Health Pathways implementation in South Tyneside (phase one-second report)

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July 2017

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Abbreviations used:

HP - HealthPathways

NECS - North East Commissioning Support – North East regional commissioning support

STCCG – South Tyneside Clinical Commissioning Group – NHS body responsible for commissioning health services in South Tyneside

CDHB – Canterbury District Health Board – commissioner and provider of health services in Canterbury New Zealand and inventor of HP

Streamliners – the NZ company which develops and manages the HP system and provides technical support

ST – South Tyneside

SL - System leaders– those involved in leading or managing the transformation of services and HP

GP - General Practitioners

OSS -Other support staff –includes nurses, practice managers, reception staff

1.Executive Summary

1.1 Overview

This is the second and final report of the evaluation of the implementation of HealthPathways (HP) launched in August 2016 in South Tyneside. HP is an online repository of care pathways developed in New Zealand to support decision making and patient care. The system is not currently integrated with the current clinical records system EMIS Health used by practitioners in South Tyneside, but it is understood that this functionality is currently in development.

This report builds on the first report produced in February 2017 (Appendix 1) which focussed largely on the documentary analysis of the context of the implementation of HP, along with an initial analysis of observations of the HP launch and stakeholder discussions.

The report presents the evaluation of the implementation process to date with reference to some early quantitative data on outcomes, analysed alongside the qualitative data gained from semi-structured interviews. In the report, we focus on the mechanisms affecting the implementation process and provides recommendations for the next phase.

South Tyneside as the first UK HP site, is part of a formal arrangement between the North of England Commissioning Support Unit (NECS), South Tyneside Clinical Commissioning Group (STCCG) and Streamliners New Zealand (which supports the development of the HP system). These organisations are allied with the Canterbury District Health Board (CDHB) in New Zealand, which originally developed the HP system. HP was launched to all South Tyneside Clinical Commissioning Group (STCCG) member practices in August 2016. Fifty pathways were developed for the launch, localised for South Tyneside from existing New Zealand pathways; others were pathways of care which were the same as New Zealand, except for the specific referral routes. Structured support is provided to South Tyneside from CDHB, with further support from a HP project management team, including a part time project manager, a project coordinator and 2-part time clinical editors. Streamliners provides the technical expertise. Regular governance meetings (monthly-Canterbury Oversight Group), training and education meetings have been put in place. Resources to develop, implement and maintain pathways have been allocated. HP had been operational for 4 months when the evaluation process was started (initial documentary analysis). Interviews and focus groups were carried out from the 6 month point and HP had been in place for 9 months at the time of this report.

At the time of writing there were 116 live pathways, some localised to South Tyneside services and another 57 pathways were in development.

Evaluation of the HP implementation was undertaken by a research team at the University of Sunderland from December to May 2017. The evaluation used a realistic evaluation approach which emphasises the mechanisms through which the implementation of systems achieves outcomes in specific contexts. It seeks to find out ‘what works well for whom and in what circumstances’ using ‘context, mechanism and outcome configurations’ (Pawson and Tilley 1997).

The implementation of HP in South Tyneside is the first in England and the realistic evaluation approach taken aimed to learn from the implementation process and to understand ‘What works, for whom and in which circumstances?’ (Pawson and Tilley 1997).The aim was also to develop a state of readiness ‘checklist’ for future sites based on the learning from the evaluation. Mixed methods were used to gather a wide range of range of quantitative and qualitative data.

Quantitative data was derived from the HP system via Google analytics and qualitative data from semi-structured interviews and focus groups and observations of project meetings. Participants (n=77) were GPs, district nurses, practice nurses, practice managers, health care assistants, secondary care clinicians and 'system leaders' (clinical and non-clinical who were responsible for leading the development and rollout of the HP system). Some were users of the system, others were non-users at the point of interview.

1.2 Summary of Key Findings

1.2.1 Governance of HP and the transformation agenda

There was clear evidence of the strong commitment of SLs to the implementation. Most frontline participants interviewed appeared to be willing to support the implementation of HP, the reason being because they saw it would aid decision making and referrals, rather than for 'transformation'. Change fatigue was cited as a reason for a lack of interest by some GPs. A few were reluctant to spend time learning the system if it was going to change or be replaced in the future. As discussed in the initial report, the strategic vision for the role of HP as the 'glue in the system' is not yet well embedded or understood, and this is also evidenced by the findings from the documentary analysis and interviews. Observations of project meetings and the Canterbury Oversight Group suggest that the focus on really embedding the system is still developing. A communication strategy which includes frontline users and the public to engage them with 'transformation' and a plan for sustainability may help embed HP further.

1.2.2 Leadership and Relationships

Those who attended the launch event generally had a more positive view of HP and its role in the system. Ongoing awareness raising and 'induction' are suggested as key mechanisms for increasing the number of users. Since the launch, there has been a steady increase in utilisation of pathways and from January 2017 utilisation has gone up 11%. When practitioners are 'actively' using pathways ie most days, they report HP adds value to their work.

The well-developed strong relationships across different organisations at senior level were viewed positively by the Canterbury team and were seen to be a key mechanism for enabling transformation and for ST being the first UK site. Senior system leaders and clinical leaders were perceived to be focussed on the successful implementation of HP with the clinical editor role now evolving and becoming more involved in the initiation of some of the service transformation work. It was observed that those who had attended the launch or were working with colleagues who had HP responsibilities, were more enthused by HP and the ethos of 'patients being cared for in the right place at the right time'. The launch event including the presence of the Canterbury team and partners in the transformation agenda was key to engagement for many participants.

Most GP participants felt HP could improve relationships between primary and secondary care. Many suggested that secondary care clinicians needed to attend the monthly education sessions which are in place and that this could provide the forum for discussions about HP and would improve relationships. It was suggested the education sessions (if multidisciplinary) would also encourage practitioners (nurse practitioners and community nurses) to work together more closely and to engage with HP as they recognise that more tasks and care will be carried out in primary and community care as a result of the transformation plans

1.2.3 Project management; Processes for development of pathways; training

The project team are active and visible in managing the implementation of HP. There was considerable preparatory work for go-live and we found that additional resource for the pre go-live phase may have been useful. This could then be offset with a tailoring of resources in later phases. Despite the challenges of the implementation of this significant initiative in a relatively short timescale, the evidence gathered suggests that the project management approach taken is working.

Concerns were reported over the process of developing pathways in relation to the need for GPs and consultants who were acting as subject matter experts (SMEs) to have time to develop pathways. This resource does not appear to have been anticipated or provision made for. There were 57 pathways in development at the time of writing in varying stages of completion. Resources (time for subject matter experts and clinical editors) were cited as issues in delayed completion of pathways for inclusion in the HP system

1.2.4 Design of pathways

We found the quality of pathways influences utilisation, and the experiences of using local, complete and accurate pathways, motivate and support practitioners in decision making and referrals. The complexity of some pathways remains a barrier for GPs to use the system, particularly when presented with complex patients in practice. An increasing diversity of users is becoming apparent as pathways develop and more providers are named as part of the pathway, raising the challenges of communication and referral.

Participants had mixed views about HP in terms of their experience of use and whether pathways were localised, accurate and complete. If on first use, GPs saw pathways to be inaccurate, incomplete or the system difficult to use, this seemed to affect whether they would use it again. GPs who used HP but had positive experiences were also more likely to be aware of pressures on resources to develop the system and to keep it up to date; for some this lack of resources and time for subject matter experts, appeared to contribute to a lack of confidence in the viability of HP longer term. Providers reported challenges with development process of new pathways and there was a perception of open-ended timescales.

Challenges also raised were the perceived 'accuracy' of pathways ie pathways not being NICE compliant, and the service for referral to, not being available. The complexity of pathways and the complexity of patient conditions meant that the use of the pathways was not seen to be easy by some, especially when trying to use the pathway with the patient in the room.

1.2.5 Value to clinicians and patients

New GPs interviewed reported they used HP daily as a clinical resource. Other GPs and district nurses also printed off guidelines for patients. Some GPs reported that more incentives to use HP may increase utilisation, eg if use of the system by professionals could in some way contribute to continued professional development (CPD). Other online clinical pathway systems on the market have developed functionality to do this.

Those who were using the system consistently felt it was too early to assess the impact of HP on decision making and referrals (which is also outwith the remit of this report). However, it was evident that many were starting to see the *potential* impact.

The feedback mechanism on HP (DOT) for users to influence change to the content of pathways and

to make other queries also required quick contributions and a significant time investment on the part of practitioners to ensure a timely response. Practitioners and providers commented that the systems to monitor and drive the development of pathways in a timely manner needed to be strengthened to maintain the credibility of HP and positively contribute to sustained use in the longer term.

1.2.6 Capacity, resources and clinical input

There is an underpinning theme of a lack of capacity and resources to deliver the requirements of HP at the pace and quality identified. Both SLs and GPs as well as OSS described how, '*more money should be allocated to the first couple of years to the project and then reduced* '

Investment in regular and consistent HP awareness raising/training/education sessions was perceived to be a mechanism to maintain the current momentum and encourage more users as the system develops.

The perceived lack of information about the overall development of HP and impact of the implementation of the system was also an important issue for many users, but again a structured reporting process would require resources and time to develop. More visible performance management reports would provide a focus for driving improvements in the uptake of HP.

There needs to be a clearer message about the purpose and 'meaning' of HP to South Tyneside, as part of any future communications strategy. Some practitioners have heard and clearly engage with the message that one of the purposes of HP is to ensure 'right care, right time, right place' . This message might be usefully reinforced as part of a communications strategy.

The resource issues such as clinical editors and project team capacity for future sustainability and use of the system, are acknowledged by many participants and need to be considered as part of future plans.

The learning from this evaluation needs to be considered in relation to future developments e.g. social care pathways development and for future sites. A checklist has been compiled from the findings of this study to support the planning for other sites (appendix 3)

1.3 Recommendations

We make the following recommendations to strengthen the implementation of HP in South Tyneside and to support the implementation of HP in other sites:

- Improve feedback to users about HP usage and uptake, in particular in relation to the specific pathways being used. Performance information linked to transformation plans and HP, showing outcomes for patients, referral patterns etc would highlight the potential benefits of using HP, and why particular services are prioritised in terms of transformation and the development of new pathways. This type of information would also be useful for any future evaluation of the impact of HP, although it is acknowledged that it is difficult to attribute any improvements solely to HP. Performance information, however, also help with any future analysis on return on investment.
- Review the roles, resources and accountabilities within the project management team (co-ordinator, project manager and clinical editors). Consider the resources required for the

subject matter experts to facilitate timely completion of pathway content

- Review current pathways in development and prioritise to ensure timely completion. To support this define the responsibilities and timescales for completion of pathways with an escalation process
- Where there are local and national guideline variations in pathways, build in a mechanism for system leaders to highlight this in the HP, with an explanation for the preferred option.
- Deliver further awareness raising and engagement sessions for future system users as pathways develop, to facilitate more 'task transfers' into primary and community care. Consider the use of the Education Forums as a mechanism to enable this.
- Develop a communication strategy for HP linked to transformation plans to engage the workforce with the transformation programme. Consider the feasibility of this communications strategy as a mechanism for engaging the public with the transformation agenda
- Develop a sustainability plan for HP delivery.
- Support the development of the emerging social care and voluntary care pathways drawing on the learning from this initial evaluation process
- Work with Streamliners/EMIS (the clinical records system) to consider facilitation of a technical interface between HP and EMIS

1.4 Conclusion

The evaluation of the first phase of the evaluation of the implementation of HealthPathways in South Tyneside has drawn out a number of themes which describe the context, mechanism, and outcomes which are emerging from the implementation and can inform the learning for future developments. The evaluation has, out of necessity (due to lack of attributable outcome data), been largely process driven. There are indications of largely positive engagement with the system from the participants sampled. The learning from this study has been built into the 'Readiness Checklist' in Appendix 3

2. Background

2.1 Local context

South Tyneside in the north east of England has a five-year system wide strategic plan (ST Partnership 2014) which outlines a shared vision for South Tyneside with patient-centred, high quality health and social care, 'in the right place, at the right time'. The South Tyneside Clinical Commissioning Group (STCCG), which includes 26 GP practices, has been operating since April 2013, with an overall budget of £230m. South Tyneside is also an Integration Pioneer which means it receives national support to develop an integrated approach to care. The aim is to improve care and reduce over reliance on statutory services. As a result of this strategic plan, South Tyneside was selected by Canterbury District Health Board in New Zealand (CDHB) to be the first UK site to deploy HealthPathways (HP) an online repository of clinical pathways to support decision making and referrals. The implementation is supported both financially for the HP product and in terms of project management by North East Commissioning Support. Streamliners is a company which provides the technical expertise and support for the HP system. The initial discussions in relation to HP began in 2015. The system was launched to all South Tyneside Clinical Commissioning Group (STCCG) member practices in August 2016.

