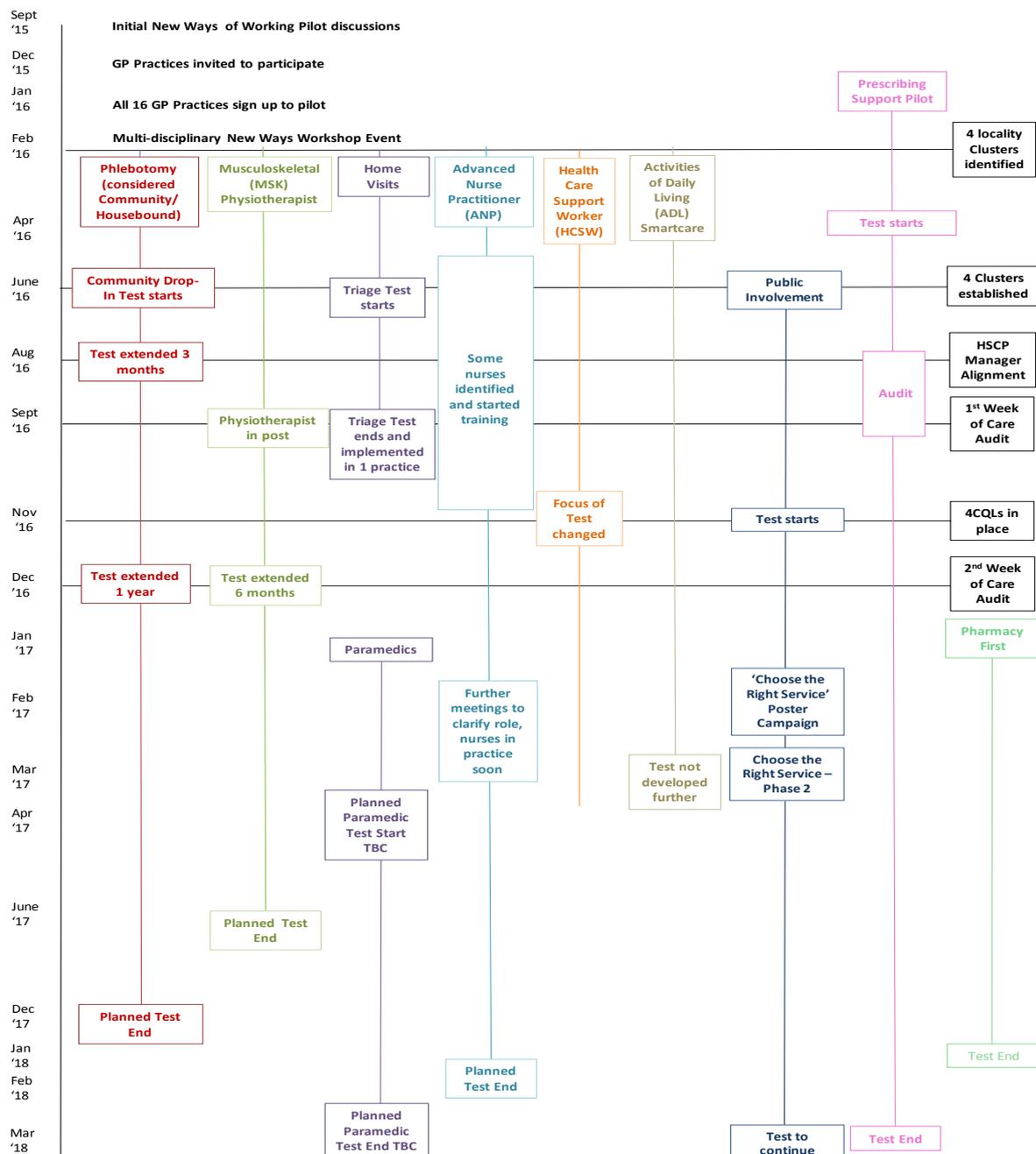


Key informants described general aspirations of the tests of change relating to improved capacity, accessibility and quality of services. They tended to refer to the iterative, cyclic approach to audit and evaluation of the tests of change rather than describing specific outcome measures to assess their impact in the short-, medium- and long-term. Some key informants expressed frustration in aligning this iterative approach with more familiar approaches such as those based on QI including before and after needs analysis for measuring impact of a new intervention [P1, P8, P9].

For each test of change, a work stream team was established comprising various stakeholders, including GP leads, PMs, PNs, physiotherapists, HSCP managers/facilitators, IT/QI support staff, depending on the test of change. The frequency of work stream team meetings varied, but typically, meetings were initially held weekly.

Key milestones involved in the development and implementation of each test of change are illustrated in Figure 8. In this, the name of each test of change is highlighted in text with a different coloured font along the top of the horizontal axis. Using the same colour coding, a description of each achieved or predicted milestone in the development and each test of change is detailed along the vertical axis against dates from the beginning of September 2015 to the end of March 2018.

Figure 8. Key milestones of the individual Inverclyde Tests of Change



3.7.1 Phlebotomy

Rationale and description: This test of change was suggested by some GPs who believed that staff undertaking venepuncture for blood tests were over qualified for this activity. Initially, it was conceived that the test of change would be a community phlebotomy service that would visit housebound patients at home. However, data collected from the 1st Week of Care audit in September 2016 suggested that numbers of patients requiring this service were too small to warrant the planned service. Consequently, the model was developed, based on GP Practices' understanding of their pressure points [P27, P23], as a drop-in service within Health Centre treatment rooms [P24]. For the GP Practices participating in the Phlebotomy test of change, this was a new service development. One GP Practice that initially considered participating in this test of change subsequently withdrew as it had trained some reception staff as phlebotomists. This GP Practice did not perceive that participation would be of benefit to its patients if they had to go to another GP Practice for the service. Ultimately, this test involved 2 GP Clusters, 5 GP Practices, and 21 GPs serving a combined patient population of 15,778.

Anticipated outcomes: The Phlebotomy test of change was expected to release capacity for GPs, PNs and Treatment Room nurses, and increase their job satisfaction. The anticipated increased capacity was for GP to devote more time to complex patients, for PNs to undertake some of the less complex GP workload, and for Treatment Room nurses to undertake tasks to the *top of their licence*. The mechanisms through which increased job satisfaction for GP Practice staff were not made explicit. Moreover, the anticipated levels of impact in the short, medium or long term were not quantified.

Implementation and progress: The Phlebotomy test of change became operational in June 2016. It was originally planned to run for a 3-months only, but was subsequently extended to end in December 2017. It operated between 09.00-13.00 hours, Monday to Friday in GP Practice premises in two sites: Port Glasgow and Greenock. In Port Glasgow, a 0.5 FTE Band 2 phlebotomist was recruited to cover 4 Port Glasgow GP Practices. In Greenock, only one GP Practice was covered by the new service, and this utilised existing Treatment Room staff. A key difference between the models implemented in each site was that the dedicated Port Glasgow phlebotomist was not involved in other Treatment Room activities, whereas Greenock staff were.

The budget allocated covered the costs of:

- a Band 2 community phlebotomist in Port Glasgow site, initially working 18 hours per week but subsequently increased to 25 hours per week on the 1st of December 2016. The estimated costs for this post is £950 per month
- backfill for existing Treatment Room staff in the Greenock site (cost not specified)
- accommodation in each site (costs not specified)

Patients were referred to the phlebotomists by healthcare providers using a bespoke referral form. Initially, it was intended that referrals would not include patients on chronic disease management registers or patients prescribed disease modifying anti-rheumatic drugs. This was subsequently

amended, following review of activity during the first 6 months of operation, to include patients on chronic disease management registers. GP Practices arranged to stagger their patient recall lists for blood tests for these patients to ensure demand was in line with the new Phlebotomy Service's capacity. The phlebotomist took the requested blood samples, logged into the laboratory test request system in order to print labels for the blood tests and, using the web-based EMISS system that gives some access to the GP Practice patient record system, noted that the requested bloods had been taken. This electronic recording of activity may have facilitated its quantification.

Implementation of the test was reported to have been relatively straightforward, although initial lack of space, which related to competing demand on the Treatment Room by existing service providers and the new service, was thought to have contributed to some tension. Whilst this situation was reported to have been resolved in the current test sites, it was anticipated that this may need careful consideration if the model is continued or rolled out to other Health Centres.

Evaluation of this test of change has been supported by a Clinical Effectiveness Co-ordinator and an ISD Data Analyst, and involved collection and analysis of both quantitative and qualitative data. At the time of writing, there was limited evidence to show if the Phlebotomy Service was achieving the desired shift in activity from GP Practice staff or to assess the impact on the released capacity in relation to other clinical activities. In relation to the latter, neither the GP Practices systems for recording consultation activity nor the bespoke data collection tools for the new service lent themselves to capture relevant activity.

Local evaluations of this test have involved the collection of both quantitative and qualitative data.

Quantitative data collection across all 5 participating GP Practices used a number of sources including:

1. routinely held data from the Order Communications Requesting Systems (Order Comms), which are frequently used across NHS Boards to enhance and automate requesting and reporting of laboratory test results. These provided baseline and follow-up data for blood tests in both the GP Practice and the Treatment Room. Initial collection of these data covered a six-month period from June 2016 to November 2016, inclusive.
These showed that the service in the Port Glasgow site, which serves 4 GP Practices, saw an average of 20 patients a day, and the Greenock Health Centre site, serving one GP Practice, saw an average of 2.7 patients per day.
2. a bespoke data collection tool on which GPs recorded information on number blood tests undertaken, type of professional carrying out the test, and number of tests carried out by phlebotomist that previously would have been undertaken by the GP or PN. The dedicated ISD Data Analyst provided a template for this data collection tool.
This indicated that in the Port Glasgow site, 25% of venepunctures would previously been carried out by a GP or PN, 60% by a Treatment Room Nurse, and data were missing for the remaining 15% of cases. For the Greenock site, these proportions were 25% by a GP or PN,

0% by a Treatment Room Nurse, and data were missing for the remaining cases. On this basis, it was concluded that capacity had been mostly released for Treatment Room Nurses. This was considered significant, as Treatment Room Nurses have been for some time absorbing workloads previously undertaken by the District Nursing service.

3. a bespoke Treatment Room Activity data collection form that was used to collect information on number and type of activity undertaken in the Treatment Room. These data were collected between June and November of 2016.
Analysis of Treatment Room activity data were more difficult to interpret in terms of whether or not there had been a change in the volume of work because of the ongoing shift from the District Nursing Service to Treatment Room Nurses.
4. a bespoke staff online survey questionnaire that collected feedback from GPs and Treatment Room staff on opening times and perceived benefits of the Phlebotomy Service, and on ways it could be improved.
This was reported to show that the model implemented in each site was perceived beneficial to respondents. Moreover, experience of this test of change stimulated discussion on other ways of releasing GP capacity [P22].
5. a bespoke patient satisfaction questionnaire, designed by the Clinical Effectiveness Co-ordinator, was used to collect ongoing feedback from patients using the Phlebotomy Service.
The response rate to the patient satisfaction survey was reported to be much higher than expected, and a report of this was not available at the time of writing.

Qualitative data collection also involved all 5 participating GP Practices and included:

1. the online staff survey of GPs and Treatment Room Nurses provided respondents the opportunity to comment in free text
the qualitative feedback from GP Practice staff had been positive, with anecdotal evidence supporting the impact on workload. This, as much as anything, was reported to drive the decision to continue this test of change [P24].
2. discussion with phlebotomists and Treatment Room staff
collation of this feedback was ongoing at the time of writing.

It was reported that support from the Clinical Effectiveness Co-ordinator was not requested at the outset of the test of change and, consequently, there may have a missed opportunity to work iteratively and use feedback to improve the service model adopted in each site.