Structured support is provided to South Tyneside from CDHB, with further support from a HP project management team, including a part time project manager, a project coordinator and 2 part-time clinical editors. Resources to develop, implement and maintain pathways have been allocated. HP had been operational for 4 months when the evaluation process was started (initial documentary analysis). Interviews and focus groups were carried out from the 6 month point and HP had been in place for 9 months at the time of this report.

Fifty pathways were developed for the launch, some of which were localised for South Tyneside from existing New Zealand pathways; others were pathways of care which were the same as New Zealand, except for the specific referral routes. HP was made available to each practice free to download from the internet via an icon on individual PC desktops.

To manage the implementation process, a project management process was set up, governed largely through two separate groups. The first was a Canterbury Oversight group that meets monthly where SLs and the project team discuss mainly strategic developments. This is chaired by the chief officer of STCCG. The other, is a weekly meeting where the HP project team and clinical editors meet to discuss the progress on HP and specific pathways. There is some inevitable crossover on the agendas of both meetings.

Evaluation of the HP implementation was undertaken by a research team at the University of Sunderland and guided by a realistic evaluation approach. Realistic evaluation emphasises the mechanisms through which the implementation of systems achieves outcomes in specific contexts. It seeks to find out 'what works well for whom and in what circumstances' using 'context, mechanism and outcome configurations' (Pawson and Tilley 1997) ie

- What is the **context** of the implementation in South Tyneside? (an initial description of this is found in the initial report (embedded in appendix 1)
- What are the critical **mechanisms** for the implementation of HP in South Tyneside (what seems to work and what needs to improve)
- What are the initial **outcomes** which are emerging?

2.2 Development and features of clinical decision-making systems

Online care pathways such as HP are a resource that practitioners can use to look up clinical information to support decision-making, treatment, care planning and referral. Such tools are intended to ensure that patients receive the right care at the right time and save practitioners time searching for clinical resources and information. In addition, practitioners (both primary and secondary care) have reported cognitive overload as one of the reasons for medical errors, and clinical practice guidelines used at the point of care have been reported to mitigate risk and be effective in improving patient care outcomes (Grimshaw and Russell, 1993).

Clinical information systems can also play an important role in demonstrating clinical impact. An early study in Germany by Blaser et al., (2007) found that practitioner performance can be improved by monitoring the use of online pathways for decision support. These researchers also explained how information technology (IT) should be integral to the clinical workflow and that there is a need for compatibility of IT systems to ensure usability. Training and system design were highlighted as key success factors. (Kay, 2005).

In addition, more recently, there has been an increasing interest in developing clinical pathways to reduce variability and improve patient outcome and efficiencies in the health system (Kreys and Koeller, 2013). A meta-analysis on assessing the effect of clinical pathways in hospital care found that '*patients treated according to clinical pathways had more favourable outcomes than patients not treated in this manner',* (Rotter et al., 2010, p.1082). Point of care online clinical decision making tools that are '*locally customised and combined with service redesign improve the appropriateness of referrals, decrease patient waiting times and reduce costs* (Brennan et al., 2011).

Studies on clinical pathways also report improved communication, teamwork and care planning in multidisciplinary teams which in turn also helped in coordination of care across organisations (Dobesh et al., 2006)

In summary, clinical pathways can be a means of continuous quality improvement through which patient care is delivered consistently, limited resources are effectively managed and there is greater transparency in the standards of care.

STCCG is the first clinical commissioning group in England to implement HP which will support users to manage clinical care in an integrated way. It is hoped that this system will not only address the government policy focus of a shift of care to primary and community care but has the potential for real choice for patients at the many stages of the patient pathway' (Smith et al., 2012). The King's Fund has recognised HP as an online tool to assess, manage and support decision making for referrals with the potential to transform service delivery. For example, they found more conditions were being investigated and treated in general practice (Timmins and Ham, 2013) and it was a valuable change management tool for supporting the redesign of services and improving communication between primary and secondary care practitioners.

A recent evaluation in 2017 (Gray et al., 2017) described the use of HP as an online tool in Australia and in New Zealand, where it was originally developed. The authors found that before HP, adult Australians receiving appropriate care was in the region of 57%, this low percentage indicated a need for a local decision-making support tool. Many issues were raised in relation to accessing paper clinical guidelines across regions, e.g. volume, duplication, differing recommendations and inconsistent structures. HP was subsequently implemented in 22 sites across Australia and nine

regions in New Zealand, using over 230 pathways. Following the implementation of HP in Canterbury (New Zealand) the study identified improvements with all of the above issues. A caveat was however made in relation to the attribution of impact of HP alone. It is difficult to measure the impact and outcomes independently of other initiatives if HP is truly embedded as the 'glue in the system' i.e. as part of a complex system.

This evaluation is focussed on the process of the first phase of the implementation of HP in the first site in the UK.

3.The Evaluation

3.1 Aim

The implementation of HP in South Tyneside is the first in England and the realistic evaluation approach taken (Pawson and Tilley 1997) aimed to learn from the implementation process and to understand What works, for whom and in which circumstances? The aim was also to develop a state of readiness 'checklist' for future sites based on the learning from the evaluation.

3.2 Objectives

The objectives of the evaluation of the implementation of HP in South Tyneside were to identify:

- What is the **context** of the implementation in South Tyneside? (an initial description of this is found in the initial report (embedded in appendix 1)
- What are the critical **mechanisms** for the implementation of HP in South Tyneside (what seems to work and what needs to improve)
- What are the initial **outcomes** which are emerging?

And on the basis of the key findings, make recommendations for potential other sites

3.3 Methodology

The evaluation was framed by a realist evaluation approach. This approach is pragmatic and addresses the complex situations in which 'real life' interventions are taking place, where there may be external variables that are not possible to control. The realistic evaluation approach can be used to draw out the mechanisms through which programmes achieve outcomes in specific contexts. Evidence of difficulties in evaluating the effectiveness of implementations in complex environments are well reported (MRC 2006). Pawson &Tilley (1997) cite a number of rich evaluations of social policy initiatives which are particularly complex to evaluate. These illustrate the usefulness of this approach when there is a range of complex variables.

In the evaluation of HP, 'context, mechanism and outcome configurations', were defined based on the literature, and interpreted and applied as follows:

- Context –background
- Mechanisms – the actions, or interventions
- Outcomes - impact for practitioners, system leaders and patients in South Tyneside

3.4 Sampling and Recruitment

Six GP practices located in South Tyneside were purposively sampled (Bryman, 2008) to take part in the process evaluation of HP. To understand the context of the implementation, participants were selected to gain a range of views based on a number of variables such as geographic location, size of practice, experience of GPs, and whether participants were users of the system or not.

The initial contact was made by STCCG via email and this was followed up by the research team. Written information about the evaluation was sent to participants via email. Approval to proceed was sought from the University of Sunderland Ethics Committee which advised that Health Research Authority Approval (HRA) should be requested, as mixed methods including interviewing of NHS staff, were being employed as part of the evaluation. Formal ethics approval was not required. In total, 10 practices were contacted initially, but four practices felt they were unable to take part due to a variety of reasons eg One practice was preparing for its Care Quality Commission inspection and their availability fell outside the timeframe of this study. Others were in the process of merger**.** A range of participants were recruited from GP practices including GPs, district nurses, practice nurses, practice managers, and healthcare assistants.

A total of 13 'system leaders' were also interviewed. They had roles in the strategic or operational development of HP or individual pathways as subject matter experts (SMEs). They were from both clinical and non-clinical backgrounds. Three of these SLs held dual roles (ie were clinical and had ongoing clinical responsibilities) .The total number of participants was 77 (including participants observed in meetings).

3.5 Data Collection

Quantitative data were obtained from the project co-ordinator for the nine month period (19th August 2016-May 2017) as part of Google Analytics reports generated from the HP system. The data included:

- Number of HP sessions
- Number of Page views
- Number of users
- Use of specific pathways

Qualitative data were obtained by the research team as follows:

- Observations of meetings (*n=2,* total 8 participants)
- Interviews and focus groups with SLs and practitioners (*n=69*)

Qualitative data obtained from interviews and focus groups was digitally recorded and transcribed.

The interviews took place either in each of the general practice bases, or where most suitable for participants such as STCCG offices in South Tyneside or the University of Sunderland. Semi structured topic guides were developed for one to one interviews and focus group interviews (Appendix 2). The topic guides included the broad issues identified in current evidence on clinical pathway systems and HP literature:

- Understanding of HP as part of the strategic direction/vision
- Involvement in HP developments
- Experiences as user of HP
- Perceptions on benefits for clinicians and patients
- Suggestions for improvement for possible future sites

The evaluation team observed two meetings, the local weekly meetings and monthly Canterbury Oversight meetings. The purpose of the observations of the weekly project meeting and monthly Canterbury Oversight Group was to understand the development and monitoring processes for the project and pathways. At the local weekly meeting, an opportunistic observation of the DOT system

was made. The focus of the observations was to observe the interactions and the communication about HP.

3.6 Data analysis

The qualitative analysis was carried out by the research team, who read the interview transcripts and used a qualitative research software package, Nvivo, to analyse and establish themes. From the literature review in the initial report, the documentary analysis and the themes emerging from the interviews, the context, mechanism and outcome 'configurations' were developed (Pawson and Tilley 1997; Moore et al., 2015). The themes were validated independently by another researcher at the University of Sunderland who read, coded and developed themes from the transcripts manually.

The six configurations are presented below. The themes emerging from the qualitative data were analysed alongside the quantitative data and 'configured' to reflect the 'context', 'mechanisms' and 'outcomes' at play within the implementation.

4. Results

The findings from the analysis of the data are presented in summary below (table 1), using the 'configurations' (Pawson and Tilley 1997) to explain the context, mechanisms and outcomes at play. Configurations (labelled 1, 2, 3 etc on Table 1) attempt to draw together themes identified in the data to explain what works and in what circumstances. For example, if 'existing relationships' is a contextual theme which may impact (negatively or positively) on or be dependent on mechanisms such as the 'launch event', these configurations would be analysed for evidence of linkages, attribution and outcomes, drawing on a wide range of data.

Table 1 below shows the themes in each of these configurations.

Table 1: Summary configurations

Configuration	Context	Mechanism	Outcome
1	Strategy	Governance (transformation plans and HP) Leadership	Sustainability Leadership
2	Pre – existing strong networks and relationships	CDHB input Launch of HP Education sessions	Staff empowered and motivated Clinical engagement in use Different perspective of users v leaders Tensions/interfaces – primary secondary care,
3	Systems for development of HP and individual pathways	Management of HP Development of pathways Training	Accurate and complete pathways Clinical engagement in individual pathway work
4	Availability and access to HP	System access Design of pathways	Pathways uptake (data evidence) Complexity of pathway Reported usefulness
5	Decision making and referrals	Use of HP as a referral system Use of HP as a resource/directory Two-way communication Task transfer	Use of HP/compliance Specific pathway outcomes e.g. diabetes/cardiology
6	Resources to deliver HP	Services configured in line with HP Clinical editor and project support Incentives for practices	Timely delivery Return on investment

Explanations of each theme are given in the narrative below and evidenced by verbatim quotations from the qualitative data. The following abbreviations indicate the source of the data as follows: System leaders– SLs; General Practitioners – GP; Other support staff –OSS.

4.1.1

Context: Strategy

Many of the SLs were conscious HP was part of a system wide transformation programme. Some had heard of it prior to the launch in South Tyneside. Descriptions by other non-SL participants of the enthusiasm and passion for HP they had seen among both the New Zealand leads and those in South Tyneside suggest they felt HP leads were almost evangelical in their beliefs about the potential impact of HP and some felt this could be counter-productive. This level of passion and drive to succeed was seen as necessary by members of the implementation team, as well as some of the clinicians in order to "sell" the idea to all involved and to engage clinicians, Some GPs however felt it important to give a realistic view of HP so that it was not "oversold":

I think the critical thing is… Often with these things, is a champion (SL: I5,)

I think a lot of that is [Name of main SL] really… Really believing in it and really, sort of, taking it and… Not in the slightest pushing it through, because I think that would be the exact (opposite)… That just wouldn't be a Canterbury way, really. But somebody just keeping it on the agenda and keeping it bubbling. And really believes in it, so he's getting people bought into that. Because I think it's been important. (SL, I2,)

I think it was a bit over-sold [at the launch]. Because it doesn't give us all the answers that we want. (GP, I5,)

One SL explained how he was guided by his values and could visualise how HPs would benefit 'the system' but he recognised the need to have an eye on the bigger picture in a complex situation. This SL reported the conversations with the Canterbury team on the success of HPs in New Zealand and Australia to be very encouraging. In addition, he explained that his goal was to improve patient care by ensuring patients *'had the right care at the right place*':

Participants did not always appear to be aware of the 'whole system transformation' concept of HP, or were aware but felt that was not the main driver for them:

'…It's an accessible way of me getting the answers that I want that are going to help me with a particular patient I have sat in front of me. And that's not always about reducing demand on secondary care…(GP:12)

One SL felt that some secondary care clinicians were initially apprehensive about the purpose and the use of HP because this would impact the number of patients in their clinic and therefore the income for the hospital. However, it had been explained that this was not the case and that they had been clear in their contracting processes that hospitals were on a 'block contract' and there was no reduction in payment currently for seeing less patients. This was to ensure the perceived financial risks of transformation and the shift of care out of hospitals would not impact on the uptake of HP. One SL explained how he had a conversation with a clinician who was worried about the potential shift of care and therefore resources, to primary care:

'…I want to discharge 50% of my patients from clinic – how are you going to manage that?" That's what's going to get the savings. Because then you can prescribe what you want and I think part of it is thinking differently, you know, from that aspect. I think that's going to be the challenge both secondary care, primary care and from the leadership in primary care to actually push that through, or actually support colleagues in primary care – because there will be colleagues that will say "Listen. I'm almost single-handed. I've got very little practise nurse support. I can't take this on." And that's happened over the years. You know, one of the GPs breaks their arm and they can't run their diabetes clinic, so for a few months the nurse – diabetes nurse – goes in and supports etc. And that's the sort of relationships we've had over the years. … Needs must, …' (SL: I8)

Other practitioners such as nurses interviewed were of the opinion that HP was predominantly for GP use, although one nurse practitioner who was involved in the development of the diabetes eye

screening pathway saw the benefits for wider practitioners, clinical and non-clinical especially where up to date leaflets and information were attached to specific pathways for different categories of patients e.g. people with learning disabilities, pregnancy etc.

> *From my understanding, it's really been commissioned for the GPs to access information … it's helpful for us to know in screening…If you've got a patient that has learning difficulties. If they are… Oh, I'm trying to think – Down's syndrome, if they're pregnant… I mean, we do get the antenatal referrals from the hospital,……So we were able to attach eye-screening leaflets. (OSS:18)*

We found that the vision of transformation of care pathways and the role of HP is not yet fully understood by users who were interviewed as part of the evaluation, who were not actively involved in developing the system or pathways.

Mechanisms: Governance; transformation plans and HealthPathways; leadership

The Canterbury team were reported to be inspirational by many of the participants who attended the launch, because they could report the impact /demonstrate the success of HP. How they overcome the challenges they had in New Zealand also influenced SLs, especially the story on reduced numbers of hospital admissions. The narratives of clinicians and SLs who met the New Zealand team and attended the launch showed they understood the value of HP and it appeared that they used the system more frequently than those who had not attended.

Those participants who did not attend the launch and who had not met those who had successfully implemented HP were mainly later trained by the project team and as a result a few GPs appeared less engaged with the ethos underpinning HP. For example, some clinicians saw it more as a one dimensional "directory of services" or "clinical resource" rather than a new approach to delivering care in the 'right place at the right time'. Exposure to 'leaders' in the implementation process eg SLs, clinical editors, subject matter experts (primary and secondary care) as derived from the data in this study, appears to have a positive effect on potential users.

One SL enthusiastically described in detail how the CCG first became aware of the wider work that Canterbury were doing around system integration, *'and how the pioneer programme involved essentially a different approach…' (SL: I12).* And another felt it was implemented with the right intent and values:

> *'…this could be something which is a really great driver, something that can really get people to focus on doing the right thing. Getting health, both primary and secondary care, and care people in the room, talking about what should happen when a person comes to any of our services and making sure we just document that and it happens every time… I mean, if you just look at how well HP is being received by the GP community, which is its primary audience. … (SL: I4)*

When SLs were asked to reflect back and suggest any improvements to how HP was implemented, the main suggestion was around widening the range of guests at the launch and include neighbouring foundation trusts.

In terms of the rollout of HP, many GPs were conscious of the wider organisational implications and were aware of both the positive aspects of the system and its limitations. They were mindful of the

lack of time clinical editors had to complete and sustain the updating of clinical pathways. They were empathetic towards them and felt the task was a lot bigger and more support was needed. They compared HP to other larger systems such as NICE guidelines and perceived there was more rigour in NICE guidelines when they were unsure whether a local pathway was complete and felt unable to trust it. Some felt there was not sufficient link to the strategic vision:

'…they're not tying it to that big cultural way of working. It's literally – there's a tool (SL; I2)

One SL was confident about HP. He was instrumental in the process and was the catalyst in many ways and explained HP as a tangible, deliverable product that would benefit the health and care system in a wider way:

> *'…You've got to prove that technically you can make it work in the UK and the GPs in the UK will buy into it…Why aren't we doing this in the whole of Cumbria and the North-East? Why isn't the whole of the UK using Health Pathways? (SL: I4)*

The clinical editors described some detailed situations in which they felt their roles involved much more than was outlined in their job profiles. The aspect of leadership in service development, was not explicit in their job specification (see appendix 2) but they perceived this was a key competency required for their role:

> *'…the idea of identifying areas for change. And bringing that in as well. Because, again, we've been asked... Not enhancing our role, but we've been asked to look at when we're writing a pathway, which is that you're literally writing down business as usual, are there areas where we can see that we could try and make a change? And then how do we put that forward? And I think sometimes that's felt a little bit daunting because we've always felt we've had to lead that work.' (Clinical Editors)*

<u>Outcome: Sustainability</u>

South Tyneside is the first site in the UK to implement HP. The perceptions of users, and non-users in the area, have the potential to influence views on the feasibility and benefits for future sites as well as the sustainability of the HP system for South Tyneside. Alongside the challenges of measuring the HP impacts in the short term following implementation, HP is part of a complex system and it will be difficult to attribute improvements efficiency and performance due to HP alone. However, there are several key themes which have emerged from the qualitative data that provide useful insights into what worked and for whom and how these findings may affect the long term sustainability of the HP system.

We found that there was a focus on sustainability and the scale of the task was not underestimated in particular by the clinical editors, who felt that HP is:

> *'…only a small part of it. And I know there's... I don't know exactly, but I know there's a lot else going on at higher levels, than me as a clinical editor, of Health Pathways, knows about systems*…(Clinical Editors)

This awareness of the wider task of transformation in the system was apparent and is discussed throughout this report

Since the launch a SL reported that he felt GPs were now familiar with HP, but incentives to use and sustain the use of HP could be improved eg in particular for continuous professional development:

'The reason that I know other doctors like GP Notebook (another online system) is because it logs that you've been in. So, at any stage you can say "Give me a history of the things that I've looked up." And it will give you… You know, over the last six months you have been on some gynaecology pages, you've been on some respiratory pages, you've looked up abnormal liver blood tests… And it will give you all the things that you've looked up. So that is useful for recording of your continual professional development (GP: 12).

In addition, approaches to sustainability included discussions by SLs with hospitals and community services about inclusion of HP in the mandatory training programme and also involvement of the communications team:

'…Okay, so there's no formal long-term plan, but it's just now you've recognised there's like a … You know, to work with the secondary care and look at avenues in terms of awareness of Health Pathways within that (SL: I2b)

Clinical editors reported challenges of time constraints for obtaining information for pathways from clinicians as they are so busy. Asking them to produce this information for free and in their own time was part of the ethos of HP (i.e. voluntary not forced input) but there were tensions highlighted between this and getting pathways produced and signed off for Streamliners to make the pathway live. The HP project team were aware of these issues and made contact with relevant SLs to escalate response and feedback. There was no evidence to suggest any formal escalation procedures for pathway development. The reliance on 'good will' to develop pathways could impact on the future sustainability of current arrangements.

GPs who had engaged with HP raised some concerns about the quality of pathways which may impact sustainability of the programme. Where GPs accessed HP and found unpopulated (or perceived as 'incomplete') pathways or there was not a pathway for the condition they were interested in, the credibility of the system was affected and GPs were less likely to use it again. Using HP and the initial experiences on pathways utilised affected GP views, where the pathways were complete and accurate the system was perceived to be credible and of value, and where pathways were unpopulated and complex in design GPs were less likely to use it as 'first point of call':

If they roll it out more, '…and plump it up more, yeah, fine. But, as yet, there's not enough in it…(GP: I7)

…For the clinician. If you were to give me a new protocol here to look at now, it won't just give me six bullet points, it will give me sixteen bullet points with three sub points, each of which opens up a separate window. And until you've been through them all, you don't know what's there to be able to use…(GP: I7)

One GP explained leadership was key to the long-term sustainability of HP and solely reviewing data on use, was not sufficient to address uptake and engagement. SL mirrored similar concerns as this GP but also felt more marketing was key to the engagement of the wider health community:

…If the aim is to try and transform the NHS, it needs a lot more leadership thought. It needs a lot more strategic thought. It needs a lot more workforce… workforce planning.. (GPI17)

The audience is not really yet the users of Health Pathway; that audience is other kind of

commissioners or secondary care people. The audience should be our practise nurses and our GPs. And I don't know how much marketing we do with them so maybe that area of leadership needs strengthening…(SL: 12).

4.2 Configuration 2

Context : Pre-existing strong networks and relationships

There was clear evidence to show that the implementation of HP was welcomed by key stakeholders to improve integration and connectedness and reduce inconsistency, long waiting lists, poor communication and information on service provision in ST.

Pre-existing strong networks and relationships were seen to be key to the effective implementation of HP. The fact that ST was a national integration pioneer site, and was already linked to a number of best practice sites was a benefit. The Canterbury District Health Board (CDHB) was one of these best practice sites. The Canterbury initiative was first demonstrated to South Tyneside at one of these meetings and described as, *'…being an important glue in the system',* between primary and secondary care. Similarly, the Canterbury team were *'struck'* by the level of formal and informal dialogue between stakeholders. A relationship between CDHB and STCCG developed over a period of 18 months leading to the launch of HP. They were impressed with the work ethos and values of the SLs in South Tyneside:

…we were immediately struck by how relevant we thought it was to South Tyneside…there was an obvious synergy in what they were doing and had done over the previous ten years and what we were trying to do in the borough…(SL: I4)

⋯And I think, partly, the reason that Canterbury felt a sense of alignment with us was because, actually, we did have people in the room, we did have everyone around that table… We had relationships with Acute Trust commissioner, mental health, third sector⋯ They were already there, so we kind of knew each other (SL: I4).

The close working relationship between the project team, the Canterbury team and Streamliners was observed by the research team during meetings and was evident in their interviews. The Canterbury team reported giving more support to South Tyneside than when implementing HP in other locations because they were conscious care systems may be different in the UK. They reported that working within the context of the NHS could be particularly challenging because of the perceived mindset and ways of working e.g. evidence based, traditional and by sector rather than in trusted partnerships and with shared risk taking. They also saw challenges in adapting the working culture to one that was more informal, open and trusting.

A SL who implemented HP in Canterbury (SL I3) gave insight into factors that they felt would be beneficial to ST adopting the approach. He also noted strengths such as existing strong relationships among stakeholders and committed teams. He also felt Canterbury could be a learning process for them "around adapting to the NHS and learning the mechanisms of the NHS" (SL; I3):

…in South Tyneside, they'd already worked very hard to develop a lot of the relationships between the key players. Which was the prime reason that we came here. And they had some leaders in place who were motivated to change. So, we could see that some of the things that we were doing may help them in terms of their thinking in adapting some of the stuff that were doing. (SL, I3, p2)

Despite reported 'system fatigue' and the, '*busy-ness*', of practitioners**,** participants from both clinical and non-clinical settings attended the launch (n=180) and appeared motivated to use the new online system.

Mechanisms: Launch of HP; education sessions; Canterbury District Health Board (CDHB) input

The launch of HP was an active demonstration of the relationships across ST and with CDHB. Participants who attended felt it was a very positive event on a number of levels as described below. Resources to plan and run the launch were tight however. The run up to the launch was described as *'very busy',* and*, 'working day and night'* by SLs to ensure 50 pathways went live. The project co-ordinator took up her post after the launch which eased some work load pressure but comments made by the small project team of three people working on pre-launch systems and pathways suggest more help earlier would have been welcomed. This is an important point raised useful for future sites to be aware of:

> *…The set-up of it (the launch) was by far the busiest bit… coordinating…and making sure the invites were going out, making sure we had the speakers, making sure we had presentations. Making sure we had the pathway working, making sure we had the website live. That in itself… But then, obviously, we needed all the work to develop the 50 pathways, which was huge. …(SL: I2)*

The launch included presentations by organisations which are partners in the whole system transformation programme and may feature as providers of care in the HP system, including health, social care and voluntary care providers. With hindsight, SLs felt it would have been better and more practical to have invited other foundation trusts from wider areas to the initial launch too, especially to benefit from the messages from the Canterbury team. SLs reported they were now trying to develop relationships with other neighbouring foundation trusts where referrals may be made for South Tyneside patients and it was proving to be more challenging.