Overall, progress with this test of change was reported as good in terms of implementing the Phlebotomy Service in each site, although there was a perception that differences in the way blood tests were managed between GP Practices posed a barrier to providing a consistent service [P24]. However, from the GP Practice perspective, the way in which they used the service may have evolved to fit local needs [P24]. Whilst there was agreement that the associated workload shift needed to be more robustly evidenced, it was believed that the Phlebotomy Service released clinical capacity in line with its aims, and that GP Practice staff perceive this as a worthwhile service

development. At the time of reporting, there was no evidence of any unintended consequence of the Phlebotomy Service.

Key learning included the need for careful consideration of:

- the target patient population for the test
- how existing GP Practice accommodation can be realigned to accommodate a new service
- how patient referrals are managed so that they do not exceed capacity
- the need for robust, routinely recorded data on consultation and other clinical activities.

Ease of implementation, likely sustainability and future roll out: Notwithstanding the above considerations, this test of change was considered relatively easy to implement. Its sustainability, if proved effective, was not highlighted as problematic as its associated costs were considered minimal. One key informant believed the continuation of the service could be met within existing budgets with some restructuring of staff time [P24]. There was, however, recognition that further work will be required before rolling out the service to other sites in order to understand what aspects may need to be adapted to fit different GP Practice population needs. The key stakeholders for this test of change would be NHS Health Boards and GP Practices.

Future plans for this test of change in Inverclyde had not been finalised but discussion to date suggested they might include:

- extending the service to carry out home visits to housebound patients requiring a blood test for chronic disease management and/or who are prescribed disease modifying anti-rheumatic drugs. This would then be followed-up by a visit by the PN, with the ultimate aim of releasing capacity in the District Nursing Service. At the time of reporting, data to assess the workload and likely impact were being collated.
- enhancing the patient feedback data by following up a small sample of respondents with phone calls to elicit a more in-depth response [P24].

3.7.2 Musculoskeletal Physiotherapy

Rationale and description: this test of change was developed in response to the increasing numbers of patients presenting to GPs with MSK conditions, estimated as accounting for around 20-30% of GP workload [P20,P24]; and in recognition of increased pressures on mainstream MSK physiotherapy services. Combined, these translated to delays for the patients seeing a specialist for assessment and potential treatment. Moreover, after assessment, MSK physiotherapy was not always considered the most appropriate treatment option, which resulted in unnecessary steps in the patient care journey and inefficient use of clinical time. These delays to accessing the *right person at the right time* were perceived to increase the *chance of chronicity* [P20].

This test comprised a primary care-based Advanced Physiotherapist Practitioner (APP) who received referrals from participating GP Practices as the first point of contact for patients presenting with a likely MSK-related problem. This was described as an entirely new development in Inverclyde, and

the participating GP Practices considered themselves to be high referrers to mainstream MSK Physiotherapy services. This test involved 2 GP Clusters, 3 GP Practices, and 15 GPs serving a combined patient population of 13,794.

Anticipated outcomes: the overall aims of this test of change were to release GP capacity to concentrate on non MSK-related activities; improve patient access to appropriate services and avoid the development of chronic problems; and reduce pressure on mainstream MSK physiotherapy services. Released GP capacity was expected to be achieved by providing a service that would bypass GPs as the first point of contact for patients with MSK conditions. Improved patient access to services and reduced chronicity was expected to be achieved by providing a service that could quickly assess need and determine the most effective investigation/treatment plan for individual patients, which may include referral to mainstream MSK physiotherapy services or secondary care services such as X-ray/MRI, orthopaedic, rheumatology, or pain clinics. Reduced pressure on MSK services was expected to be achieved by the APP who could advise patients on exercise and activities that could be implemented/avoided to resolve their MSK-related problems without further investigation or referral. There was no reference to existing evidence to underpin the expressed views, although there was awareness of different, smaller scale physiotherapy pilots occurring elsewhere in Scotland and England. The anticipated levels of impact in the short, medium or long term on any of the aims of this test of change were not quantified.

Implementation and progress: The development of the test began around June 2016. A physiotherapist was appointed by the NHS to deliver the service to 3 participating GP Practices. The adopted model mainly relied on GP Practice staff screening patient requests for an appointment (based on a script) to determine if the problem was MSK-related, and, if so, the patient was offered a 20 minute appointment with the APP in the GP Practice. In addition, the APP also responded to patient self-referrals and to referrals made by GPs and other Practice staff.

During the appointment, the APP assessed the patient, devised a treatment plan, and, if required, arranged prescribed medication. It was suggested that these appointments tended to be one-offs as most patients were assessed by the APP as not requiring further follow-up. However, the APP was able to refer patients to secondary care services or to the GP if required.

The appointed physiotherapist underwent several months training, which was co-designed and delivered by the GP Lead and Practice Development Physiotherapist. Training included working with the Lead GP on a series of patient vignettes/case scenarios. As the APP was to be the first point of contact for the patient, training focussed on 'at-risk' scenarios to determine the physiotherapist's comfort levels in relation to spotting *red flags* that required referral to the GP. Ongoing support and training was provided by the mainstream Physiotherapy Department. Other secondary care services, e.g. radiology, helped develop referral pathways for the new service [P20].

During this time, work was undertaken on developing clinics across the GP Practices and training reception staff. Reception staff training was delivered by the Lead GP, the named Practice GP, the APP and the Practice Development Physiotherapist. This involved guidance on how to introduce the new service to patients and explain how it differed from mainstream physiotherapy services. Their training also focused on standardising the implementation of the script to be used when patients called requesting a GP appointment. PMs were involved with the work relating to creating EMIS read-codes for the GP Practice patient record system [P17] to allow routine recording of the APP appointment-related activity.

By December 2016, the APP was considered autonomous and the service was fully operational. However, the development of an APP competency framework continued as the requirements of the new role emerged. The APP test was originally due to finish in February 2017, but was extended to June 2017.

The budget allocated covers the costs of:

- a 0.88 FTE Band 7 physiotherapist (estimated at £25,000 plus on costs for 6 months)
- accommodation for the APP clinic base in Greenock Health Centre (estimated at £412 for 6 months)
- funding for the GP Lead for the test (sum not specified)

Implementation of the test was reported to have required a long lead in time for recruitment of the physiotherapist, development of the APP role, and delivery of training across all participating GP Practices. Implementation of the service took longer in larger GP Practices.

The decision to extend the test of change to June 2017 was made for several reasons including its long lead in time, and the inability to follow-up outcomes of patients referred by the APP to mainstream MSK services and to secondary care services because of long waiting lists in these services. The extension was expected to provide better opportunity to evaluate whether or not the test was achieving its aims.

A number of factors were identified as having facilitated the development and implementation of the primary care based APP. These included additional financial resources invested in the GP Practices; the enthusiasm and commitment of the GP Practice staff, the appointed APP; and the external support provided by the HSCP, Clinical Effectiveness, Physiotherapy Service and the ISD Data Analyst. The arrangement whereby the APP was employed by NHS GG&C, and integrated within existing MSK physiotherapy services, was considered important. This not only allowed the service to operate within existing governance and support arrangement, but also assisted in developing networks and referral pathways and improved the interface between primary care and secondary care [P17, P20, P24, P25]. Since implementation, additional needs were identified relating to referral pathways, and shadowing of secondary care staff was organised for the APP.

Limited access to the APP meant that GPs were still seeing some patients with MSK problems. This was thought to contribute to delays in standardising both practice and recording of referrals across the participating GP Practices. There was also differences between GP Practices in relation to the extent to which the APP could access their patients' records remotely. Over time, small iterative changes were made to the proportion of the APP service allocation to the participating GP Practices to better meet demand.

Evaluation of this test of change was supported by the ISD Data Analyst, a HSCP Project Manager, Clinical Effectiveness, and the Physiotherapy Service who met with PMs every 6 weeks. Input to evaluation was reported to be greater than anticipated for the ISD Analyst and PMs. The evaluation planned to measure impact in relation to the desired shift in MSK-related consultation activity from GPs to the APP and the impact of achieved increased clinical capacity. One key informant reported that a *scattergun* approach had been adopted to data collection for the evaluation because it was not yet clear where changes would occur [P20]. The evaluation plans included the collection of both quantitative and qualitative data.

Quantitative data collection involved all 3 participating GP Practices and used a number of sources:

1. an audit of GP consultations before and after the start of the new service to quantify the number of patients presenting with a MSK problem, number of patients who could be referred to an APP, and consultation outcomes in relation to prescribing and referral to other services. *It was reported that the baseline data suggested that 10-20% of GP consultations could be undertaken by the APP. Subsequent data were reported to show that prescribing activity had decreased for patients presenting with a MSK problem; 80% c.f 20% were given a prescription pre and post implementation of the test, respectively. In addition to potential cost savings, one key informant believed that this change would have a positive effect on patient safety and the patient journey [P20]. Changes in the patient journey were described as being as expected, with fewer patients referred to orthopaedic and imaging secondary care services [P20]. However, more time was needed to determine if there had been any impact on referrals to mainstream MSK physiotherapy.*
2. routinely recorded data retrieved from SCI Gateway in relation to the number of referrals to secondary care orthopaedics, physiotherapy imaging services; number of bloods test that were followed up; number of patients who were followed-up by other services, and number of patients who were not followed-up by other services. *It was generally accepted that it was too early to demonstrate any trend in relation use of secondary care services from routinely recorded SCI Gateway data.*
3. staff questionnaire survey of Inverclyde healthcare staff in services to which the APP had referred patients. *Only 5 responses were obtained from the staff feedback questionnaire. Physiotherapist respondents reported that the MSK test of change had a positive impact on patient outcomes and the Physiotherapy Service. In relation to the former, the service provided early access to expert reassurance and advice on self-management measures. Ultimately, this translated to*

perceptions that referrals to mainstream physiotherapist were more appropriate, and that in some cases the self-management undertaken by patients meant that the presenting problem had already started to improve and decreased the duration of subsequent treatment.

4. 2 questionnaires given to patients at the end of an appointment with the APP. The first was administered periodically and comprised the CARE Measure [38] (a person-centred consultation process measure of empathy in the context of the therapeutic relationship during a one-on-one consultation between a clinician and a patient). The second was administered routinely and contained a small number of questions designed to capture patients' views on the consultation in relation to whether or not it had been a good experience, whether or not it had been helpful, and what was good or bad about it [P17, P19].

At the time of writing, patient feedback questionnaires had been obtained from 135 patients, no information is given on the denominator i.e. the total number of patients seen by the APP during this particular evaluation period. Nevertheless, 70% of respondents rated that they 'felt very happy about the appointment with physio today' and 83% rated that 'the appointment had helped with their problem today'. Twenty-five patients completed the CARE Measure questionnaire. It was reported that analysis of these data showed that the APP scored higher than a peer reference group of physiotherapists (48.20 c.f. 47.69).

5. ongoing collection of data by the APP on number and ages of patients seen, number and duration of appointments, presenting problems and duration of symptoms, and outcome of consultations in relation to prescriptions and referrals. The APP also followed up patients in order to quantify the number of patients who subsequently re-attended the GP for the same problem. The APP routinely kept records on the number of appointments that patients failed to attend.

The mean appointment time with the APP was calculated as 15 minutes. It was reported that around three quarters of patients who saw the APP did not subsequently seek a GP for the same problem [P17, P20].

6. ongoing data recorded by GPs and other Practice staff on MSK-related consultations, including the number of patients who accept and number of patients who decline an appointment with the APP.

These data were used to provide evidence on the number of patients who slipped through the net for the MSK Physiotherapy test of change, and helped confirm demand and shape the relative allocation of the APP to each participating GP Practice [P15, P20]. One key informant urged caution in interpreting these data, as their reliability was dependent on the extent to which each GP Practice had implemented systems to ensure accurate and comprehensive recording of activity by different members of its team [P20]. Elaborating further, this key informant suggested that it would be a weakness if "a lot of weight is put on the assumptions that are made from that data" [P20]. Nevertheless, it was reported that an impact on GP workload and cost-effectiveness were beginning to be illustrated by the data. It was reported that early data analysis showed that appointments were being released

Qualitative data collection was reported to have commenced in January 2017 and involved Clinical Effectiveness-led interviews with GPs, GP Practice staff and MSK physiotherapists. Data collection was ongoing at the time of the key informant interviews.