There was clear evidence that participants who had attended the launch were impressed, especially with results on caring for patients out of hospital:

> *Globally, it was sold to us at the time as a way of trying to keep patients out of hospital. Trying to ensure that their care occurred into the community as much as possible. Some people might overreact and send somebody up to hospital. Whereas you could click on the pathway, and it would show how to manage ___ and how you might best handle it. So that was very much my take-home messages from the meeting itself' (GP; I17).*

Following a demonstration of HP at the launch event which showed how compliance to a pathway helped to manage patient care, and that up to date information and guidance was available on the system rather than searching in different manuals.

Other messages that participants took away from the launch included, '*using resources appropriately, reducing hospital admissions', 'right care, right place'.* More significantly, it was reported that the charisma and commitment of the Canterbury team that came across on the day encouraged positive views on HP:

> *'…The visitation from New Zealand – from the team from Canterbury into South Tyneside –*

was really positive and really very interesting as well…The major thing that, I think, we took from Canterbury, from our organisation's perspective – so that's South Tyneside Foundation Trust – was really about the partnership element. So, this was not about organisational barriers or boundaries, it was really about trying to open up much more and be part of the system and work a system together…So, it's been very helpful from that perspective (SL: I4)

One participant explained how he used the launch event to network and raised he was already documenting pathways for social care and HP would make the process of social care more transparent:

'…And the question that arose is, well, where do we write those down? How do we record those changes so that staff have access to the guidance and the processes that they have to follow – standard operating procedures. And it just turned out, really, by sheer coincidence, I suppose, that one of the things I went to when I first arrived here was the launch of Health Pathways. And I discovered that South Tyneside was in a partnership with Canterbury, New Zealand (SL:I5)

However, he felt the word '*health*' in HP would imply it is not related to social care and could be a barrier. Social care pathways for ST are currently in the development phase and will be the first social care Healthpathways in the world.

Support from the Canterbury team was reported by SLs to be useful at all times before and after the launch . One SL explained that knowing members of the Canterbury team and Streamliners were involved from the beginning was reassuring and gave added confidence in the system as well as pointers on what to do next:

So, I think, on reflection, and they said it at the time, but I do think they did… They've given us their… What they describe as their A-team. The technical writer who has been with the Streamliners for the longest time. She'd been there right from the beginning, and she was integral in developing health pathways. And she did a just much broader job than just technical writing, because she had been in health pathways streamliners for so long, she was able to say, "Right, we also need to start thinking about your website. We also need to start thinking about x, y and z." So she was our real conduit. Slowly, we were able to bring in in different people at the appropriate time (SL: I2)

Outcomes: Clinical engagement; motivation; tensions

The launch of HP in August 2016 was effective in many ways. The Canterbury team enthused participants by their passion and inspired them. The pathway examples and presenting facts such as the use of the online tool prevented building another hospital were very encouraging. Many GPs reported they went back to their practices and decided to use HP. The following GP came back from this '*learning event*' and presented these facts to his practice at their monthly educational meeting and agreed to change their working practice and access the online tool for clinical guidance and pathways:

…There was a learning with lunch. An education thing, arranged by the CCG. And we all thought that was a particular good idea. And we brought it back to one of these meetings and decided we would run with it...(GP:I7)

The opportunity to meet face to face with the Canterbury team and the SLs were key drivers. The

execution process provided the opportunity for practitioners to question the value of HP. The visual demonstrations of pathways, such as the demonstrating the cardiology pathway were effective in capturing the interest of the audience. This process encouraged participants to access the online tool, although the impact of peers was significant enough to report and a factor that influenced some participants:

> *…We've had quite a lot of information leading up to Health Pathways, when we've been to talk to some of the CCG. So we're kind of aware of how it's evolved from New Zealand. The New Zealand, sort of, framework that they used. So… And we've got… One of the GPs in the practice works… Works at the CCG as well. So, we've had quite a lot of information…(GP: I14a)*

There was a recognition that all programmes need time to work. It was observed during interviews that in practices where there were members of the project team who worked there, ie they had relationships with SLs, GPs seemed to engage more, however, in others practices there was less engagement. A few GPs felt it was too early to give any feedback because they had only used the system a few times or not at all:

> *And I must confess my reflection at the time (of the launch) was that's all very well and good, but there's a timeline that that takes, and you're asking us to engage with this process now. (GP:I17)*
>
> *'Yeah, so it's very early days, to be honest. I do use it on a weekly basis, if not daily. And I find it quite useful (GP:I 10)*

Despite the points raised above by participants, there was a general recognition that any tool or intervention to improve communication and relationships between primary and secondary care would be endorsed by the clinical community*:*

> *A lot of our time is spent clarifying poor communication from secondary care…There's never a day goes by where we don't have a communication issue to sort* (GP:17)

It was felt that it would be the SLs, more specifically the clinical editors, who liaised with clinicians to develop pathways, where better relationships would develop. The clinical editors did confirm this suggestion.

Challenges developing pathways were also identified by some participants due to the relationships between the clinicians. This was not only between primary and secondary care but could be across one particular professional group for pathways which needed input from a number of clinicians with different clinical backgrounds:

> *'…The pathway sits, sort of, between myself as the … and with…, who's one of our elderly care consultants. So, it had to be done jointly, and again there were complications in terms of input from my side, from her side, and then pulling all that together and… Where the pathway sits neatly in speciality, perhaps, it's a bit more straightforward. But where it bridges… You give people different specialities, and obviously there'll be different perspectives on that…'*(SL:19)

4.3 Configuration 3

Context: Systems for development of HP and individual pathways

The clinical editors are responsible for developing, and maintaining local health pathways. Their workload involves regular contact with primary and secondary care practitioners, face to face, telephone or by email dependant on nature of query. The process to develop a pathway into the system requires the completion of several stages as follows:

- Clinical editors to agree and generate new pathway with project team/wider governance
- Subject Matter Group approached to develop pathway (usually appropriate clinician is allocated to work on pathway or in some cases nurse practitioners, recent cases have proved nurse practitioners to be fully engaged and very helpful)
- According to the complexity of the pathway, feedback is provided and implemented into the pathway (this could take many attempts and a lot of time). There are currently 57 pathways that fall under the development category
- Following 'sign off' by clinicians, Streamliners approve any new pathways according to the approval process and make live on the HP system (subject to any queries by Streamliners)

It is apparent that this process is not always followed and can be subject to delays at each stage.

Strong strategic leadership and a project management team in South Tyneside were key to driving the implementation and comprised: A project manager (0.4WTE), HP coordinator (1WTE), 2 clinical editors (0.6 WTE – less than the 0.8WTE recommendation by CDHB). In addition, input from primary and secondary care clinicians, support staff and partner organisations has been provided without funding. Formal and informal project meetings have been established. The monthly Canterbury Oversight meeting receives updates from the project manager on progress with HP developments as part of the system transformation agenda, and weekly working group meetings including clinical editors and the project management team have been set up. The team members are employed by NECS, FT, CCG or work in general practice. Help and support from the Canterbury team was useful although SLs reported that they were learning a lot as they went along and with hindsight there were a few things they would have done differently eg SLs only found out about how to use the DOT (HP Administration System) for managing feedback after the launch. This tool which is part of the HP system requires daily responses to queries or comments from practitioners so that they are assured that their issues are being investigated promptly. SLs felt it would have been *'better to know about DOT much earlier'* in terms of using it for feedback from GPs and the resources required to manage this process.

It was reported that pathways for development were selected based on criteria and suitability of existing Canterbury pathways; many were reported to be identified as 'quick wins'. Priority clinical areas were also identified by practitioners (three of these were also part of another local initiative, - cancer, deep vein thrombosis (DVT) and respiratory). In addition, other locality based prevalent conditions were prioritised.

SLs involved in the process of selection of pathways to develop are now more mindful of identifying pathways where one pathway may lead into another. The impact of emerging pathways on the GP community and wider partners is now being recognised by SLs and how significant they can be for referrals.

A lack of defined time frames may have implications on the credibility and perceived value of the HP system. More so, if GPs try to access a pathway and each time they visit HP it remains 'incomplete'

in their eyes because that pathway is not yet available. SLs explained how it was a challenge to complete pathways within a time period because there was a reliance on other professionals to provide information that is required, before a pathway can become live. Sometimes the time it takes to develop a pathway is dependent on practitioner responses and feedback. The following illustrates an approach taken to develop pathways:

> *'I think they have a kind of a work-plan and a rough time schedule and they… And some clinicians make themselves more available than others and the ones that don't are sort of badgered a little bit' (SL: I12).*

At an operational level, a SL reported informal processes for wider review too, escalation on pathway development was decided at the weekly HP meetings or monthly Canterbury Oversight meetings:

The 'escalation process' (our term) involves SLs contacting practitioners involved in pathway development to '*remind*' individuals of the importance of their support in, '*agreeing and developing'.* Streamliners are unable to commission a pathway until the subject matter experts 'sign off the pathway'. This means it needs to have been through the full process of a draft pathway reviewed by the subject matter expert. Increasingly, it was reported that in addition to clinicians, nurse practitioners are valuable in providing information on pathways.

SLs developing local pathways (mainly) experienced difficulties over the time it took for them become live. There was no specific guidance on the length of time practitioners should respond to colleagues, for example, clinical editors requesting information from clinicians; this '*slowed the process'*. HP users are expected to feedback any queries via the DOT system, although feedback was not always of value:

> *'But she said it could have just been, you know, down to the time of day they rang. But I did get feedback, but nothing to, sort of, help what I was asking (GP: I17))*

In summary, different approaches to the design process for pathways, with the content being 'discussed' via email rather than planned subject matter groups. There was a perception that this counter-intuitively impacted on the timescales for completion.

<u>Mechanisms: Management of HP; Development of pathways; Training</u>

A SL, who was also a GP and part of the project team provided a detailed account of how they selected pathways. This participant said he is learning a lot as they were carrying out the work. More importantly, clinical editors are now more selective about developing new pathways:

> *' ...They (New Zealand) gave us their list of their top-hitting websites. So, some of them weren't relevant to us, because I think gout, for example, was one of their big hitters. But then we went through and said, "Well, yeah, that tallied with what we think is important or we're going to side-bench that." And we probably learnt a lot from that. Was that we dipped into too many specialities all at once. In order to get a bit of a spread. Whereas actually we're learning now that if you go into one speciality and try and get all those speciality pathways done, it works much easier. So, we are learning as we go along. (SL: I9)*

The pathways being progressed at the time of this evaluation were related to previous pathways identified from the first phase. Participants explained that some pathways were quite complex when they began work on them and described in detail how they linked into other pathways, for example, mental health, *'because mental health dipped into a number of different pathways that we'd already written'.* There were other technical reasons for selecting specific pathways, the diabetes pathway was described as well-designed and referred to quite often:

> *'…We felt that those would be good ones to, again, pick up on. Because then our links wouldn't link to a New Zealand link. It would link directly. Because there's a lot of intra-pathway links when you're in there…(SL:I9)*
>
> *'…Well, within the diabetes pathway there's a link in there to diabetes retinal screening. So if they GP were to click the diabetes tab, under everything around, say, I don't know… Foot screening and, perhaps, antenatal care, there's a link in there for diabetic screening. So, if the GP then clicks that link, he will be able to see everything to do with retinal screening and where we deliver the service and how to contact us and how to refer in, etc. (Nurse Practitioner: I18)*

The type of pathway to take forward for development is not always universally supported. Working on social care pathways, a participant reported:

> *'Well, what we said was the pathway into residential care. Now, we knew it was wrong for the reason that we didn't want people to end up in residential care, but we thought "That's ok… If residential care is the ultimate end-point for some people, if you work back from it, what are all the things you would do before it got anywhere near there? If you were intervening early with someone." So, it would still allow you to look at all sorts of preventative measures, alternative accommodation rather than 24-hour residential – what they call age-related…' (SL: I5)*

In relation to the development of pathways for social care, a social worker present felt that it would be a useful tool to use and social worker attending at a multi-disciplinary meeting where a focus group took place said her main reason for attending was to '*take back names of people they need to work with'* in relation to developing accurate and complete pathways which practitioners would use in the future.

One SL was conscious about the important of the quality of the content in HPs. He stated that for some SLs it was a case of 'putting information on' whereas for others it was 'putting *useful* information on' and addressing the reasons of why it should be on and what value would it add to the pathway. For example, for gastroenterology, all the gastric pathways, and the request pages are complete, or as the clinical editor said, they are '*all-singing, all-dancing, and they're all up to date'.* Clinical Editors find they have to be careful in discussions with subject matter experts, to ensure they are developing pathways which are accurate and complete, before Streamliners can physically add them formally to the system. In the case of the diabetes pathway for example, the page could not be live until they had the pathway complete for ophthalmology.