Several key informants believed that the evaluation plans could be stronger and that there was a risk of failing to identify the full impact of the test and important learning. They cited others measures including patients' perceptions of improved service quality, and experience of length of time on painkillers and absence from work [P13, P17]. Other suggested measures relating to the wider impact of the test such as skill development for GPs and physiotherapists.

On an anecdotal level, there was evidence that the MSK Physiotherapy test of change was benefiting patients and GP Practices. In relation to patients, it was reported that patients using the MSK physiotherapy service *love it* [P17], and *valued* the longer appointment for their presenting problem and *understanding of the expert* [P20]. In relation to GP Practices, one key informant suggested that the MSK Physiotherapy test of change appeared to have contributed to a new, improved atmosphere in the GP Practices that could potentially aid recruitment in the future [P15]. Others believed that new opportunities for informal discussion and learning had been created, which could translate into improved quality of patient care [P17, P20, P23, P24, P25,]. For example:

Having the physiotherapist in the same building, has changed my Practice and has made a huge difference to the way that we assess joints

P25

It was reported that decisions on patient care were happening more quickly, which contributed to cost savings in General Practice, improved patient journey and decreased GP workload [P24]. For example, the ability of the GP and physiotherapist to have a quick informal chat about changes to a patient's medication often meant that the patient did not need to make a follow-up GP appointment. However, concern was expressed about the ability to measure the impact of released GP capacity within the planned timescale of the test [P15, P16, P17]. Nevertheless, savings in costs associated with 8-10% of GP appointments time were reported, which was considered significant and unlikely to be achieved by many services. It was reported that it was difficult to obtain robust data to allow assessment of cost savings on the wider healthcare system [P20].

At the time of reporting, there was no evidence of any unintended consequence of the MSK Physiotherapy test of change.

Key learning included:

- the time taken to implement the primary care-based APP service should be not underestimated and should be factored into the implementation and evaluation plans for future similar tests of change
- implementation of the primary care-based APP service involves considerable input from GP Practice and NHS staff, and takes longer in GP Practices with larger staff numbers

- prior engagement with secondary care service providers facilitated implementation of the primary care-based APP service
- employment of the primary care-based APP through the NHS is helpful as it provides a clinical governance infrastructure and continuous professional development opportunities, as well as improving the interface between primary care and secondary care
- how to manage the volume of referrals to the primary care-based APP so that it does not exceed capacity
- the need for improved routine data recording systems and practices relating to clinical activity in order to assess
 - the extent to which the service has released capacity of the GP Practice staff who, in the absence of this service development, would be undertaking MSK-related consultation activity
 - how this released capacity is utilised by different members of GP Practice staff
 - monitoring trends in referral to diagnostic services such as radiography and imaging services
 - monitoring trends in referrals to mainstream MSK physiotherapy and secondary care services.

Ease of implementation, likely sustainability and future roll out: After the planning stage, it took a number of months to implement this new service. Implementation required considerable input from GPs as well as NHS Physiotherapy Services. Once established, the service was generally perceived to be worthwhile. However, its future sustainability would require investment by one or more of the key stakeholders who included the participating GP Practices and NHS GG&C. At the time of reporting, there were no data on the relative cost-effectiveness of the services to each of these potential funders. One key informant believed the continuation of the service could be met within existing budgets with some restructuring of staff time [P24]. There was, however, recognition that further work will be required before rolling out the service to other sites in order to understand what aspects may need to be adapted to fit different GP Practice population needs. NHS Education for Scotland (NES) or Higher Education Institutions (HEI) may also be a stakeholder in the future rollout of this service if a national training programme for the primary care-based APP is required.

3.7.3 Home Visits

Rationale and description: This test of change was developed because it was believed that some GP consultations in patients' homes could be undertaken by the GP either in the Practice or by telephone, or by a different care provider. The intention was to implement the Home Visits new model of care over two phases. During the first phase, a triage system would be introduced whereby a nurse would telephone patients who had requested a GP home consultation and, if appropriate after discussion, would suggest an alternative type of and/or alternative healthcare provider for the consultation. The second phase would build on the telephone triage system, and comprise testing paramedics as an alternative healthcare provider for consultations in patients' homes. Whilst some Inverclyde GP Practice had previous experience of nurse-led telephone triage, none had been

involved in this more comprehensive approach to managing GP Home Visits. Two individual GP Practices within a Health Centre in the Greenock GP Cluster chose to adopt and develop the nurse-led Telephone Triage component of this test. However, one subsequently withdrew due to staffing issues so that this component of the test ultimately involved 1 GP Practice.

It was anticipated that the paramedic component of this test would have wider involvement and be adopted by 2 GP Clusters, 9 GP Practices and 42 GPs, serving a total of 57,924 patients. It was expected that four paramedics would be involved in the test of change, working across the two GP Clusters. Some key informant expressed a degree of anxiety around the scale of proposed change, and cautioned that the test was probably going to take longer than anticipated [P13, P16].

Specialist paramedics undertaking consultations in patients' homes was described as having widespread support from the Inverclyde GP Practices. It was envisaged that this would complement other tests of change that addressed the overall aim of releasing GP capacity, and would dovetail with other models that were testing alternative approaches to GP care. Indeed, some thought that one of the most meaningful discoveries may be around which professional can best meet particular patient needs [P27]. There was a feeling that this test was *"definitely worth a shot cos you know it is not a tinkering around the edges project, it's proper stuff"* [P13], and a *"potentially exciting thing"* for which there was *"huge enthusiasm"* [P15].

The recent opportunity presented by Scottish Ambulance service to introduce specialist paramedics to respond to requests for GP home consultations provided impetus for developing this component of the Home Visits test of change. The Scottish Ambulance Service and a GP in the West GP Cluster were described as key drivers in the development of this test of change [P13, P14, P15, P24]. Support for the test was provided by the HSCP, the Scottish Ambulance Service, a CQL, a Test Lead and a team of PQLs.

Anticipated outcomes: both components of the Home Visits test of change were expected to reduce the number of GP consultations in patients' homes. In addition, the paramedic component of the test was expected to avoid unwarranted hospital admissions. The anticipated levels of impacts in the short, medium or long term of either components of this test were not quantified.

PHASE ONE: TELEPHONE TRIAGE

Implementation and progress: The test lead for this component was the PM of the participating GP Practice who was supported by the Practice PN. It was reported that the model developed organically within the Practice without external support. The workload of the PN was reviewed to identify capacity to undertake telephone triage, and activity of reception staff was reviewed to identify the period when most calls for home visits were received. The developed model involved the PN responding to requests for GP home consultations between 09.30 and 10.30 hours each day by telephoning the caller back in order to assess the patient's symptoms and concerns, and then agree with the caller how the patient's needs might best be met.

It was reported that, in practice, the time devoted on triaging the calls by the staff member was in excess of the agreed model:

it will extend more than ... I'm pretty sure she does ... anybody who asks for a home visit, she's actually ... ringing them because her tea-time's directly after, so I'm ... I know for a fact she's ... that dedicated she doesn't get her tea-break ... she'll expand it until she's spoken to all the patients...

P2

The triage calls were structured, and the potential outcomes included the PN advising the patient:

1. that a GP home visit would take place
2. that the consultation could be undertaken by a GP either by telephone or in the GP Practice, and offering available appointment slots
3. that the consultation could be undertaken by the PN in the GP Practice, and offering available appointment slots
4. to self-refer to another service such as community pharmacy, physiotherapy, District Nursing Service or Accident & Emergency (A&E)
5. to telephone again if the problem remained unresolved within a particular timeframe.

Nurse-led telephone triage was implemented with relative ease in the participating GP Practice in June 2016. The model was tested for approximately 3 months until mid-September; thereafter it was implemented as standard practice within the GP Practice.

It was reported that this test of change incurred no additional financial investment as it was carried out within existing resources.

Evaluation was supported by the ISD Data Analyst and Clinical Effectiveness. The focus of the evaluation plans was to measure:

- number of GP consultations in patients' homes
- number of requested GP home consultations that were carried out by the GP in the GP Practice either face-to-face or by telephone
- number of requested GP consultations carried out by different healthcare providers in the GP Practice or by telephone
- number of requested GP home consultations that were carried out elsewhere by a different healthcare provider
- the impact of released clinical capacity in relation to the management of complex cases and undifferentiated care.

The evaluation plans included the collection of both quantitative and qualitative data.

Quantitative data were collected over a 39-day period between 19 July and 9 September 2016. Using a template, provide by the ISD Data Analyst, data were recorded for each request for a GP Home Visit in relation to:

- type of patient residence (e.g community-dwelling or residential care)
- whether or not triaged by the PN
 - and if triaged, its outcome in terms of the type of healthcare provider who was involved in providing advice/consultation and the location of the consultation
 - and regardless of whether or not triaged, rating of home consultations in relation to the most appropriate person who could have carried the consultation, whether this was the GP or another healthcare provider.

The PM collated these data and completed the data collection template with reference to the patient’s clinical records for subsequent analysis by the ISD Data Analyst. In terms of judging consistency of data recording, the PM used a similar approach for completing the two *Week of Care* audits.

Some patient feedback was obtained, but it was not clear whether these were quantitative or qualitative.

During the test period, there were 193 requests for a GP Home Visit; 35% were triaged by the PN. Thirty-nine of all requests (20%) did not translate in a GP Home Visit on the day of the request; representing 38 (56%) of all triaged requests and 1(1%) of all requests that were not triaged (Table 3).

Forty-one of the GP Home Visits that were carried out (27%), were judged as being able to be carried out by a District Nurse, ANP or Care Home Liaison Nurse; representing 10 (33%) triaged Home Visits and 31 (25%) of non-triaged Home Visits.

Table 3. Outcome of requests for a GP Home Visit on the day of request in relation to whether or not the request was triaged and a GP Home Visit was carried out

	Number (%) of GP Home Visit Requests which Resulted In		
	GP Home Visit	No GP Home Visit	Total
Triaged Request	30 (44%)	38 (56%)	68 (35%)
Un-triaged Request	124 (99%)	1 (1%)	125 (65%)
ALL	154 (80%)	39 (20%)	193 (100%)

It was tentatively reported that the data highlighted the need for triage to be performed for all requested GP home consultations. However, more detailed information is required about clinical and other outcomes, including the proportion of patients who subsequently required a GP home consultation within a defined timeframe for both triaged and non-triaged requests. It was reported that future plans included a follow-up of outcomes for patients who were triaged [P14], but there

was no reference made to similar plans for non-triaged patients. The latter would be required to make comparisons.

It was believed that the findings of the qualitative evaluation of the test will be included in a progress report in April 2017.

On the basis of anecdotal evidence, it was reported that GP Practice staff felt that GP Home Visit workload had decreased [P21, P22], which supports the assumption that the triage system had been effective in releasing GP capacity rather than postponing an immediate response for the GP to carry out a home consultation. At the time of reporting, there were no data available on released GP capacity resulting from the test, or how this had been utilised. One GP felt that EMIS Web could be a useful data-gathering tool, but staff would require training in the use of this system [P21].

The perceived success of this test of change was largely attributed to the participating PN who was described as an experienced practitioner who was well known, respected and trusted in the local area [P22]. It was felt that these attributes facilitated the implementation of change as patients were likely to be happy to respond to the PN's advice [P22].