> *There's a little bit of pushback from us sometimes about ownership of Health Pathways, and saying, "No, it's not just a dumping ground for information (SL: I9)*

The feedback system built into HP called DOT, which enables users to log queries or suggested

amendments is seen by positive by many users and a key part of users' willingness to engage with the system. A prompt and 'appropriate' response to DOT queries was perceived to be useful by most users. However, a small number of participants were unaware of the feedback button or its purpose:

> *…If GPs have ideas, you can put it on, and it'll be shared. I don't know how to do that, mind you. We don't know how to do that stage yet. But we've got a contact, who we could contact…(GP: I10)*

One GP participant explained how he used the DOT feedback button to clarify what the criteria was for pre-diabetes, however because he was not satisfied with the response, he has reverted to using national guidelines (NICE), where he felt more credible information was available.

In relation to use of the feedback system DOT, a nurse practitioner raised a point in connection to the work she did on developing a pathway and had included literature on the condition for new patients. She was not aware of the timescales and process for when the literature was going to be updated:

> *…I've put that information on quite recently, but if there was a change in the national literature. You know, you've got to keep it up to date because if GPs suddenly get the impression that it's out of date and it's not concurrent, then they'll stop using it…You create a policy and then you put a review date a year later….(Nurse Practitioner: I18)*

One function of the project team is to deliver training. There were some GP practices saying they not aware of this:

> *I'm not aware of there being any internal training. It was delivered on the day, (of the launch) and that was it. (*GP; I17)

Most of the practitioners who did not attend the launch were trained on HP at their practices. This was on an ad hoc basis. Although, the majority of participants who did not attend the launch felt the system was simple to use and required very little training. One trainee GP was introduced to the online tool as part her induction, her practice was not aware of some of the functions in HP, the feedback button was the most frequently reported function. Another trainee GP suggested that the training should be part of the hospital induction, an addition that a SL later said they were looking into developing. These measures are seen to make HP, *'first point of call'.* A GP explained it was early days and she was still learning the system and the outcomes were yet to be seen. GPs said HPs was easy to understand and minimum training was needed. In one focus group with more than ten GPs present, they said they had no training except from the knowledge gained from attending the launch. There was a general consensus that the tool was self-explanatory. Other GPs felt training was important, especially new GPs who were not present at the launch:

> *…There was a verbal talk at that meeting, where they showed us the pathways and how they would be updated. But then it was very much a go away, and play with it and use it…'It's user-friendly' (GP:I7)*

The project team are in regular contact with GP practices. In one scenario, GPs who had had training on HP had now retired and new GPs were approached for HP training (sometimes referred to as

'awareness'). The practice manager participant explained how she could call anytime if the practice had problems about the use of HP. In addition, they were aware of the support that was available on the HP site:

> *…There is a health pathways community site, which does have… So, some training on there…'(SL:1)*

.

Outcomes: Accurate and complete pathways

Many participants explained how they were using HP for up-to-date information on pathways in ST, before referring their patients *'right place at the right time'*. There were mixed views about using the non-local New Zealand pathways, some felt this was a trust issue, others reported the clinical content to be good, if not better than the UK, but the fact that pathways were not local was perceived as a potential barrier to using HP.

The fact that HP referenced local services was reassuring:

> *…Because it's got the contact number and how to refer and what form to use. I mean, of course there are lots which are not relevant to us, because it's the New Zealand stuff. Which, again, referred for the clinical information, but not for the referrals and stuff like that (GP: I10)*

However, there were some GPs who felt non-local' pathways were still useful:

> *So, there was a man with low testosterone levels… So, his blood result came back with low testosterone levels and I wasn't sure what to do and I looked it up and it wasn't a localised page, it was a New Zealand page… But it gave me the answer I wanted. It helped me decide what I had… That I had to actually repeat the test and do it at a different time of day, which I did… I wouldn't have known otherwise (GP/SL: I12).*

Some participants were uncertain of the reliability of using non –localised pathways but recognised the challenges in terms of time and resources:

*'…The bottom line is things that would facilitate the use of Health Pathways, would be having all the health pathways localised at the time of going live. I appreciate there's a financial constraint to doing that…(*GP:I7)

New GPs used HP as a clinical directory. One participant explained it helped her to look up information in one place and saved her time rather than searching for various information in books or links

This GP clearly accessed it regularly, her level of detail about the system demonstrated this:

> *...I do use it on a weekly basis, if not daily. And I find it quite useful. So it's got all the updated guidelines and... You know, just to refer to. So, I find it very useful (GP:I10)*

The use of pathways varied. It was clear some GPs had accessed HP in more depth than others. GP s use was mainly reflective of their first experiences with HP ie if on their initial use the content was complete and accurate it was reported that it was a positive experience and they were more likely to use it again. Participants who had positive experiences also described their awareness of the wider benefits of standardised care and other non-clinical service provision:

> *There's a whole wealth of knowledge there that I can't keep in my head, but it's at my fingertips in Health Pathways…it just helps me… Helps me give evidence-based care to my*

patients, even if it's got nothing to do with secondary It…Also helps standardise care across the patch and it makes me aware of things like services that may be statutory or third sector voluntary services that I wasn't aware of, that can help me and my patients as a…(GP: I12)

…I mean, I've come across a topic which I wasn't sure what to do. So I've just gone on it. Because everything is very concise there… (GP: I10)

There were mixed views about the content of some pathways and the ability to influence changes to the pathways via the DOT system. Again, perceptions of HP were dependant on participants' first experiences of using the DOT feedback mechanism to report non-compliances or other issues on a pathway; where responses were fairly immediate this was reported to boost their morale, and users were more inclined to engage in feedback again, especially when their question was resolved:

…I looked up the osteoporosis guidelines. I used the links that did … and then it didn't take me through to… And it became apparent that it was the New Zealand flag at the top, and ___ is... It's different per region. It's international. I fired off an email, saying here's the correct link - can you have a quick look. And within 24 hours the editors had looked at it, dealt with it, said thank you, and it was updated and it was working beautifully. So, they are incredibly responsive if people are willing to… It's very encouraging…'(GP: I7)

The following GP recalled a positive experience when feeding back a query on blood pressure and the information needed amending:

'I did exactly the same with the blood pressure targets for diabetes. And they changed them within 24 hours, saying thanks for... Thanks for identifying it, and letting us know what the real ones are. We've changed it. And it does make you buy in, that sort of thing…'(GP: I7)

However, another participant in the same practice described a situation in which he experienced the service from the pathway was unavailable. The facility in secondary care was still being developed:

…Certainly outpatients, it's not altered anything I've done. Hospitals - same day referral for assessment, it's been frustrating because there's times we've followed the pathway and then been told at the other end they agree that is the pathway, but they don't have the resource, so the pathway is not operational…(GP: I7)

One practice manager referred to the experiences of GPs in her practice and reflected on the importance of accuracy and completeness of pathways which was a theme running through much of the data:

'…There's loads of topics that are missing from there. And then, like what I was saying, there's lots of stuff relevant from New Zealand, because it's been copied from there. So, it really needs... More and more stuff needs to be added. Depending on, you know, what we need. Whatever our GPs are requesting (Practice Manager: I10)

A member of support staff had fed back a suggestion via the DOT system, about the possibility of accessing individual contact numbers for practitioners for the mental health crisis team in Sunderland as she had waited 20 minutes for a response to telephone calls to the main number. She

had received a quick response to her query but the service was unable to agree to the suggestion.

There were mixed experiences of using specific pathways ie GPs felt some local guidelines differed from the NICE guidelines (pre-diabetes pathway). A GP reported this difference the pre -diabetes criteria is reported to still differ from NICE guidelines and the GP felt frustrated and reverted to using the NICE guidelines. An appraisal of the content of individual pathways was not part of the scope of this evaluation but could be included in future studies of compliance.

In summary, 'accurate' pathways and perceived 'completeness' of the system were important mechanisms which impacted on user perceptions. If the content was not localised or perceived to be inaccurate in terms of the evidence base or if the services in the pathways were not available, there was an impact on user perception of the value of the system and further use.

4.4 Configuration 4

Context: Availability and access to HP

The first phase of the implementation in South Tyneside focussed on the development of 50 pathways for go-live. It is understood that this was process resource intensive in terms of project team and clinical editor time. Local training, and IT support allowed staff in general practices to access the tool from their desktop computer with one single log on for the practice, post launch. This meant data on individual use was not available at the start of the evaluation, however a solution to this was implemented towards the end of the first phase of evaluation and will allow identification of individual users (subject to consent) and a more targeted approach to support those currently not using the system.

The design of pathways is reported to affect perceptions on accessibility. Sometimes, where pathways are complex many screens are viewed before decision making takes place. GP participants reported that design and information in pathways is integral to the quality of pathways and can affect their perceptions on the value of using the system.

Mechanisms: System access; Design of pathways

There were some challenges identified in relation to the use of EMIS, the GP clinical record system, which self populates the patient information, and the need to switch between screens when using HP to look up information but EMIS is required for record keeping and referral:

> *Yeah, I think if we were using the referral forms actually on Health Pathways, then… Of course, we use the forms that are on EMIS here, and they're already… So, they may have been taken off Health Pathways and put on EMIS, but we use them off EMIS because that's how we do it electronically. It self-populates itself* (GP:14)
>
> *'…So if you're going to use the health pathways, maybe you can have a link there which will open up the referrals or connect it to EMIS…'(GP:10)*

The system was perceived as '*simple*' by many of the users, and was reported to have been accessed by most of the participants in this evaluation:

> *'…Literally, you click on the localised pathways and you've got your list. You click on the one that you want – so say, for example, this one, hypothyroidism. And it's there. Yeah, you can expand all your dropdowns, and that's it. It's there. And if you need to click on any of the*

links, they're there. You just click on them and it takes you… So it's so user-friendly…' (SL: I1)

However, some found there were too many 'clicks' to get to where you needed to be in the system:

'I think sometimes you can get lost in a lot of boxes. And I think… So, for example, if you go into the subject, you've got a certain specific area, and there might be links and then you go into that link and you go to another box and then you go to another link in that box and you go to another box… Sometimes you can get lost in the boxes, would be my only thing…' (SL:18)

Another participant said, *'I felt like I was sieving down a lot of stuff to find out what I was looking for',* when they tried to look up HBA1C criteria for certain patients.

The GP below experienced difficulties both with the content and time needed to use HP for patients with multiple symptoms/health issues, especially when a user is in front of the patient:

I can't remember what the condition was, but it was a patient who had a number of different health conditions. So, one of their health problems meant that the straightforward Health Pathways pathway would have been inappropriate in their case, because of their other health problems. And I'm conscious it's a guideline, not a set of rules. But I guess we just must take that into account when we're using it as well (GP: I14)

Users were keen to share their views on what could be improved in the system. The design suggestions from GPs who were using HP are generally of a practical nature. One clinician suggested the process of going back to the main page could be improved:

'…So there might be an easy way of a back button to get back to the original so you haven't to then go back through each box…So I think part of it could be designed that major sub-headings and sub-sub-headings, but have a quick route back to the major heading (SL:I8)

'There could be an added feature in each pathway showing if it needed a value based approval…' (GP: I14)'

Another participant felt it was sometimes difficult to find information that had been previously accessed and been positive:

I printed off an asthma management plan for a child once. And it was good. But for some reason I can't access it again, but it was really good (GP: 14a)

Some nurses felt separate pathways could be developed for nurses via a drop- down box because they felt they did not need the level of detail required by GPs, and they sometimes found the non-localised pathways confusing:

Yeah, so if you go to diabetes and then a drop-down menu of the things within diabetes that

you might want to look at, rather than having to go to diabetes and then read through all the stuff and click on the hyperlink. A drop-down menu, maybe, at the top (Nurse practitioners: I14)

Social care managers are currently developing pathways within the HP system following attendance at the launch. Pathways on older people and frailty are being developed to keep patients out of hospital. A frailty workshop group from the CCG and other partners is in place to deliver this specific pathway.

In summary, there were different approaches to the design process for pathways, with the content being 'discussed' via email rather than planned subject matter groups/meetings and there was a perception that this counter-intuitively impacted on the timescales for completion of the development work.

Outcomes: Pathways uptake; complexity of pathways; reported usefulness of the system

At the time of reporting there were:

- 116 live pathways in place
- 57 pathways in development (from August 2016 -to date)
- 87 feedback threads ie feedback from users on amendments to the system, queries

Data on the use of HPs is available to the project team. Google analytics data has been extracted for the period August 16th 2016 - May 31st 2017 and analysed alongside the findings from the qualitative study.

Figure 1: No. of Sessions on South Tyneside HealthPathways for the period August 16th 2016 –May 31st 2017 with linear trend (total number of sessions 7544)

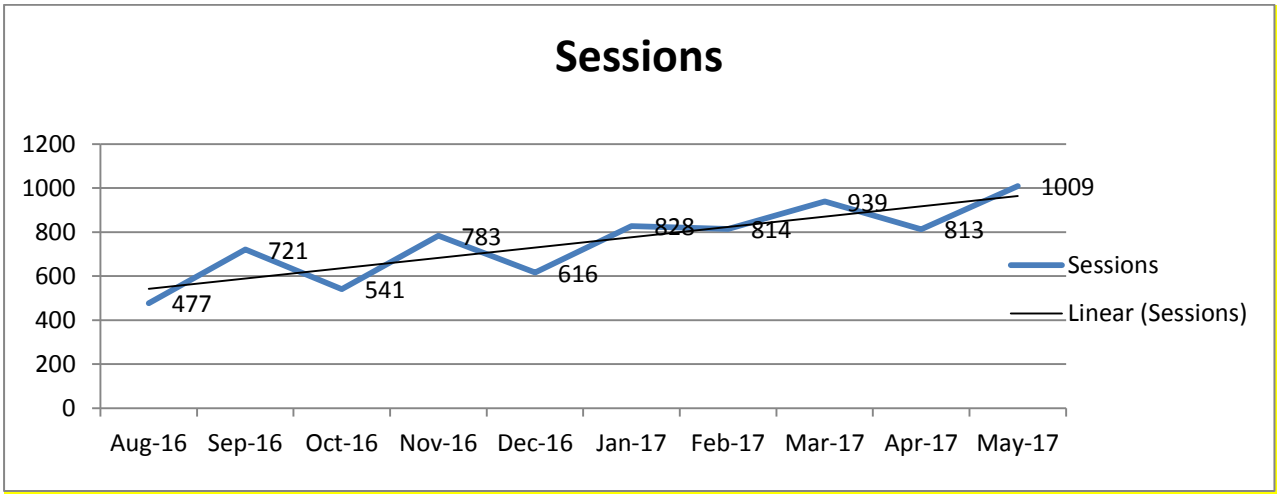
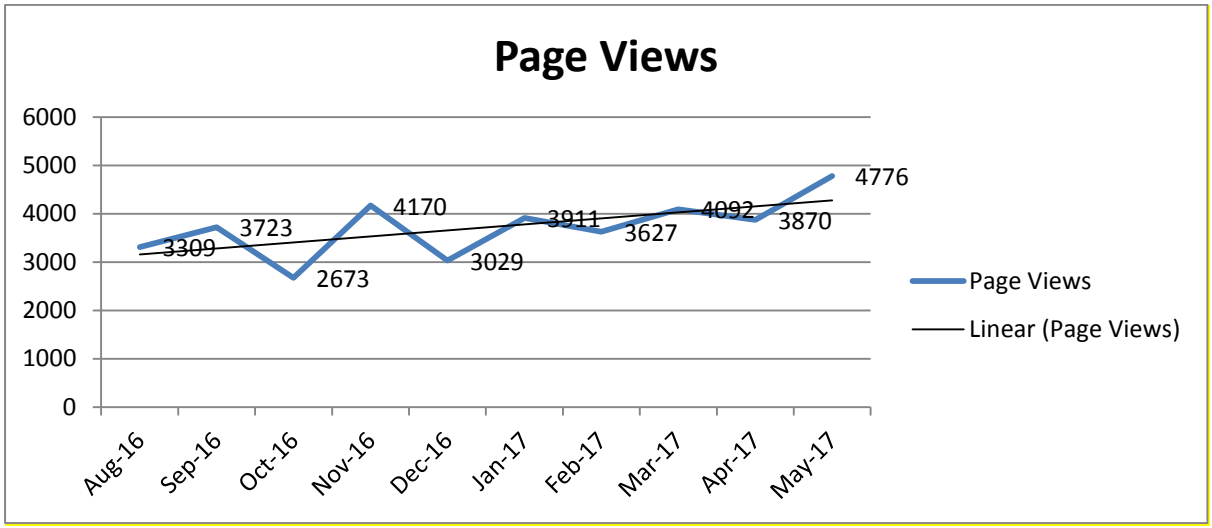


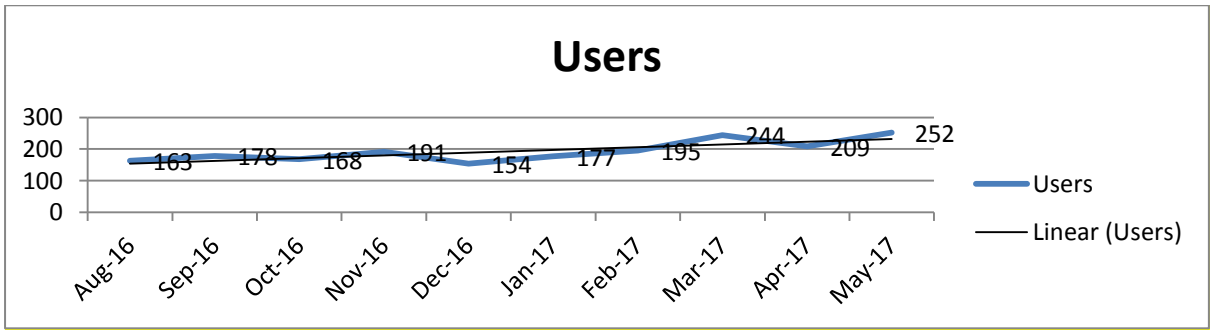
Figure 2: No. of page views of South Tyneside HealthPathways for the period August 16th 2016 – May 31st 2017 with linear trend (total number of page views 37186)



There has been a total number of 7544 sessions on HP and 37186 page views since go live. In May 2017 the number of sessions has increased to 1009 (from 477 post launch) and the number of page views to 4766 (from 3309 post launch). It appears therefore there is an increase in utilisation of HP since it went live.

The graphs show a steady increase, suggesting the current live pathways are accessed more regularly by practitioners. This could mean that users who initially started to use the system are now using it more frequently, but also could mean that there is a greater number of users who are using the system (as shown below). The most likely scenario is that there is a combination of increased usage by initial users and more users coming on board, which contributes to these figures.

Figure3: No. of Users from Aug 2016- May 2017 on South Tyneside HealthPathways with linear trend



The figures on users of HP are important for SLs to assess the effectiveness of implementation plans and in May 2017, 252 users logged onto HP. The number of GPs in South Tyneside is approximately 130, indicating multiple log-ins by some users as well as use by others than GPs (backed up by interview data). At the time of writing, the ability to understand which users these are, was not available. We understand that this is in development and information about individuals' use (subject to consent), would be available for future reporting. This type of information would be useful to enable more targeted approaches to improving engagement with the system. In relation to

multidisciplinary team use interviewees reported use by other system users such as nurses, practice managers and administrative staff and that a wider range of users would increase the overall value of the system, although at the moment it was still largely perceived to be a 'doctor' system:

> *'…And the Health Pathways is mainly, sort of, clinical, sort of… Doctor-orientated. So, I don't know how… It might be partially useful for district nurses…'(GP: I14a)*

There were many participants using HP but there were also participants who had not heard of it at all. Although, when participants were asked about the effectiveness of the implementation of HP both SLs and GPs explained more and more people seemed to be talking about it including practice nurses, district nurses and health care assistants:

> *'…When we go to meetings now, particularly when primary care are represented at the meetings, we're hearing more about the GPs using Health Pathways as well. So, it feels like momentum is building with it, without a doubt...'(SL:12)*

There was a trainee GP who said she had not used or heard of HP, both, in practice or at the hospital. She suggested it should be part of their induction. Interestingly, the practice manager (present at the focus group interview too) said it was explained at induction. The other two new GPs present recalled it was introduced at their induction.

Figure 4: The most frequently visited pathways in South Tyneside (localised and non-localised) – 'top ten'

Localised Pathways	**Page views**	**Non-localised pathways**	**Page views**
COPD	428	End of Life	105
Heart failure	406	Hyperlipidaemia	74
2 week wait suspected cancer referrals	350	Differentiating Asthma from COPD	58
Atrial Fibrillation	321	Insulin – starting and ongoing management	56
Integrated Care Teams	306	Type 2 diabetes – newly diagnosed	53
Deep Vein Thrombosis	250	Abnormal Liver Function Tests	52
Non-acute cardiology	214	Advanced Care planning	52
Chronic kidney disease (CKD) in adults	213	Cardiovascular risk assessment (CVRA)	49
Diabetes continuing care	201	Spirometry interpretation	45
Diabetes diagnosis	200	UTI in adults	45

It is interesting to note that the pathways which are localised are generally viewed more often and usage appears to be related to the most common conditions encountered or services required. Further discussion on the perceived importance of 'localisation' is found elsewhere in the report. It is

interesting to note that some GPs expressed views that the more common conditions were less likely to be viewed by them on HP. Feedback of data to users about pages viewed etc might well encourage uptake not only by new users, but may promote wider use of the system by existing users.

The complexity of some pathways was a theme which was perceived to impact on the use of HP. Some GP participants reported that it was sometimes difficult to follow a pathway when they were consulting with patients, and time was an issue. A couple of GPs said it was difficult to follow complex pathways, more so when patients had more than one condition and symptoms were not attributable to a specific pathway. In these situations, GPs preferred to ring a clinician directly and discuss individual cases:

> *…it was a patient who had a number of different health conditions. So, one of their health problems meant that the straightforward Health Pathways pathway would have been inappropriate in their case, ….. And I'm conscious it's a guideline, not a set of rules… But it's when it starts to get complicated and you're not quite sure, …. that's when I don't think Health Pathways really answers those questions. So, you go back to your default position and maybe ring someone at the hospital for advice or speak to a colleague. (GP6: I14a)*

Another GP felt it was better to call a patient back about a question on the criteria for lipid control and blood pressure:

> *…the reality is I knew this was going to take some time for me to get to the bottom of. You know, to answer their question and I said, "I'll look this up later and I'll get back to you." So, I didn't do it with the patient in front of me* (GP: I12)

On the other hand, the following nurse practitioner highlighted issues on information reaching the appropriate service providers and described her experience and efforts in trying to use the system:

> *…And the rheumatology services in this area are delivered in Sunderland. But the pathway is very clearly for South Tyneside. So, from the point of view of following the pathway and the bloods and the X-rays that are required by the pathway, those are not currently transferable to Sunderland. And they... There isn't a, kind of, national library of X-rays. So, in terms of coordinating the patient's appointment with a service outwith South Tyneside, but with investigations from South Tyneside. It just pinged into my mind to ring and ask if I get these X-rays done at Sunderland, at South Tyneside, will the Sunderland clinician have access to them when the patient turns up for the appointment. And the answer was no. So, the pathway was to send them to South Tyneside, but they were going to end being re-referred at Sunderland. Unless you can guarantee the images will be there* (OSS: I17)

With reference to service configurations, a practice interviewed reported that when they complied with following pathways in HP, the service was not actually provided at the hospital. The findings suggest that to maintain momentum and to optimise the use of HP, it is important for those developing pathways to ensure services are operational too.

In summary, the HP system was described as user friendly, and easy to grasp with minimal training. For some, however, it was perceived by some to be too simplistic as far as information technology advances and potential functionality. Had it been compatible with the EMIS system, utilisation may have been higher. We understand that this functionality is now in development.

The complexity of some pathways meant more time was spent looking up information which was reported to impact on the use of the system, especially if patients were present. It was also reported that those pathways that were simple in content (and therefore more likely to be developed quickly, were reported as less likely to be accessed by GPs because GPs were already aware of the content. Nevertheless, findings showed that HP was positively viewed by most GPs when pathways were populated, local and complete.