The biggest perceived barrier to the implementation of this test related to public engagement:

Public engagement is the biggest issue in this, as far as I can see, because ...nothing's changed ... "We'll ring the GP", "we'll go to the GP" for everything and that's it- "we'll" I not even consider anything else"

P22

This key informant believed that this attitude was held less strongly by the younger generation:

I think it varies, it varies, you will still get the folk who, you know, want to see their GP no matter what, and that's something we just have to deal with. I think the younger more digital generations are very much...they love the idea of going online and being able to book appointments, get different things online

P22

A negative impact of the model, although reportedly minor, was that triage activity reduced to some extent the PN's capacity to see patients, with some patients having to wait longer.

Key learning highlighted the need for:

- a public information campaign to manage patient expectations whilst service changes are being tested
- improved systems for routinely recording data relating to consultation activity
- staff training in data collection and retrieval systems.

Ease of implementation, likely sustainability and future roll out. Nurse-led telephone triage was considered relatively easy to implement within existing resources, and was sustained in the participating GP Practice after the test period ended. It was reported that there had been discussion on how the existing model could be developed and adapted for use in other GP Practices. For example, the PN in the test GP Practice, as a non-car driver, did not undertake Home Visits, and, it was thought possible that other GP Practices may be able to modify the model to include PNs as an alternative healthcare provider for carrying out Home Visits [P22].

Future plans for this test of change included implementing a system to advise bedbound and terminally ill patients to telephone the GP Practice before 10.00 hours if their call was to request a home consultation with the GP. It was reported that there was plans for using released GP capacity to improve access to GP appointments and to offer longer appointments. In relation to improved access, the intention was to provide an additional lunchtime surgery, which was considered important for working patients. In relation to longer appointments, the initial intention was to offer 15-minute appointments for patients with complex needs, but the eventual aim was to offer 15-minute appointments to all patients.

PHASE TWO: PARAMEDICS

Progress: this component of the Home Visit test of change was originally intended to begin in January 2017, but was delayed and not operational at the time of reporting. Some of the delay was attributed to the need to define roles and contractual obligations. Reference was made to the model pioneered in Hawick in the south of Scotland, where local paramedics and GP Practices work together and the paramedics assess and treat patients in their homes. There was also reference to other areas in Scotland where paramedics have been involved in consultations in patients' homes when there were no GPs available to respond to demand [P21, P14, P15]. The delay was also attributed to the time involved in recruiting and training the paramedics [P13,P16]. The paramedic training included mentoring by both GPs and A&E doctors [P15]. At the time of reporting, two paramedics were in the early stages of training and mentoring. Discussions were ongoing to determine how work from across the GP Clusters would be allocated to paramedics, and around issues related to risk. Thus the design of the Paramedic component of this test was still in development.

It was anticipated that future evaluation would involve collection of both retrospective and prospective data [P15]. Data relating to emergency admissions were currently being explored with a view to determining whether or not there are differences between GP Practices and, if so, possible explanations for these [P15]. It was recognised that patient satisfaction was an important measurement of impact [P13].

3.7.4 Advanced Nurse Practitioner

Rationale and description: At a local level, there was a desire to upskill nurses to be able to deal with some of the less complex GP workload [P14, P16]. There was also a perception that there was a

great deal of variation in the roles and activities of PNs across Inverclyde [P23]. It was recognised that other areas in Scotland and England had already established primary care-based ANPs. Consequently, this test of change was viewed as an opportunity to invest in PN training with a view to creating a workforce with advanced clinical skills that could potentially be a shared resource between groups of GP Practices. Thus, the original intention was not only to test new extended roles for PNs but also new ways of working. This planned local development was seen to align with national and NHS GG&C strategic ambitions:

So, we've started... looking at the pathways of an ANP in General Practice ... So, we're bringing what the Board is wanting to do, and we're bringing in what Inverclyde feels they need to do, trying to get them along the same trajectory because at the end of the day we need to be able to classify what an Advanced Nurse Practitioner is otherwise we'll have 100 different variants which isn't really particularly helpful.

P18

In December 2016, NHS GG&C appointed a Consultant Nurse for Advanced Practice and produced a strategy for the development of ANPs in response to the recommendation contained in the Phase 1 Report of the Advanced Practice work stream of the Chief Nursing Officer 'Transforming Nursing Roles' programme. The salient points in the new strategy include:

- re-affirmation that ANP roles are nursing roles within the nursing career structure and reporting lines
- ANPs, where practical, should work in teams of ANPs led by a lead ANP
- nurses who are being prepared as ANPs should be employed as trainee ANPs and will undertake an appropriate Masters level ANP programme

Glasgow Caledonian University and the University of the West of Scotland both provide ANP educational programmes. These are modular based and generally delivered over two academic years. Successful completion of all the modules delivered across both years is required for the award of a Masters degree. The programmes also allow nurses to complete individual SCQF level 11 accredited modules covering areas such as advanced clinical assessment and decision making, prescribing, and work-based learning.

The realisation that it would take two years to train ANPs caused Inverclyde to revise its original plans for this test of change. Early in December 2016, a decision was made by GG&C that nurses completing selected modules of the ANP education programmes could only operate as NPs and that only nurses completing all the required modules for a Master could work as ANPs. The NP would be able to prescribe and undertake advanced assessment, while the ANP would be able to do all activities in line with the role. For the purpose of this test of change, it was further decided that nurses would only be required to be trained as NPs.

This test involved 3 GP Clusters, 7 GP Practices and 30 GPs serving a combined patient population of 33,018. It was supported by two Professional Nurse Advisors, the Practice Nurse Support and Development Team Manager, a NHS GG&C Board Lead, a Staff Partnership Forum Representative, and a HSCP Project Manager.

Anticipated outcomes: The stated overall aim of this test of change was to free up consultation time within GP Practices by patients seeing the right person first time. Specifically, it was expected to achieve:

1. greater understanding of the potential for change and opportunities/goals to work towards
2. greater clarity of roles within the nursing context
3. enhanced skill set within the wider community team to support chronic and acute presentations

The anticipated levels of impact in the short, medium or long term on any of the aims of this test of change have not been quantified. However, at the time of reporting, work was ongoing in relation to defining the respective roles for ANP and NP. It is likely, therefore, that the overall aim and specific outcome measures will be subsequently refined.

Implementation and progress: To date, work has focussed on three areas.

The first comprised a scoping survey of PNs to identify current roles. The findings of this were viewed in conjunction with the findings of the Home Visit test of change and the *Week of Care* audits.

The second related to defining the respective pathways and competencies for the NP and ANP roles. One key informant referred to this as an ongoing *huge debate* [P15]. It was reported that there were fundamental differences in the way different interested parties approached the development of tests of change whereby some appeared driven by the aim to shift the balance of some care from GPs to other healthcare providers, whilst others wanted changes to be driven by the ethos of patient-centred care that *put the patient firmly in the middle of all the processes* [P18].

The third related to identifying and recruiting nurses from within the existing workforce for training to undertake the educational requirements for the new nursing roles. GP Practices were asked to nominate nurses for potential NP/ANP training and nurses were asked separately if they were interested in becoming a NP or ANP. The identified PNs and their PMs were then interviewed by phone to ensure that the GP Practice had capacity to release the PN for training and provide GP mentoring (7 hours per week). Only 1 GP Practice could meet these requirements in time for the start of the next ANP educational programme.

Thus in September 2016, one PN started a training programme along with 4 other Inverclyde community-based nurses (2 Home Care Liaison Nurses, 1 Community Nurse and 1 Gerontology

Nurse). In January 2017, another PN started training along with a Community Learning Disability Nurse, and another 5 PNs have been identified to start training later in 2017. The modules undertaken related to Advanced Assessment and Non-Medical Prescribing, the latter is funded centrally by the SG, except for PNs

The allocated budget covered the costs during:

- 2016/2017 (£21,845) for training programme modules and backfill for 2 PNs and 1 Gerontology Nurse, and backfill for 1 District Nurse
- 2017/2018 (£92,162) for training programme modules and backfill for 5 PNs, 3 HSCP nurses, and the District Nursing service

The planned end date for this test is March 2018, by which time it is anticipated that 1 PNs will have completed the ANP training programme and at least another 6 or 7 Inverclyde nurses will be trained NPs.

At the time of reporting, 1 PN had completed the two modules relating to Prescribing and Advanced Assessment, and is working towards completing further modules to achieve a Masters degree. It was reported that this PN's role had already evolved, whereby its focus had broadened from the management of long term conditions (particularly diabetes) to include the whole patient population and undertaking some minor ailments work [P18]. It was believed that the role of the community-based nurses involved in this test were also likely to evolve and would take account of other service developments (such as Paramedics in Home Visits and Older Care Unit/Hub) [P16]. It was hoped that a future ANP/NP role would evolve that led to dedicated assessment beds and time with a consultant geriatrician [P23].

Evaluation support was provided by the PN and Development Team Manager. Given the training time required before establishing a significant NP/ANP workforce, it was generally accepted that it would take a number of years to determine the impact of this service development. Consequently, identifying outcomes for evaluating this particular test was considered challenging [P1, P8, P6].

A preliminary data capture tool had recently been agreed for the trained GP Practice NP. This recorded information on:

- types of patients seen, and whether or not they
 - were different to those seen in previous PN role
 - were appropriate for a NP consultation
 - would have been referred onward to GP in previous PN role
- what was good/bad about patient consultations and whether or not anything should have been done differently

The NP also kept an ongoing record of any identified training needs.

It was reported that qualitative data capture was planned. This included the NP creating short narratives based on patient consultations. It was anticipated that these would be used to create a storyboard, which would not only contribute to the evaluation of this test of change but could also be used by other PNs considering NP/ANP training.

At an anecdotal level, it was reported that barriers to further development of this test of change related resource limitation, particularly GP Practice capacity to release PN for training and/or provide mentoring during training.

At the time of reporting, there was no documentary evidence of any unintended consequence of this test of change. However, one key informant highlighted that there may be a need to monitor the impact on patients who were previously the focus of the PN role (e.g. those with long terms conditions) [P18].

Key learning highlighted the need:

- for careful consideration of the resource implications for GP Practices in terms of releasing PNs for advanced training and the mentoring by GP requirements
- to take account of the long lead in time to the service becoming fully operational in terms of
 - the length of the ANP educational training programme,
 - the availability of these educational training places
 - agreeing new role definitions for NPs and ANPs working across care settings.
- to determine how NPs and ANPs can work best with other services that are also involved in the development of extended roles, particularly paramedics.

Ease of implementation, likely sustainability and future roll out are not likely to be evident until a larger ANP/PN workforce is established. It was reported that there was considerable enthusiasm for ANP test of change, but that GP Practices were not considering incurring the costs themselves. At the time of reporting, there was a lack of clarity on the future funding source:

The Advanced Nurse Practitioner test of change received a lot of enthusiasm... there's Practice Nurses there who feel that's a good career development for their profession. ...GPs are enthusiastic..."

Future plans for this test of change in Inverclyde have still to be finalised but discussion to date suggested that they might include:

- defining role and competencies, and workforce planning
- exploring the ANP/NP role in relation to GP Cluster working
- exploring the ANP/NP role in relation to other tests of change, particularly the role of paramedics.

3.7.5 Health Care Support Workers

Rationale and description: At the outset, two GP Practices in the same GP Cluster agreed to participate in this test because their patient populations included a high number of vulnerable people. One had a high number of very elderly patients with complex conditions who lived in areas, mostly affluent, with no local family support and at risk of becoming socially isolated. The other also had a number of elderly patients as well as a high number of patients with learning disability who lived in supported accommodation, who combined accounted for over 60% of GP Home Visit-related activities. This second GP Practice was already employing a HCSW to undertake community phlebotomy, blood pressures measurements, vitamin injections, flu vaccinations, and baseline measurements of patients newly registered with the GP Practice.

It was originally envisaged that the HCSW would:

- undertake some routine clinical measurements e.g. blood pressure
- undertake some health screening and promotion activities, particularly those relating to smoking, alcohol consumption, physical activity, and obesity
- administer pneumococcal vaccinations
- undertake some activities involved in managing patients with long term conditions
- link patients with existing community resources, considered important as Inverclyde no longer funded a Geriatric Health Visitor.

However, in response to clinical concerns and service developments, the proposed HCSW role underwent several revisions. Clinical concerns included the appropriateness of HCSW role in relation to the administration of vaccination and the management of long-term conditions [P25]. The introduction of Community Connectors workforce in Inverclyde, not previously anticipated by the GP Practices, removed the necessity for the HCSW to have a community resources linking role [P18].

It was originally envisaged that 1 FTE HCSW would work across the two GP Practices. However, one GP Practice withdrew interest from participating in this test of change, so that ultimately it involved the GP Practice that already employed a HCSW. This Practice had 5 GPs serving 3,006 patients. The final model for the HCSW test was agreed in November 2016, which appeared to be an extension of the existing HCSW role, whereby it not only included activities relating to newly registered with the GP Practice, but also included home visits to frail and vulnerable elderly patients.

The Test Lead was a participating GP who was to be supported by the Practice Nurse Support and Development Team Manager as well as a HSCP Manager.

Anticipated outcomes: the overall aim for this test of change was to release GP and PN capacity. The specific outcomes for the test that were expected to be achieved by February 2017 were:

- decreased GP administrative time by 20%
- decreased patient contacts (both in the GP Practice and in patients' homes) by inappropriate staff by 20%

- reduced GP stress scoring by 5%
- increased GP Practice team wellbeing score by 5%.

It was not clear on what these targets were based, and there was no explicit theory of change. However, it was anticipated that released clinical capacity would be achieved by the HCSW providing dedicated support around hospital discharges, frequent house calls and patient contacts; by developing a vulnerability score; and a system to identify the most appropriate healthcare professional to visit the patient.

Implementation and progress: The test of change was carried out until February 2017. Information on its progress has generally been unclear, perhaps reflecting the fluidity of the model as it underwent several changes of direction.

The participating GP Practice and the HSCP jointly funded this test of change. The GP Practice met half of the costs for additional HCSW working hours. The reported HSCP budget was around £6,000, but it is not clear whether this is based on calculations for the two GP Practices that had originally expressed interest or only the one that participated in the test. This funded half of the HCSW increased working hours and additional GP Practice costs relating to training.

The main barrier reported by key informants related to difficulties in designing data collection tools to monitor the implementation of the model and assess its impact.

Evaluation: Data collection for this test of change appears to have been problematic. There was a perception by some that the GP Practice had *missed the boat* in securing HSCP and ISD support due to the delay incurred during the revisions of the original proposal.

It was reported that baseline data had been collected (relating to patient BMI, alcohol interventions, smoking advice, screening uptake, service use, anticipatory care plans, and staff awareness of community resource) but how this had been done or used, and whether or not this had been repeated, is not clear. It was also reported that the participating GP Practice had collected data on staff wellbeing and patient safety.

It was reported that participating GPs had taken a long time to design the data collection forms without a clear understanding of methodology. There was doubt their usefulness, particularly in relation to capturing the impact of upskilling the HCSW [P25]. Overall, there appeared to be some frustration about the lack of data from this test, and conflicting views were expressed concerning the level of external support available to the GP Practice.

At the time of reporting, there was no report on the analysis of any data relating to this test of change. However, it was reported that the increase in HCSW working hours had enabled the PN to

offer 15-minute appointments, which has helped address the aim of longer consultations for complex patients [25].

It was reported that unintended consequence of this test was increased staff workload and stress. The increased workload was associated with data collection requirements. One key informant described this as '*astonishing*' [P25]. The increased stress was associated with concerns about the loss of some future funding for the HSCW as a consequence of the introduction of the new District Nursing community phlebotomy service [P25].

Key learning highlighted the need for clear communication between those defining the roles and responsibilities for new types of workers with the:

- professional bodies of staff who traditionally hold these roles and responsibilities
- HSCP in order to learn of pending service developments that may have similar roles and responsibilities.

It also highlighted the need for clear communication with the:

- HSCP during the implementation of the test in order to make best use of resources to help design and undertake evaluation of its impact.

Ease of implementation, likely sustainability and future roll out: with due consideration to the above key learning, this test of change was considered relatively easy to implement i.e. its implementation did not rely on prolonged training periods or mentoring by clinical staff. It is not known if the test GP Practice subsequently incorporated the extended HCSW role into routine practice, but it was suggested that this would require additional investment by the HSCP. The key stakeholders for future rollout of this service development include GP Practices and HSCPs. Additional stakeholder for future rollout may include NES or vocational training institutions.

3.7.6 ADL Smartcare

Rationale and description: This test of change was identified in the context that GPs were increasingly being asked about local sources of support with which they had difficulty keeping up-to-date. Consequently, it was believed that people did not always access appropriate self-management resources, resulting in reduced patient independence, longer-term outcomes and higher use of GP time. ADL Smartcare, a commercial company with which Newcastle University was affiliated, was identified as a supplier of an on-line information tool designed to help people find the right products, services and activities at the right time to prevent age-related functional decline. It was planned that this test would involve 1 GP Cluster, 4 GP Practices, and 20 GPs serving a combined patient population of 29,184. Whilst this was a potential new service development for Inverclyde, it drew on the experience of NHS Lanarkshire where ADL Smartcare was used as a *key component* of patient IT.

Anticipated outcomes. The overall aim of the proposed test of change was to free up consultation time within GP Practices by introducing a system designed to help patients see the right person or service first time. In addition, the test aimed to give people in Inverclyde direct access to an online tool for self-assessment, which could then signpost them to the most appropriate self-management information or services. The expected outcomes of the ADL Smartcare test of change were:

- increased self-management of non-acute conditions.
- reduced dependence on GP Practice services
- direct patient access to some Aids to Daily Living (ADL)
- reduced Occupational Therapy (OT) waiting time improving timely access for those at higher risk
- access to Occupational Therapy assessment within GP Practices.
- consistent information and signposting across all 16 GP Practices, which could include shared services

There was no explicit theory of change, and the anticipated levels of impact in the short, medium or long term were not quantified.

Implementation and progress: Visits were made to other areas using the system, and a quote was obtained for using the ADL Smartcare online system. The investment required was described as significant, and the system had limitations in relation to the overall aims of Inverclyde. Whilst some aspects of the system were considered potentially useful, other parts would be duplicating things already in place. It was only possible to purchase the whole system as tailored versions were not an option. By December 2016, Inverclyde HSCP decided not to use the system [P15, P16]. This was partly based on a cost benefit analysis that considered not only the financial cost of purchasing the system but also the significant commitment in resources required to fully launch and embed it. It was reported that the needs of primary care relating to digital access will be explored through a wider programme for services across other care sectors.

3.8 Overview of the New Ways of Working Pilot Tests of Change

For the period 2015/2017, Inverclyde was awarded, ahead of the release of funding to other Scottish Health Boards, around £385,000 for the Inverclyde New Ways of Working Pilot. The overall aim of this was to design, implement and evaluate a number of *tests of change* designed to transform primary care. Inverclyde HSCP drove this programme of work and created an infrastructure to provide strategic direction; overarching governance and management; and support relating to finance, IT, patient/carer involvement, QI, and outcome measurement. In general, the activities associated with supporting the New Ways of Working Pilot were absorbed by HSCP existing staff. This posed challenges for the HSCP as a relatively small organisation, particularly during times of unplanned staff absence.

The tests of change were intended to complement existing work streams in Inverclyde, which focussed on Public Information and Education strategies ,and recent service developments relating to community pharmacy, mental health and care of the elderly (Appendix G).

3.8.1 Choice and design

The 6 Inverclyde New Ways of Working Pilot tests of change related to Phlebotomy, MSK Physiotherapy, ANPs, Home Visits (i Telephone Triage and ii Paramedics), ADL Smartcare, and HCSWs. Although they were intended to be transformational, the focus of some (e.g. Phlebotomy) was more operational.

The choice of the tests was based on knowledge of primary care service developments elsewhere or on Inverclyde GPs' ideas and perceptions of needs. Members of the wider primary care health team were subsequently involved on the development and implementation of the tests. Views on the extent to which these tests of change would help mitigate inequalities in Inverclyde varied. There was little evidence of patients or public involvement in the choice, design or locus of the tests. There were, however, structures in place that were likely to give patients and the public a better opportunity to influence how new models of care evolve, largely through the representation and activities of Your Voice, a well established third sector organisation with a network representing 10% of the population.

3.8.2 Implementation and progress

Each test of change was adopted by one or more of the 16 Inverclyde GP Practices on a voluntary basis prior to the introduction of GP Clusters. Consequently, GP Practices within an individual GP Cluster could be participating in different tests of change.

With the exception of the HCSW test of change about which there were a lack of available data, the progress of the Inverclyde New Ways of Working Pilot tests of change could be categorised into three broad groups:

1. projects/tests of change that were abandoned during the planning stage or early in the implementation process i.e. ADL Smartcare
2. projects/tests of change that were still in the planning stage or early in the implementation process i.e. ANPs, Home Visits (Paramedics), and MSK Physiotherapy
3. projects/tests of change that have been implemented and were either fairly well established or complete i.e. Phlebotomy, Home Visits (Telephone Triage)

The ADL Smartcare test was abandoned not only because of its associated financial and resource costs, but also because it was felt the identified need in primary care that it aimed to address might be best addressed by a wider programme for all care sectors.

Generally, tests that were still in the planning stages or in the early stages of implementation required a long lead in time for staff recruitment and training, for the development of competency

frameworks for new roles, and for contractual and governance arrangements to be put in place. In addition, these tests generally required significant input from GPs involved in training and mentoring new staff in these new roles in primary care.

By contrast, the tests that had been implemented and that were either complete or fairly well established were based on refinement of the roles of existing staff and did not require prolonged training or mentoring from GPs.

3.8.3 Evaluation and key learning

There is some evidence that the aspirations of each test of change work stream group were not driven by the overall 'Driver Diagram' that had been developed to describe the aim of each test of change and the measures that could be used to assess the impact of each. Key informants explained that there had been pressure to get projects started and gather results quickly, which resulted in the omission of the pre-project stage of designing the data collection method. This compromised the QI process (described as putting the '*cart-before-horse*'). For some, the scale of and the speed by which the tests were implemented along with their data capture requirements was overwhelming.

Nevertheless, the aspiration was to audit improved capacity, access and quality of service. However, the specific objectives were not always described, and information on data sources for measures of short-term outcomes (e.g. released capacity) were generally not articulated. Moreover, it was not always clear how any achieved clinical capacity would be used and, even when it was, the data sources to measure activities relating to this was not specified.

In addition to the difficulties relating to defining outcomes and potential data sources for short-term outcomes, significant difficulties were experienced that related to data extraction and collection. A major barrier was the limitation of existing GP Practice electronic information systems, which are routinely used to capture and feedback data on a range of activities of the GP Practice team. For some cases, new *read-codes* had been created to capture new activities undertaken in participating GP Practices, but this was not commonly reported. Consequently, paper record systems were designed and implemented to capture activity relating to the different tests of change. It was suggested that the less commonly used web-based GP information system might lend itself better for retrieving activity data, but that GP Practice staff would require training in its use.

The challenges associated with capturing activity data faced by GP Practices cannot be underestimated given the context of concurrent national (GP Clusters and pharmacy) and local (older people and mental health) primary care developments. A participant of the Phlebotomy test of change described having to collect '*thousands of pieces of paper*' for manual data entry [P22]. This effort was likely to have been magnified for GP Practices participating in more than one test of test. Against this background, there was no evidence of pre-implementation project work that aimed specifically to standardise the identification, recording and interpretation of data within and between GP Practices participating in the tests of change (i.e. to ensure that different members of

the team did this in the same way and that there was consistency between participating GP Practices). Over time, similar work would be required to ensure consistency of practice. This work is essential to allow meaningful comparison of data overtime for measuring impact.