It was not the purpose of this evaluation to specifically identify issues in relation to the HP system, or specific pathways, however the following points were raised and should be considered in relation to further rollout of HP going forward:

1. Differences in medical terminology/language between New Zealand and England
2. It would be better to have separate pathways for different practitioners, for example, GPs and nurses as nurses perceive they need less detail for the role they have
3. Improved design and layout of complex pathways. For example, a drop-down menu so that practitioners go straight into what they accessed system for rather than follow through links until they reach what they need eg Diabetes and pre-diabetes criteria)
4. The need to differentiate 'literature' in HP, such as patient information for new patients

4.5 Configuration 5

Context: Decision making and referrals

The HP system is still relatively new and many GPs tended to conform to their standard working practices in relation to making referrals. Their reasons for this included having limited time to engage in a new system which may not continue in the future. They had found their own ways of working which they perceived were effective for them e.g. ringing up secondary care practitioners about their patients:

> *'…Personally, I tend – because I'm old-fashioned and old, and know most of the clinicians – I pick up the phone and ring the clinician and say, "Look, this is the individual circumstance." I probably do it with the same frequency* (GP; *I17*)

However, when it is used for referral GPs use HP to 'check' to see if the pathway is the same as it was previously. The referral is then made through EMIS Health the clinical records system which also provides patient appointment booking, clinical records and electronic prescribing Suggestions were made to improve this process for more effective referrals. One method is explained below:

> *…And I type in 'back pain' into your clinical system, it would be really useful if Health Pathways, in the background, was finding me the back-pain pages…So that… I have an option somewhere on the screen to say "Do you want to go directly to the health… The back-pain page?" And I can go directly into it… If it did that, it would be worth the hassle of me having to log in separately into Health Pathways rather than it just being another website somewhere. Because the Health Pathways has got no idea what's happening in EMIS at the time. They're two separate things. They're not integrated…(SL: I12)*

Practitioners using HP explained what the benefits were for them eg to make decisions about patient referrals and others obtain clinical information. Some participants used HP as a directory of services, and others as 'confirmation' of their knowledge:

I've used it more as a checklist. So sometimes I use it to confirm that I'm doing everything right…' (Nurse Practitioner: I17)

However, secondary care clinicians identified cases where there was not compliance with the pathways where referral is not indicated:

> *…I get the feeling that not all of them are using it. I think there are certain conditions that I deal with, where if you follow the pathways it's all there. What you need to do. But we're still getting referrals potentially for some of these cases where… Where, potentially, if you follow the pathways, you wouldn't refer…From my own experience and talking to some of the colleagues here, we've not really noticed as much of an impact as, maybe, we thought there would be..'* (SL: I19)

Non-compliance with agreed pathways in the HP system had not been within the scope of this evaluation as data/information about referrals due to non-compliance is not yet available. It would be useful, however to carry out this type of analysis as part of future monitoring of transformation plans. Developing and strengthening such data/information to improve pathway compliance is a recommendation.

Mechanisms: Use of HP as a referral system/ Resource directory/ Two-way communication/task transfer

Some participants described issues they had with following pathways as part of the decision-making process, in particular with reference to referrals and felt it had not impacted on their referral patterns:

> *'…Certainly outpatients, it's not altered anything I've done. Hospitals - same day referral for assessment, it's been frustrating because there's times we've followed the pathway and then been told at the other end they agree that is the pathway, but they don't have the resource, so the pathway is not operational. Other than the DVT pathway, I can't think of a single primary to secondary care transfer that's been effective. So, I'm using it more as a... as a medical resource…*(GP: I7)

The differences in the referral process between the two countries New Zealand and the UK were also perceived as a challenge. These differences meant that GPs had to take other technical details into consideration, when using non-local pathways. Comments were made on the following key areas:

- Language/terminology – for example, for 'acute' and 'emergency'
- Referral options – for example, UK operates an electronic referral system (ERS) in which patients can choose the hospital they want to be referred to
- Wait times - for example, UK operates a 'two week' wait system for cancer referrals

The quote below is from a GP who was new to the area and found it a useful as a clinical directory as well as for pathways.

'…I use it reasonably regularly. I think that it's an excellent resource for certain conditions. (GP: 14)

Participants drew extensively on the possible benefits of having pathway information in one place and it being kept up to date:

> *'…Where all the information that I wanted to have at hand in a consultation would be there. Rather than running around, trying to find it on the various hard drives or computers, or various files, etc. easily usable, consultation-friendly, ….. ' (GP:I9)*

> *'…And the advantage of Health Pathways - one of the things that was sold to us, was the advantages of if a pathway changes, they change Health Pathways. So, all you have to do is go in to Health Pathways and it will tell you the current pathways. Because quite often we use pathways that are no longer present…' ,(GP: I7).*

GPs were not the only regular users, OSSs used HP mainly as a directory:

> *'I've used it quite a bit, because I'm one of the secretaries at the practice. And I've used it by looking for, like, telephone numbers or fax numbers to see if anything has been changed'* (OSS: I17)

(although she still kept her own book with numbers).

New and experienced GPs have different perspectives on HPs. Where pathways were simple GPs reported they did not need to use HP for decision making or referrals, especially experienced GPs. New GPs used HP as a directory to find out about local services and up to date guidance:

> *I've had a couple of occasions when I've wanted to contact people from the district nursing team, and things like that. There's the integrated care teams. Their contact details are in there for… For each surgery. Each team. So that's good. To use as a sort of telephone directory to get in contact with them* (GP1: I14a)

> *So, knowing who the first point of contact is for a local service is helpful* (GP6: I14a)

New GPs said they accessed HP regularly, whereas more experienced GPs accessed it when they were less familiar with a pathway, for example, want to check what tests they need to carry out before a referral. However, one practice uses its own *'intranet pathways resource'* as first point of call because of familiarity and speed:

> *'…So, for example, memory management…I don't have to look up the healthcare pathway to know that I can… What I need to do in advance and what the memory management team want from us – so we'll do the bloods…all the rest of it in advance and then do the referral (GP: I17)*

Several district nurses felt the communication was one way, and would like more input into the pathways development and for patient information to be more meaningful and accurate when they are discharged from hospital:

> 'A *lot of our time is spent clarifying poor communication from secondary care. It is a massive bugbear to us all…you can't just say prescribe this drug without putting down, well, how long you want us to prescribe it for…The patient phones up and says, well, I was told to get all my*

medication from you. And I was discharged three days ago, and they said they were going to fax you, but they haven't' …(Nurse practitioner: I17)

'In principle, the system is a one-way system. So, its designed to help secondary care by us following pathways that they set out for us to follow to send the patient in. Perhaps one of the improvements would be if primary care wrote the pathway for secondary care to send people back out. What would…? What would our pathway look like? Before you discharge this patient, please be sure that… And some… Some actual, kind of, pathways back out into general practice'...(Nurse practitioner: I17)

On the other hand, another nurse practitioner was contacted by the HealthPathway project team on streamlining referrals for eye screening as part of the diabetes pathway:

'That was why I was approached … to see if there was an opportunity to promote screening within that site… So, it's just because everything is at their fingertips, there's no time wasted looking for referral forms. (Nurse practitioner: I18:)

A nurse practitioner in the hospital explained how referrals to her could be quicker but ultimately it is the GP who decides with the patient how frequently they attend the screening programme, (monthly or six monthly):

…We don't receive them electronically yet, we receive paper copies, but in terms of speeding up the referral process I would hope that having that information to hand – or if there was a query or a question or… We're easier to identify, and ring if there's, you know, any queries or questions around it...(Nurse practitioner: I18)

One GP commented on how he could see HP creating a 'them and us culture' if the process of design of pathways was not well managed/facilitated, the opposite of what the pathways are supposed to achieve:

*I've listened to my team today because, you know, I know… I do not know… I appreciate the volume of work that they (**hospital consultants**) do, but I don't know exactly everything that they do. And the soundbite is that if this is truly about integrated care – if this is truly about making things better for everyone within the NHS, then actually it's not working. Because if it's creating a them-and-us culture, that's not… That's no interface at all (GP: I17)*

<u>Outcomes: Use of 'specific' Healthpathways/improved patient care</u>

The benefits of complying with agreed pathways were articulated by secondary care. A clinician discharged a patient he looked after for over 10 years back to their GP and found this quite difficult:

…Last week, I was discharging a patient – very stable, on insulin, kidney disease stable – who'd I'd looked after for 12 years. And I made it clear, you know, "discharging you back to your GP, but you've got a safety net" etc… I think that's (ie HP) really the thing which has helped me to do that. And it can be difficult. Because one of the things with diabetes is you

do build your relationship with patients. But ultimately, if your clinics are overbooked, are you really doing a service? And actually, is someone else missing out as a result of that? So, it can be like cutting the umbilical cord… (SL: I8)

This participant felt communication was always good between GPs and clinicians but HP helps:

…I think the relationships were good, but certainly I think this has helped us build, you know, the relationships more in terms of the professional aspects and… And also allows us to get to GPs which are either new or GPs who have been around for a while, who have always had frustrations about information, you know, gathering etc…(SL:I8).

In contrast, some GPs did not feel communication was any better:

…So far, it's had no impact on my relationship with hospital clinicians… it has been a resource I've used in consultations with patients. So that we both know that I'm following the current guidance…(GP: I7)

When participants were asked if HP had improved their relationships with patients and clinicians, the responses were mixed. Participants, mainly GPs, were unsure of how HP would improve their relationship with patients. Participants could see how better communication between primary and secondary care may emerge, resulting in greater compliance to the pathway:

…I think it has the potential to, if we genuinely believe that shared decision-making and people being involved in their own care, enables and empowers them and increases... I don't know what - satisfaction, compliance. Then me being able to go through a pathway with someone, I think would be helpful...(GP: I7)

Nurse Practitioners and District nurses reported that pathways were 'one way' when primary or secondary care clinicians referred patients to them, that there was still very little information about patients referred to them to follow up in primary and community care, and a lot of their time was spent on 'chasing up what they were supposed to do'. This is an area that could be explored further in the next phase of the evaluation as the range of pathways develops and a wider group of users comes on board.

4.6 Configuration 6

Context: Resources to deliver HP

The focus of the South Tyneside Integration Board is now to model transformation based on the Canterbury model, supported by an 'alliancing group'. This approach aims to draw providers of services together and for them to be made accountable to deliver services in a more integrated/joined-up way and to drive efficiency. It was reported that for now, both NHS trust providers have block contracts ie they are not paid by admission, so they can transform services and shift care without feeling a financial penalty. These alliances will drive forward clinical service reviews which will in turn transform services which will then be agreed and described as part of the HP system. There are currently clinical reviews in place in key areas eg stroke, across the key providers of acute and rehabilitation services (City Hospitals Sunderland NHSFT and South Tyneside NHSFT). These developments will then become pathways within the HP system.

As mentioned above in relation to the development time required for pathways, there are currently

two part-time clinical editors who spend a combined total of 0.6 WTE of their time on HP. The project team used the time allocated to full capacity (and resources are reviewed every three months). It was indicated at the time of initiation of the project that if more pathways had to go live than planned then this would need further resource in terms of clinical editors' capacity in STCCG, and the technical writers from HP.

When pathways were delayed in development, the project team and clinical editors try to progress the work by an informal escalation process, contacting the relevant practitioners by email or telephone. It is difficult to determine whether this process aided the development of pathways or not. There were however 57 pathways in development which were at different stages of completion, with varying reasons for why some took longer to develop than others including lack of time. This suggests that capacity is an issue and that if service transformation is to be completed quickly and defined as part of the HP system, this will need to be addressed.

Mechanisms: Services configured in line with HP; incentives to use and develop pathways

SLs and participants were concerned about the guidance being up to date in pathways in HP. Comparisons were made to the resources given to the development of NICE guidance nationally. Once a pathway is agreed by the clinical editors and the subject matter expert the pathway is then sent for wider review. It is usually sent to practitioners with a special interest in the area. During a focus group interview a GP said he was unable to carry out any wider review work for HP because of time, which resonates with what a SL felt about the wider review process:

> *The wider review bit, I guess, is the bit that could be strengthened (SL: I12).*

If this wider review and agreement about pathways content with key users of the system is not carried out a delay, as described, above is inevitable. The resources to enable wider engagement in the development process is an important consideration. The evidence from Canterbury suggests that engagement in the content of pathways is a critical success factor in implementation and use, driving better use of services (Timmins and Ham 2013)

HP has been included by STCCG as part of the 'Better Outcomes' framework, a quality incentive scheme which includes payment and is a mechanism to encourage use of HP along with other quality initiatives. The total sum of financial incentive for each practice is not large, but some felt this helped with the implementation:

> *'…The CCG made it clear that in using the South Tyneside HealthPathways - and in particular giving feedback - that that would be part of better outcomes. So, in other words, you know, you're not going to get money if you don't use this (GP: 18)*

Financial incentive to use the system however was not mentioned often by users, indicating that this is not a driver.

Outcomes: Timely delivery; Return on Investment

A few SLs discussed the impact of timely delivery of new health pathways linked to transformation plans and the issues relating to return on investment.

> *'…Could use the system eventually to support contracting differently in the future as it will provide different evidence re referrals…' (SL: I13)*

Another SL however, reported that a pathway was selected for development where there was

controversy, or high usage of health services:

> *'I think they were selected with good rationale. We chose areas where there was either controversy or there was high usage of health services. So, we thought, by writing down what the pathways should be, it would have the biggest impact'···(SL:I12)*

The challenge is making HP the 'glue' which enables the system to work together on agreed high quality pathways 'at pace' to the support the efficiency drive. It is too early in the implementation to establish the cost-effectiveness of these early pathways, or compliance with a particular pathway or outcomes from investment in the HP system, due to lack of maturity of data and information linked to HP and transformation plans.

5.Discussion

The objectives of the evaluation of the implementation of HP in South Tyneside were to identify:

- What is the **context** of the implementation in South Tyneside? (a description of this is found in the initial report (embedded in appendix 1 of this report)
- What are the critical **mechanisms** for the implementation of HP in South Tyneside (what seems to work from the data analysed and what needs to improve)
- What are the initial **outcomes** which are emerging?