There were also challenges associated with the sharing of data between organisations, which may have been alleviated if the Scottish Primary Care Information Resource (SPIRE) had been further on in development.

3.8.4 Sustainability

It was suggested that there was considerable enthusiasm for some tests of change, such as the MSK Physiotherapy and ANP, but GP Practices were not considering incurring the associated costs themselves. At the time of reporting, there was a lack of clarity on the future funding source for employing these new practitioners as well as for existing staff, particularly clinical, for the significant input required during the training and implementation of the test of change.

P1

4. Conclusion and Key Learning

The broad aims of the Inverclyde case study were to:

1. understand the local context of Inverclyde in which the new models were being tested
2. identify the models of primary care that were being tested including the early piloting of GP Clusters
3. explore which models seemed to be working well and why, which were not working well and why, and which might be the 'best bets' for future investment and roll out.

The **local context** has been described in detail in the full report and a feature of Inverclyde is its discrete locality, and a history of good working relationships and integrative working. Because of this, establishing new ways of working and testing new models of primary care may be easier in this locality than in many others in Scotland.

The **models of primary care** tested in Inverclyde have been described including the early GP Cluster piloting. Inverclyde embarked on 6 *tests of change*, plus complementary work around community pharmacy, mental health and care of the elderly.

GP Clusters: Generally, it is too early to draw conclusions about what is working well or not. As the GP Clusters were still at an early stage of development, no QI project has been carried out by all GP Practices either within a single GP Cluster and across all GP Clusters. The intrinsic QI work of the GP Clusters is likely to emerge over the next 12-24 months depending on national contractual obligations (still to be announced). The importance of the extrinsic role of GP Clusters, especially in engagement with IJBs, is uncertain yet is likely to be of crucial long-term importance. This was a key concern raised at the 'Quality of QOF' workshop held by the Scottish School of Primary Care in March 2016:

"A key message was that if the external role of GP Quality Clusters is not quickly developed, there is a risk of new arrangements with Integrated Joint Boards (IJBs) moving forward without GP involvement, worsening the engagement of general practice with the rest of the NHS. This would be detrimental to NHS working across systems, the 2020 vision and to integration of health and social care" [26].

The Inverclyde piloting of GP Clusters suggests that this remains a crucially important area to tackle.

The **Inverclyde New Ways of Working Pilot** was driven by the HSCP, which created an infrastructure to provide strategic direction, overarching governance and management, and support relating to finance, IT, patient/carer involvement, QI, and outcome measurement.

The 6 tests of change piloted in Inverclyde have involved one or more GP Practice within a single GP Cluster or across GP Clusters. These related to Phlebotomy, MSK Physiotherapy, ANPs, Home Visits (Telephone Triage and Paramedics), ADL Smartcare, and HCSWs.

The choice of the tests was decided by the HSCP in collaboration with Inverclyde GPs based on perceptions of needs. Other members of the primary care team were subsequently involved in developing and implementing the tests. There was little evidence of patient or public involvement in the choice, design or locus of the tests. Views on the extent to which these tests of change would help mitigate inequalities in Inverclyde varied.

Progress of projects/tests of change could be categorised into 3 broad groups:

1. projects that were abandoned during the planning stage or early in the implementation process i.e. ADL Smartcare
It was subsequently believed that the primary care need might be best addressed by a wider programme for all care sectors.
2. projects/tests of change that were still in the planning stage or early in the implementation process i.e. ANPs, Home Visits (Paramedics), and MSK Physiotherapy
These required a long lead in time for staff recruitment and training, for the development of competency frameworks for new roles, and for contractual and governance arrangements to be put in place. In addition, these tests generally required significant input from GPs involved in training and mentoring new staff in these new roles in primary care.
3. projects/tests of change that have been implemented and were either fairly well established or complete i.e. Phlebotomy, Home Visits (Telephone Triage)
These were generally based on refinement of the roles of existing staff and did not require prolonged training or mentoring from GPs.

It was not possible to categorise the HSCW test of change due to the dearth of data on the model that was finally implemented, its progress following implementation, and outcome on its completion.

The challenges associated with capturing activity data faced by the Inverclyde GP Practices cannot be underestimated within the context of concurrent national (GP Clusters and pharmacy) and local (older people and mental health work) primary care developments.

All projects had substantial unmet data support needs relating to identifying relevant outcome measures and sources of data, recording and collecting data, and accessing and analysing data. The perceived urgency to implement the New Ways of Working Pilot tests of change resulted in omission of important QI processes that would have addressed some of the difficulties encountered relating to defining and accessing data to measure change.

The sustainability of the most tests of change requires clarity on the future funding source for staff employed in new roles as well as for existing staff, particularly clinical, from whom significant input is required during their training and implementation periods.

It should be noted that the present SSPC case study was carried out during a 6-month period (from October 2016 to March 2017) and concerned the immediate 17-months period after Inverclyde received funding to pilot new models of primary care (September 2015 to March 2017). This short timeframe, during which most tests were not fully implemented, meant that it was not appropriate to report systematically on all areas covered by the SSPC Evaluation Framework (Appendix A).

The other case studies that are currently being undertaken by SSPC in other Health Board areas have a longer time-period of 15 months, and will concern activities during the 24-month period (April 2016 to March 2018). Whilst this longer timeframe may allow more comprehensive reporting, the time required for developing the necessary trust and relationships and for developing and implementing various tests of change, means that the overall SSPC evaluation will provide a short-term picture of primary care transformation and integration.

Key Learning

- GP Practices require substantial help with planning, implementing and evaluating new ways of working including GP Clusters. This includes improved support for data collection, extraction and analysis. The recent expansion of Local Intelligence Support Teams aims to provide this.
- The intrinsic role of GP Clusters in relation to improving the quality of care for their combined patient populations through peer-led review requires time to develop new trusting relationships.
- The extrinsic role of GP Clusters in relation to reorienting the NHS in Scotland towards integrated new models of primary care requires closer collaborative working and practices, particularly with IJBs.
- Care in the development and planning stages is required to ensure that people living in and staff working in high deprivation areas are fully represented when GP Clusters and new ways of working are formed.
- Early engagement with the wider primary healthcare team and service users in the planning, design, implementation and evaluation stages of new models of working should be considered an important lesson for the future.
- Tests of change that need significant new investments require early rigorous appraisal for local suitability before attempts are made to implement them, as the local context is very important.
- Clear communication and co-ordination between all services involved in introducing tests of change are required in order to avoid duplication of effort.
- Much longer-term evaluations are required to inform fully the progress made in terms of robust patients and service outcomes. These should be planned well in advance and where possible undergo an evaluability assessment prior to evaluation being started

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Appendices

- A. SSPC Evaluation Framework (v.1.0, 25072016)
- B. Context Interview Questions Outline
- C. Site Interview Questions Outline
- D. Participant Information Sheet
- E. Consent Form
- F. Data sources and variables to be used for measurement and evaluation – Tests of Change
- G. Inverclyde Complementary Work Streams

Scottish School of Primary Care National Evaluation Framework for New Models of Care Summary

The Primary Care Transformation Fund (PCTF) has £20 million designated to new models of care in primary care, which is part of a £60 million fund covering additional aspects of care such as mental health, community pharmacy, and out-of-hours care. The Scottish School of primary Care (SSPC) has been awarded £1.25 million to help evaluate these new models of primary care. Four Health Boards across Scotland have already received funding over the last 1-3 years for specific projects on new models of care, and these have recently also received an additional year of funding (as from April 2016); a larger number of new projects that will be funded to start later this year on the basis of new bids put in by all the Health Boards in Scotland. In addition, Inverclyde has received funding to pilot new ways of working and the new GP Contract, including GP practice clusters, and this work is in progress.

Evaluation Framework

The evaluation framework proposed by SSPC consists of two phases; firstly the identification of the new models of primary care being funded by the Scottish Government (SG) across Scotland, what their components are, how they are expected to work (theory of change) and what the expected short, medium and long-term impacts or outcomes are. The second phase consists of identifying the impacts, learning, spread and sustainability.



The evaluation will be carried out at two levels, national and local. The **national** evaluation will include the Scottish Governments own theories of change and expectations of impact, and those of the funded projects at Health Board level. Evidence of Impact, learning, spread and sustainability will be mainly gathered through a limited number of selected **local** in-depth case studies ('deep dives') carried out by SSPC member Universities in different Health Board regions, together with rapid literature reviews of the best evidence for key aspects of the interventions. This will be

complemented with the available evidence from the other sites not selected for detailed case study. In this way, an integrated and detailed sharing of learning will be produced which will be of **national as well as local relevance**.

How it will work

SSPC works on a hub and spokes model. The small core SSPC team have already been scoping the remit of the renewed and new bids, drawing of evaluability assessment methodology. We will suggest to the SG sites for the 'deep dive' case studies, based on our assessment of evaluability. These will be distributed across Scotland, and we will ask our SSPC members in different regions to bid for the evaluation of these local sites. The senior researchers in each academic unit will then lead the evaluation of their site with their own chosen team. However, the core team will ensure close co-ordination with the SSPC hub and also between evaluation sites, so that learning is shared and all members will contribute to the integration of findings to inform the national picture. SSPC core staff will additionally continually collect information and learning from the non-case study sites during the course of the evaluation, to complement the case study findings. Thus a fully integrated final national report will be produced, as well as the detailed reports from the chosen local sites. In addition, SSPC will contribute to the evidence-base for the components of the interventions by carrying out a series of literature reviews.



SSPC will also work collaboratively with other key organisations on available national performance data on patient satisfaction and 'big data' (such as unplanned hospital admissions), working in partnership with other key organisation such as central analytical services, NHS Health Scotland, and so on.

Context-Specific Interview Questions Outline

1. Can you tell me what you know about the history/background of GP Clusters in Scotland?

Examples of prompts:

- *In your view, how did the concept of GP Clusters emerge in Scotland?*
- *What evidence informed the introduction of GP Clusters in Scotland?*
- *Were there influences from within/outwith the UK (such as Welsh, northern European countries, Canada?)*
- *Was there evidence that you know of for cluster working (from within the UK or outwith the UK)?*
- *How has that evidence influenced policy development in Scotland?*
- *How did the concept of clusters become part of the GP contract? (how and at what point was it suggested that cluster working can form part of the GMS contract?)*
- *How does the concept of GP clusters fit in (or not) with the general direction of Scottish Government current policy?*

2. In general, do you think the new models/GP Clusters will help to reduce health inequalities?

3. In your view, what do you think the policy makers hope to achieve with the introduction of GP clusters?

- *Do you think they will achieve this through GP Clusters? Why?*
- *How does this fit with the wider integrated care agenda?*
- *Do you think that the activities of GP Clusters will have any impact on addressing the health inequality agenda?*
- *How do you think GP Clusters/ GP Cluster work may develop in future?*

4. We understand that negotiations are ongoing but what is your understanding of the plans for cluster working and the new Scottish GMS contract?

Examples of prompts:

- *How do you see the internal role of clusters working?*
- *What do you think will be the external role of GP Clusters in relation to IJB and HSCPs?*
- *How do think work of GP Clusters can be measured (both internal and external roles)?*

5. Do you have thoughts on what the steps will be in achieving overall policy aims (in the short through to the long term)?

FOR EXAMPLE, HAVE YOU SEEN OR DEVELOPED ANY DRIVER DIAGRAMS, LOGIC MODELS OR THEORIES OF CHANGE? BY WHAT MECHANISM DO YOU THINK THE DESIRED OUTCOMES CAN BE ACHIEVED?

6. What do you believe will be the main barriers to GP Cluster work?

Examples of prompts:

- *Local Context – existing relationships (within and between Practices/and with others involved in integrated care agenda)*
- *Wider Context – GP morale/resistance to change/recruitment/retention/workload*

7. What do you believe will be the main facilitators to GP Cluster work?

Examples of prompts:

- *What sort of guidance will GPs need in relation to GP Clusters?*
- *What sort of support is available or will become available for clusters working?*
- *Do you think additional support is required? (prompt only if not mentioned: financial, training in QI, IT, leadership and group facilitation?)*

8. Can I now ask some questions specifically in relation to the Inverclyde New Ways of Working Pilot?

Examples of prompts:

- *How and when was it decided to use Inverclyde as a pilot for cluster working? / how did the shift to working in clusters come about? / at what point?*
- *Why in your view was it decided to test cluster working in Inverclyde?*
- *Was the previous way of working in Inverclyde similar to the way they are now working in GP Clusters? (Did it look as if they were working in a cluster already?)*
- *In what way (if at all) did the pilot in Inverclyde inform/ will inform the development of the GMS contract?*
- *What do you expect Inverclyde to achieve by March 2017? And beyond?*

9. Is there anything else you would like to raise about GP clusters?

Conclude interview:

- Thanks for giving time and confirm willingness to be re-contacted for potential follow-up interview.
- Determine whether there is anyone else we should contact as key informant
- Determine if able to provide additional relevant documentation

Site-Specific Interview Questions Outline

1. **Why was Inverclyde chosen to test new ways of working for the new GP contract?**
 Probing questions if response does not elicit:
 - Who were the main drivers for the Inverclyde pilot?
 - Does the pilot build on any existing work within Inverclyde?
 - How wide was the general support (but particularly from GPs) for the pilot?
2. **In general, do you think the new models of care that Inverclyde are testing will help to reduce health inequalities?**
3. **Can you describe your role in the new models of care that are being tested in Inverclyde?**
 In relation to EACH, probing questions if response does not elicit:
 - Why was this model/test chosen,
 - Who were the drivers,
 - What do you do, when did this start, has your role evolved/changed,
 - Who else is involved, what are their roles and how were these determined, have their roles evolved/changed over time
 - Who is not really involved who do you think should be
 - Was there any patient/public involvement in the choice or design of the new model of care
4. **How was the formation of the new model supported (in terms of resources and processes)?**
 - Has this been the same across different practices and clusters?
5. **In relation to managing the new models of care, what governance arrangements/ structures are in place?** Has this been the same across the models in which you are involved and across different practices and clusters?
6. **What do you think has facilitated and/or hindered the development/implementation of the models of care in which you are involved?**
7. **Has any of the new models impacted (positively and negatively) on the workload (for individuals and practices)?**
8. **How does each of the new models of care in which you are involved fit the overall aims/objectives of the:**
 - Inverclyde clusters,
 - Integrated Joint Board, and
 - Health Social Care Partnerships?
9. **What 'new ways of working' is Inverclyde currently trying out?**
 In relation to EACH, probing questions if response does not elicit:
 - Was the choice of this build on existing work in Inverclyde or influenced by evidence from elsewhere?
 - Have patients/carers/public been consulted about the choice/design of any the models?
 - Which clusters/practices are involved in this? ...and why?
 - What progress has been made so far?
 - What are the expected impacts of this (in short/medium/long term - by the end of March 2017, end of 2017 and beyond)? Are these realistic/ achievable?

- 10. How will these expected impacts be measured? Does this require existing and/or new data, and how will these be collected and by whom?**
- Will support be required to collect data to inform the measurement of impact?
 - Have quality standards/measures of success for this been agreed? What are these, how were they identified and by whom,
 - Are there any plans at the moment for how 'identified success' might be sustained?
- Ask for copies of job descriptions for appointees to new models, data collection tools, and reports of any baseline or subsequent analysis**
- 11. Has Inverclyde tried/considered testing other models that have either not 'got off the ground' or which didn't work so well?**
- 12. What other 'new ways of working' is Inverclyde planning to test?**
In relation to EACH, probing questions if response does not elicit:
- How does this fit the overall aims/objectives of the Inverclyde clusters?
 - Was the choice of this build on existing work in Inverclyde or influenced by evidence from elsewhere?
 - Which clusters are likely to be involved in this? and why?
 - What progress has been made so far, and what are the plans for next 6, 12, 18 months?
 - What are the expected impacts of this (in short/medium/long term)? Are these realistic/achievable?
 - How will these expected impacts be measured? Will this require existing and/or new data, and how will these be collected and by whom?
 - Will support be required to collect data to inform the measurement of impact?
 - Have quality standards/measures of success for this been agreed? What are these, how were they identified and by whom,
 - Are there any plans at the moment for how 'identified success' might be sustained?
- 13. In terms of achieving the overall aims in the short, medium and long-term, do you have thoughts on what the steps will be in achieving these outcomes?**
FOR EXAMPLE, HAVE YOU SEEN OR DEVELOPED ANY DRIVER DIAGRAMS, LOGIC MODELS OR THEORIES OF CHANGE? BY WHAT MECHANISM DO YOU THINK THE DESIRED OUTCOMES CAN BE ACHIEVED?
- 14. Is there anything else you would like to raise about the Inverclyde new models of care?**
- 15. Can you tell me about the wider integration agenda of the HSCP? Anything specifically on the new models of care including the tests of change?**
- 16. Explore what is working well, what has not worked, and why?**

Conclude interview:

- Thanks for giving time/confirm willingness to be re-contacted for a potential follow-up interview.
- Determine whether there is anyone else we should contact as key informant
- Determine if able to provide additional relevant documentation (job descriptions, data collection tools and data analysis reports)

Participant Information Leaflet
Evaluation: Inverclyde GP Clusters: New Ways of Working

The Scottish School of Primary Care (SSPC) has been asked by the Scottish Government to undertake an evaluation of the Inverclyde GP Clusters: New Ways of Working pilot. It is important to note that whilst the evaluation is funded by the SG, the SSPC evaluation is independent. You are invited to participate in the evaluation. Before you decide if you would like to take part, please read the following information that tells you more about what this involves.

❖ **Why have I been chosen?**

You have been identified as a key stakeholder involved in quality planning and/or improvement at practice, cluster, locality or national level. Your views will help us to better understand how this new model of care is working and what lessons have been learned about establishing and sustaining it.

❖ **Do I have to take part?**

The study is voluntary and you do not have to take part. If you do decide to take part, you will be asked to sign the study consent form (copy enclosed). You will be free to withdraw consent at any time, and you do not have to provide a reason for not wishing to continue.

❖ **What is the aim of the evaluation?**

The evaluation aims to describe the progress in implementing this new model of care, and to explore the inter-relationship between it and other integrated care developments, such as work of the Health and Social Care Partnerships (HSCPs) and Integrated Joint Boards (IJBs). Ultimately, we are seeking to identify what has worked well and to identify areas that might be improved (if any), if this model of working was to be sustainable more widely

❖ **What will happen to me if I take part?**

If you do agree to take part, you will be asked to meet with a SSPC researcher for an interview, which is expected to last between 45 and 60 minutes. You will be asked at the beginning of the interview if you have any questions about the study and, with your permission, we will record the interview to ensure that we retain an accurate account of the discussion. If you do not wish the interview to be audio recorded please indicate this to the researcher and omit this part of the consent form. Depending on the timing of this interview, you may be asked to participate in a second interview to provide an update.

❖ **Will my taking part in this study be kept confidential?**

Our discussion will remain confidential. When we use the information from the interview, no names will be mentioned if we quote something that you say in future reports or publications. However, some participants may be easier to identify due to their unique role or profile. In recognition of this, quotes that may be attributable to a participant due to their unique or key role will not have a role

identifier attached, and if this is not sufficient to ensure anonymity then these quotes will not be used.

❖ **Why should I take part in the study?**

Your views are important to finding out how this model contributes to managing quality data and improving the quality of health and social care services. Additionally, your views will help us understand better what those charged with planning and implementing new models feel about their data and support needs.

❖ **What will happen to the results of the research study?**

The results from the interviews will be used by the research team to provide feedback to stakeholders. We may also develop interesting findings for publication in academic journals.

❖ **Who is organising and funding the research?**

The Scottish Government is funding this research and it has been approved by a Research Ethics Committee at the University of Stirling. The study is being led by Scottish School of Primary Care.

❖ **Would you like more information?**

More information about the study is available from: Dr Bridie Fitzpatrick, University of Glasgow
Tel: 01413308357 Email: Bridie.Fitzpatrick@glasgow.ac.uk

An independent advisor, who is not part of the research team, has also been appointed to give impartial advice or to discuss any complaints in relation to the conduct of this study. The contact details for this person are:

Dr Andrea Williamson, University of Glasgow. Email: andrea.williamson@glasgow.ac.uk

Consent Form
Inverclyde GP Clusters: New Ways of Working

Researchers:Please
initial
box

1. I confirm that I have read and understand the Participant Information Leaflet dated 06.12.2016 (version 1.1) for this study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time during the study period, without giving any reason. If I decide to withdraw from the study before its completion, I understand that my data will be not be used.

3. I understand that the data I provide will be depersonalised and that electronic versions of these will be stored on password protected University of Stirling and University of Glasgow computers.

4. I understand that if some of my views are quoted in a report or published papers, this will be done in a way that ensures that I cannot be identified.

5. I understand that, subject to my permission, the interview will be audio recorded for the purpose of the study and that any recordings will be destroyed at the end of the study. Depersonalised transcripts of the recordings will be kept for a period of 10 years to ensure accurate reporting in any future publications.

6. I agree to take part in the above study.

Name_____
Date_____
Signature_____
Name of Researcher
taking consent_____
Date_____
Signature

DATA SOURCES AND VARIABLES TO BE USED FOR MEASUREMENT AND EVALUATION					
TEST OF CHANGE					
HOME VISITS	1. Template completed by practice manager.	2. Baseline data collection.			
	Date	PracticeCode			
	CHI	CHI			
	Was Patient Triaged (Y/N)	Sex			
	Emergency (Y/N)	ReasonRequest			
	Eligible for home visit? (Y/N)	DateHV			
	Home visit by GP or Practice Nurse (GP/PN)	Activity1			
	Arrange appt at practice with GP or Practice Nurse (GP/PN)	Activity2			
	Urgency (Urgent/Routine)	Reason			
	Could a different professional respond? (Y/N)	OtherProf			
Were you happy with how your call was dealt with? (Y/N)	TimeEstimate				
PHLEBOTOMY	1. Paper form completed by GP	2. Order Comms outputs from GP IT system (via NHS GG&C GP IT team)	3. Treatment room activity reports (from treatment rooms)	4. Phlebotomy patient survey (paper form)	5. Staff survey (online)
	Practice code	Date	Health centre	HealthCentre	In your view, was this change of practice beneficial to patients?
	Date	Health Centre	Month	FirstUse	Did this service reduce workload for you in terms of bloods?
	CHI number	PracticeCode	Week beginning	NormalBloods	Did you experience any

						difficulties during this test of change? (please detail)
Other Prof	Board			Post Op Dressing	OpeningTimes	Were the timings of the clinic suitable (9am - 1pm Monday - Friday)
Notes	HSCP			Removal of Sutures	Benefits	If this service were made permanent, would you foresee any problems/difficulties (please comment/detail)
Request Date	BISc_GP_OCS			Ulcer Dressing	Improvement	If this service were made permanent, is there anything that you feel would improve the service? (please detail)
Stored as excel spreadsheet	BISc_Total			Basic Dressing		Do you have any other comments? (please detail)
	BISc%			Injections		
	Mic_OCS			Venepuncture		
	Mic_Total			Other Specimens		
	Mic_%			Ear Care		
				Cardiograph		
				Ortho		
				Sharps Boxes		
				Doppler		
				Urine Test		
				Blood Pressure		
				Minor Casualty		
				Minor Surgery		
				Other		
				Advisory/Supervision		
				(Number of activities carried out)		

MSK	1. Baseline: data collection (spreadsheet)	2. MSK Physio data collection form (spreadsheet)	3. GP practice: appointment information	4. Outpatient referrals & appointments
	Practice Code	CONSULTATION DATA	Extracts from GP IT systems	SCI Gateway (from NHSGG&C info team)
	Problem	Patient Initials	MSK referral source (read codes)	SMR00 database
	OutcomeA	CHI	MSK1/MSK2 coded patients (single MSK/multiple and other problems)	
	OutcomeB	Surgery		
	Count	Consultation date		
		Referral source		
		Patient type		
		Problem area		
		Symptom duration		
		Medication required		
		Fit note required		
		Imaging		
		Bloods		
		HEP		
		NHS Inform		
		Splint		
		Walking aid		
		Manual therapy		
		Injection		
		MSK Physio referral		
		Podiatry referral		
		Onward referral		
		Referral priority		

Inverclyde Complementary Work Streams

Inverclyde has a number of existing work streams that crosscut and support the New Ways of Working Pilot tests of change.