Based on our key findings, we also aimed to draw out some key recommendations for implementation of HP at other sites.

5.1 What works well (mechanisms and outcomes) and what could be improved

5.1.1 Governance of HP and the transformation agenda

There was clear evidence of the strong commitment of SLs to the implementation. The well-developed strong relationships across different organisations at senior level were viewed positively by the Canterbury team and were seen to be a key mechanism for enabling transformation. Most frontline participants interviewed appear to be willing to support the implementation process because they see it will aid decision making and referrals, however change fatigue was one reason cited for a lack of interest by some GPs. A few were reluctant to spend time learning about the system if it was going to change or be replaced in the future. As discussed in the initial report, the strategic vision for the role of HP as the 'glue in the system' is not yet well embedded with users.

5.1.2 Leadership and Relationships

Senior system leaders and clinical leaders were perceived to be focussed on the successful implementation of HP with the clinical editor role evolving to initiate some of the transformation work linked to HP.

There was an acknowledgement across the board that HP can add value to the roles of users, and ultimately to patients, however some participants in the evaluation were more engaged in using the system than others. It was observed that those who had attended the launch or were working with colleagues who had HP responsibilities, were more enthused by HP and the ethos of 'right care, right place, right time' than the concept of reducing hospital attendance or admission. This reason for the

lack of engagement in some areas could be attributed to the fact that interviewees had not been present at the launch event. This event appears to have been significant in terms of the visibility of leadership and the demonstration of the relationships with ST and with CDHB. Behavioural change processes at scale requires time, and targeted efforts, before the intervention is accepted (Rosstad et al 2015). The fact that the system has not yet been in place for a full year, would bear this out. A continued focus and clear message about the role and 'meaning' of HP to the system needs to be articulated.

Most GP participants felt HP could improve relationships between primary and secondary care but primary care clinicians felt that secondary care needed to be more involved in developing pathways with GPs. Many suggested that secondary care clinicians needed to attend the monthly education sessions which are in place and that this could provide the forum for discussions about HP and specific pathways and would improve relationships. The face to face approach was felt by some parties to be more constructive and efficient than email correspondence about pathway content

The education sessions (if multidisciplinary) would also encourage practitioners from different professions to work together more closely and to engage with HP. Nurse practitioners and community nurses who perceive themselves taking on more tasks from GPs as part of HP development in the future, felt that they too wanted more 2-way communication with secondary care clinicians. This is an important finding given that more tasks and care will be carried out in primary and community care as a result of the transformation plans

5.1.3 Project management; Processes for development of pathways; training

The project team are active and visible in managing the implementation of HP. The work in South Tyneside suggests the process of development and implementation of individual pathways is key and is reflected in other evaluations (McGeoch et al 2015). The resources to fulfil this function were considered from the preparation stages of the project and are discussed in more detail under 'resources' below. There is considerable preparatory work for go-live and we found that additional resource for the pre go-live phase may have been useful. This could then be offset with a tailoring of resources in the maintenance and sustainability phases. Despite the challenges of the implementation of this significant initiative in a relatively short timescale, our findings, both quantitative data (from the number of users and page views) and qualitative data (from feedback from users) suggest that HP is starting to embed, and as more (and diverse) users come on board eg community nursing and social care, the benefits for the system will become more evident

Our findings indicate that face to face contact by potential users with those directly involved in developing pathways has a positive effect and ways of making this happen should be considered. The education sessions were seen to be key to this process. Feedback on progress of HP system development and individual pathways may also enhance engagement and use of the system.

Concerns were reported over the process of developing pathways in relation to the need for GPs and consultants who were acting as subject matter experts (SMEs) to have time to develop pathways, which does not appear to have been anticipated or provision made for. Currently there are no defined timescales for the completion of pathway content. Whilst there would need to be some flexibility (according to the complexity etc), there is a perception that the development time for pathways is open-ended which can lead to delays in completion, and frustration for system users. There appears to be some 'informal' escalation process ie members of the project team and clinical editors will contact relevant SMEs by email or telephone, however it is difficult to determine whether this supported the completion times of pathways or not, due to the lack of data around the

processes/timescales for pathway development.

If the delays are not addressed then this number will increase as the requests and demand for other pathways increases. A prioritisation process for the completion of those currently in development would enable the project management team to take stock and plan effectively. A more structured and transparent approach that allows the status of pathways (and proposed timescales for completion for developers and users) would be beneficial. It appears that once content is agreed the sign off process with Streamliners *is* defined but there were some reports of delays with this process too.

In other HP sites, facilitators and GP liaison offices are employed as part of the HP project team to liaise between GPs and clinicians (AMLA, 2014; Mansfield, 2016). Such roles may help the completion of more pathways at a quicker pace. The concept of task and finish or working groups to support specific pathways may be more efficient than the reliance on email. It is our observation that it is the clinical editors and project management team who 'informally' carry out the facilitator and GP liaison roles identified in other sites

The challenges of delays to sign off and go live can potentially impact on engagement with the system. There was evidence of some tension in the relationships between primary and secondary care in relation to finalising the content, which in turn can lead to delays in sign off.

One GP practice was not aware of the free 'training' opportunities on HP. SLs were keen to develop an awareness programme for practitioners which would raise awareness of such options. However, most users felt 'training' was unnecessary as the system is simple to use.

5.1.4 Design of pathways

Where pathways were non-local, GP participants perceived national guidelines (NICE) to be more reliable. We found the quality of pathways influence utilisation, and the experiences of using local, complete pathways motivate and support practitioners in decision making and referrals. A more comprehensive assessment of the quality of pathways is suggested for future work. A study carried out by the University of Sydney (2016) identified four domains: credibility (can the pathway be trusted?); dependability (can the pathway be relied upon?); transferability (is the pathway relevant to its setting of use?) and confirmability (is the pathway linked to source data or evidence?). The use of this framework could be included in a future more comprehensive assessment of the quality/design of individual pathways. Such a study could influence the design and development process of local pathways

With reference to service configurations, one practice reported that when they had followed a particular pathway and made a referral, the service for which the referral was intended was not provided as specified, and this had given a negative perception of the HP system and the service provider. In order to maintain the current momentum and to optimise the use of HP, it is important for those developing pathways to ensure services included in pathways are actually operational.

5.1.5 Value to clinicians and patients

New GPs, in particular, used HP daily as a clinical resource. Other GPs and district nurses also used it to print off guidelines for patients. Some GPs reported that more incentives to use HP may increase utilisation, eg if use of the system by professionals could in some way contribute to continued

professional development (CPD). Other online clinical pathway systems on the market have developed functionality to do this.

The majority of participants are willing to support the implementation of HP because of the long-term benefits of it aiding decision making and referrals in relation to 'right care, right place, right time'. However, system fatigue is one reason for a lack of uptake from some GPs. A few practitioners were also reluctant to spend time learning the system if it was going to change. Issues of time to access or contribute to the development of complex pathways was also noteworthy

Those who were using the system consistently felt it was too early to assess the impact of HP on decision making and referrals (which is also outwith the remit of this report). However, it was evident that many were starting to see the potential impact for their patients by their reports of individual experiences.

SLs suggest more awareness raising is needed to optimise utilisation, which we suggest would increase referrals. This work is in line with recommendations on an evaluation of Hunter and New England (2013) on developing a marketing strategy to broaden and enhance GP uptake.

5.1.6 Capacity, resources and clinical input

There is an underpinning theme of a lack of capacity and resources to deliver the requirements of HP at the pace and quality identified. Both SLs and GPs as well as OSS described how, '*more money should be allocated to the first couple of years to the project and then reduced*', (SL: I12). Significantly, there is a consensus that a return on investment will be achieved but more resources are needed up front The additional resources required were largely unforeseen eg the time of primary and secondary care clinicians as subject matter experts and the capacity for the clinical editor role, particularly as their role evolves and as they perceived they will be involved in more 'transformation programmes' linked to HP in the future.

There appears to be the need for much 'ad hoc' communication around the development of pathways, which could be both a symptom and a cause of the 'busyness' of clinicians and lead to delays, incomplete pathways and resulting poor engagement by other users. Resource to progress the completion of pathways should be considered, as insufficient time, particularly for clinical editors and subject matter experts may impact on the quality of pathways in the system, and use by frontline staff. There was some evidence that a few users who had accessed HP were dissatisfied with the content and had reverted to referring to in-house clinical guidelines, NICE guidelines and other methods such as telephone conversations to inform their decision making.

Investment in regular and consistent HP awareness raising/training/education sessions was perceived to be a mechanism to maintain the current momentum and encourage more users as the system develops.

6 Recommendations

We make the following recommendations to strengthen the implementation of HP in South Tyneside and to support the implementation of HP in other sites:

- Improve data feedback in terms of HP usage with more information on why specific pathways were used, what was the value of using them and how can these be improved, if not accessed. and associated performance management information in relation to HP. Performance information linked to the transformation plans and HP, showing outcomes for

patients, referral patterns etc would inform Providers of future developments of prioritising pathway developments and evaluation of those developments. It would also support engagement of current and new system users so they understand the impact of HP and future developments. It would also help with any future analysis on return on investment.

- Review the roles, resources and accountabilities within the project management team (co-ordinator, project manager and clinical editors). Consider the resources required for the subject matter experts to facilitate timely completion of pathway content
- Review current pathways in development and prioritise to ensure timely completion. To support this define the responsibilities and timescales for completion of pathways with an escalation process
- Where there are local and national guideline variations in pathways, build in a mechanism for system leaders to highlight this in the HP, with explanation.
- Deliver further awareness raising and engagement sessions for future system users as pathways develop, to facilitate more 'task transfers' into primary and community care. Consider the use of the Education Forums as a mechanism to enable this.
- Develop a communication strategy for HP linked to transformation plans to engage the workforce with the transformation programme. Consider the feasibility of this communications strategy as a mechanism for engaging the public with the transformation agenda
- Develop a sustainability plan for HP delivery.
- Support the development of the emerging social care and voluntary care pathways drawing on the learning from this initial evaluation process
- Work with Streamliners/EMIS (the clinical records system) to consider facilitation of a technical interface between HP and EMIS

7 Conclusion

The evaluation of the first phase of the evaluation of the implementation of HealthPathways in South Tyneside has drawn out a number of themes which describe the context, mechanism, and outcomes which are emerging from the implementation and can inform the learning for future developments. The evaluation has, out of necessity (due to lack of attributable outcome data), been largely process driven. There are indications of largely positive engagement with the system from the participants sampled. The learning from this study has been built into the 'Readiness Checklist' in Appendix 3

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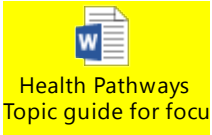
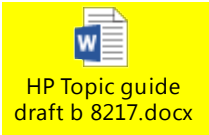
Appendix 1 Initial evaluation report

HealthPathways implementation in S

Appendix 2 Topic guides





Appendix 3 HealthPathways State of Readiness Checklist

1. Pre – launch

Strategy - does HP feature in the vision/strategy? If not, how can it be included? Are patients and the public aware of the development? If not, should you consider it?

Governance – where will HP be reported at strategic and project management level and how?

Relationships – **all** partners on board? Primary, secondary, community, social and voluntary sector

- Have we engaged with another site for support? Eg Canterbury

Resources – how will we contract with HP/Streamliners?

- Have we got Project management support, Clinical editors, Subject matter experts?
- Have we included the use of DOT (and feedback from users) in our plans?
- Identified funding?
- The impact of recruitment process and induction and training of project team?

Project planning – Have we got an overall plan with timescales?

HP and specific pathway development

- selection of pathways – population need, simple and/or complex, local and/or non-local, clinician specified?
- Have we got a process for developing pathways? With defined timescales where possible and escalation process if delayed? And which includes relevant parties? ie may need to have multidisciplinary input
- Are we clear about the role of Streamliners in technical writing?
- How will we use the DOT mechanism?
- Can we have an interface between existing clinical record and HP?

Baseline 'health and social care system' data

– do we have baseline data which could be used to monitor the effectiveness of our transformation plans, including HP?

-what reports can we produce going forward to demonstrate any impact from HP?

2. Launch, awareness and training

- Are all partners engaged in delivery of the launch event?
- All partners invited?
- Inclusion of Canterbury in the launch?
- Have we got awareness sessions by way of follow up to the launch for those that can't attend?

3. Post Launch/ongoing

- Ongoing awareness and discussion on progress with HP through local inductions, education/clinician/multidisciplinary team events?
- Consideration of HP drop-in sessions and other forms of 'flexible/tailored' support?
- Can we present reports by way of feedback to users on progress with HP development?
- Are we monitoring the progress of action on queries and comments on DOT to enable rapid feedback to users?

4. Evaluation

Phase 1 – Implementation process - Report on what works, for whom and in which circumstances – based on CMO (Pawson and Tilley 1997)

Phase 2 – Initial outcome evaluation – consider use of the HP survey, local performance data where available