Patient Information and Communication

Patient education and engagement was considered key to the success of Primary Care transformation, including the New Ways of Working Pilot tests and, to some extent, GP Cluster working, as there are firmly embedded public expectations that the GP is the first point of contact for all health issues. In deprived areas, psychosocial issues also contribute to a high proportion of consultations, often by frequent attenders [P24, P26]. Key informants acknowledged that the NHS and councils have probably reinforced these expectations “*people know they have a right to go to their GP for paracetamol*” [P23]. However, some key informants believed that patients often did not realise they could directly access services such as social work or optometry [P24, P26].

Without exception, key informants believed that trying to change this culture would be a massive undertaking and require sustained effort over a long time. The Inverclyde Public Involvement Group is focusing on this issue. One key informant highlighted the uncertainty of the congruence of the perspectives of service users and service providers [P16]. Knowing this might assist in engagement work.

To date the work of this group has included holding education sessions for Primary Care and other independent contractors in November 2016, and for GP Practice support staff in December 2016. These sessions, labelled Working Better Together, aimed to improve signposting to appropriate services.

Your Voice, a third sector public partnership organisation which is represented on the IJB, is considered the principal means of public engagement:

{Your Voice is] our means of engaging with the public, and they have a number of kind of sub-groups ... so they were involved from the outset ... em and sit ... they sit on the IJB and em they sit on a number of our other management groups, so they have been heavily involved ... and through the strategic planning group as well, right, there's been discussions there and that they feed in in terms of ... one of our work streams is around how to change public behaviour, so they're working very very closely with us just now round ..., so, yeah, there's been quite a lot of public involvement.

P15

This organisation was commissioned by the HSCP to raise public awareness of New Ways and elicit patient feedback. This organisation has 11 established work streams including Long Term Conditions, Carers and Mental Health; each has a network of Advisory Groups of patient representatives, peer support groups and volunteers. The organisation estimates that it has a reach of over 8000 people,

or 10% of the Inverclyde population [P26]. Work has included presentations to GP Practice Protected Learning events, facilitating open meetings or 'conversation cafes' for patients within surgeries and elsewhere, and a publicity campaign involving posters and other literature including on social media. Your Voice has used a number of strategies to engage the public in the New Ways of Working Pilot, including targeted contact with people, and their families, within the network representing those living with long-term conditions, mental health issues, addictions, disability and older people. Your Voice has acknowledged that patient advisory groups are often unrepresentative, but argue that there are many people who are just not interested and the best approach is to continue working with those who are [P26]. In support of this view, it was reported that, in collaboration with a GP Practice, Your Voice organised a meeting to which 500 patients had been invited to discuss the New Ways of Working Pilot tests of change. Attendance was disappointing, with only three or four patients attending. Several key informants agreed that this is perhaps not surprising as it has historically been extremely hard to engage patients in change, particularly those in deprived areas unused to being consulted [P24, P26, P21, P25].

To broaden engagement, Your Voice has also worked with local groups such as councils, church groups and voluntary groups. The initial focus of these activities was to identify those who frequently use healthcare services. Your Voice had previously engaged with local GPs and other service providers on social prescribing initiatives:

worked now with about...a dozen GPs locally, ...if GPs know there was these Community Connectors and that connecting into communities in terms of social prescribing...and also with the Pharmacists ... to let them know that there's optionsreferring onto Community Connectors so they can connect them into their communities

P26

It was generally expected that increased patient and public involvement would evolve over time:

more patient involvement later on .. more planned and I think it's ... we're now ... looking at signposting and trying to change how we signpost em ... you know, using that sort "Right Person, Right Time" approach ... and trying to unify it across the HSCP area ... there was a publicity campaign ... the Your Voice group has ... but they are also looking at reviewing the impact ... again some qualitative work from patients, in terms ..of how ... what their ... what their take on it is

P16

Awareness raising is also being addressed through a large-scale publicity and public education campaign 'Choose the Right Service' which started in late 2016. Posters and other literature and online material were due to be launched in March 2017 and were anticipated to be displayed in public spaces, Health Centres and GP Practices as well as other health and social services, and cascaded electronically to all staff. The campaign will be evaluated with a view to replicating it in other HSCP areas.

Context factors which may impact on the campaign include significant local concerns about cuts to services and the possible closure of Inverclyde Royal Hospital, with some patients expressing the fear that New Ways of Working Pilot is part of a cost-cutting exercise [P26].

Several key informants felt that culture change on this scale could not be achieved by local efforts alone, and there needs to be a high-visibility national campaign, using TV and radio and led by the SG [P23, P22, P26]. One key informant felt it was disappointing that the SG has not appeared to take this on board [P23].

Pharmacy

The Inverclyde HSCP Prescribing Team used a number of funding streams to support pharmacy work and NHS GG&C also directed additional funding to enable additional pharmacy capacity in Inverclyde to support GP Practices specifically. In addition to existing pharmacy support (4.5 Whole Time Equivalent for 16 GP Practices) which was directed towards medication review and cost-effective prescribing, NHS GG&C supported the recruitment of approximately 0.5 Whole Time Equivalent pharmacists per GP Practice. The type of work that pharmacists undertook was tailored to the GP Practice needs but broadly focused on acute prescribing, immediate discharge letters and medical records; disease modifying anti-rheumatic drugs reviews which included face to face appointments and telephone reviews with patients. In addition, the pharmacists in Inverclyde took part in a national pilot of electronic prescribing for pharmacists.

Data collection

Pharmacists have been pro-active in collecting their own data (quantitative and qualitative). They conducted a baseline review of GP workload in relation to prescribing and a mid-point review to evaluate how much GP time was freed through pharmacy input. There is an intention to conduct an additional review. They also collected information on patient medications that they have started / stopped. The qualitative part of the evaluation included satisfaction surveys of GPs, other GP Practice personnel, prescribing staff and patients. It was reported that preliminary data analysis showed that off-setting of GP work had occurred. However, at the time of reporting, it was not known if there had been costs/time savings as the pharmacists tended to have longer checking procedures for the medication reviews but this potentially provided additional patient safety benefit [P10, P13]. There was a perception that the work of the pharmacist on immediate discharge letters, which could involve contact with secondary care colleagues) not only contributed to patient safety but also improved the interface between primary care and secondary care. In general, it was believed that the work of pharmacists within GP Practices reduced workload for GPs and did not generate significant additional work [P13, P16]. The evaluation of the pharmacy pilot will be reported separately by NHS GG&C.

Facilitators and barriers to the pharmacy work in Inverclyde:

- Initial difficulties with electronic prescribing meant reduced pharmacist efficiency, but this has been remediated by the introduction of electronic prescribing.

- There were no issues with recruitment of pharmacists in Inverclyde but this may be an issue if similar level of pharmacy input is required across the board.
- The extent of input to pharmacy in Inverclyde is said to be 'aspirational' [P11] rather than typical of the rest of Scotland. Sustainability would depend on continued funding from SG.
- The existing trusting relationships between pharmacists and GPs in Inverclyde facilitated the transferring of responsibilities.
- The extent of pharmacy input and the team working approach employed (more than one pharmacist inputting to GP Clusters), allowed the development of skills across the pharmacy team with experienced pharmacists supporting less experienced one. It enabled the development of a more sustainable model of pharmacy provision to GP Practices.
- After an initial delay, permission was given for the pharmacists to use an extract of GP data and they are using READ codes.
- Independence on bespoke data sources as they collate other data from PRISMS or their Central Prescribing data base.

In the near future, some data such as Formulary Compliance, cost per weighted patient, respiratory prescribing, analgesic prescribing (information already given to the GP Practices at annual review) could also be given on a GP Cluster basis. In the longer term, sharing what has worked of the new processes, could further off-load the GP workload e.g. allowing time for pharmacist to review who is on the Acute Prescribing list and moving some patients to Repeat Prescription list (GP Clusters might agree locally on what can go on Repeat and for how many repeats) which could cut down variation and pharmacist workload.

Mental Health

Inverclyde HSCP initially considered a test of change for mental health as part of the New Ways of Working Pilot. However, it was felt that its existing mental health work stream had achieved recent major improvements in out-of-hours mental health service provision and the current system of embedded Primary Care Mental Health Nurses was already of a high standard.

... I think ... we'd identified that there had been significant improvements in some of ... the mental health provision in the area ... and so, I mean, key things being ... out-of-hours provision of Mental Health Services, which made a big difference ... and also the introduction of a Crisis Response Team, which basically is a service that can ... em ... you know, pick up sort of "crisis" patients, or suicidal patients, at very, very short notice, which is a gap we had before ... and I think the introduction of those things has kind of meant that eh ... the GPs didn't really feel that Mental Health was a priority for Tests of Change.

P24

GPs were very supportive of the current situation which seemed to be working very well:

... I don't think, for example, the Primary Care Mental Health Nursing input is going to disappear any time soon, because I think it's become such an integral part of how we work

now, both for Mental Health and for Primary Care...if you've been used to working with the Mental Health Nurse in your Practice and you see the benefits of having them on site

P24

The role of the Community Connectors was also raised as being helpful in terms of patients with mental health problems and that this could reduce pressure of the GPs:

we have lots of evidence that show, like particularly in the area of older people, loneliness, mental health, that go to their GP for social...whereas they can get that from peer support and other things in their communities, by accessing...we have a Community Connectors project, so it's about linking in...we're commissioned by the Health and Social Care Partnership as a pilot,... we've worked with over two hundred people in that seven months in connecting them that maybe previously went to their GP to access primary care or social care services.

P26

Consequently, a new mental health test of change was not considered necessary.

Older People

Inverclyde has an existing Older People work stream, which is continuing to look at developing services around older people both in the community and in acute care. Developing how older people are assessed and supported within acute and the community is underway, including the introduction of an early Comprehensive Geriatric Assessment in Inverclyde Royal Hospital and consideration of how Community Geriatrician support can enhance care for older people in the community. This work supported the New Ways of Working Pilot by providing access to the right person/support at the right time in the right place. As part of this work stream, a test of change is planned to address access to services, dedicated assessment beds and time from a Consultant Geriatrician, tying in with other New Ways work (e.g. ANPs and possibly HSCW). However, this relies on filling a vacancy for a geriatrician, which (at the time of reporting) had not yet happened. There was enthusiasm about this, with one GP stating that it would fit with SG priorities of reducing unnecessary admissions and preventing delayed discharge, and that GPs had good relationships and referral pathways with Social Work and Community Health (Re-ablement, Occupational Therapists and Physiotherapists) and also with Acute Geriatric Services:

... we've got quite a good re-enablement Team in Inverclyde, who you can send an urgent referral and do a "Prevention of Admission" and they'll send OTs and Physios out that day ... and they'll get Care Packages and things ... so, I think we do have ... and there's the Acute Geriatric Services Sister... the nurse that works with them is very good

¹ <http://www.gov.scot/Publications/2016/11/7258/1>