



Ipsos MORI
Social Research Institute



RM Partners Evaluation

Early Diagnosis Interventions

Final Annual Report

April 2019

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Executive Summary

Executive summary

In 2017 RM Partners received Cancer Transformation Funding from NHS England to pilot a number of interventions with the overall aim of improving survival and quality of life for the local population. The interventions focused on pathway redesign in prostate, colorectal and lung cancers, and on achieving earlier diagnosis through improving cancer awareness in primary care, including helping to increase participation in screening. A list of the interventions concludes this summary.

The ambition of RM Partners is to deliver the improvements set out in the National Cancer Strategy: secure improved performance against the 62-day standard, improve cancer staging, see a reduction in cancers diagnosed through emergency presentations, and improve patient experience across West London. Beyond the interventions, RM Partners has sought to have a co-ordinating and influencing role across the system – promoting the sharing of learning and collaboration between providers.

Evaluation of the early diagnosis interventions

Ipsos MORI and York Health Economics Consortium (YHEC) were commissioned by RM Partners in September 2017 to conduct a process and impact evaluation of its Transformation Fund intervention projects. The evaluation objectives were to: assess the impact of each intervention on patient outcomes and experience; generate an evidence base to support the economic case for the interventions; provide an assessment for wider roll-out; and understand the value of RM Partners as a system leader.

This report concludes the evaluation. It brings together findings from the following evaluation activities: inception and familiarisation; qualitative case studies at sites implementing the interventions (138 interviews completed across the evaluation in total); multiple interviews with RM Partners' project managers; 30 consultations with stakeholders across the system including NHS England, Sustainable and Transformation Partnerships (STPs), Clinical Commissioning Groups (CCGs), Trust CEOs and Chief Operating Officers; quantitative analysis of available data on the outcomes of the interventions; qualitative interviews with 28 patients; and economic analysis.

Key achievements

Within two years, RM Partners has provided leadership and direction for the system, building positive and collaborative working relationships with system partners, allowing it to drive improvements in earlier and faster diagnosis. Its key achievements can be summarised as follows:

- It has surpassed its target of **improving 62-day performance by 3%** by the end of March 2019 (at a time when 62-day performance for England as a whole has dropped by 2.5%) and is consistently the highest performing Cancer Alliance for this metric.
- It has seen positive **improvements in cancer staging** and **reductions in emergency presentations** (outperforming data for England as a whole).
- The interventions have achieved a range of patient outcomes that are described in detail in the individual project chapters. Examples include:
 - **Reduction in prostate biopsies:** Between 51% and 58% of patients are avoiding an unnecessary biopsy on the RAPID pathway.

- **Reduction in DNAs:** The endoscopy DNA rate for Croydon has declined from 20% to 0.4% following the introduction of a nurse-led telephone triage in the colorectal pathway.
- **More efficient use of staff time:** The Optimal Lung pathway has freed up Clinical Nurse Specialist (CNS) and consultants' time through greater administrative support and fewer outpatient appointments.
- **Increased screening:** Over 41,000 non-responders have been specifically invited to take part in a screening test or health check and over 5,900 have been screened or checked as a result.
- **Increased GP training and support:** Over 1,000 GPs and practice staff have received training or support to improve their cancer awareness and referral behaviour.
- **Patients have been very positive** about their experiences of the pathway redesign projects (particularly in reference to the staff they have interacted with and the speed of the pathway), and pathway modifications have been well received.
- RM Partners has **accelerated pathway changes** through additional funding and hands-on project management which would have been implemented at a much slower pace in its absence.
- The **economic case** for a number of the piloted interventions has been demonstrated. The economic models developed for RAPID and the Colorectal Redesign pathway show the redesigned pathways to be financially sustainable into the future alongside bringing substantial benefits for patients (reduced biopsies and sepsis, fewer colonoscopies and fewer appointments) and for capacity (reduced outpatients and active surveillance). For the screening projects, the economic case studies concluded that while they are unlikely to deliver cost saving, the earlier detection of cancer has the potential to be cost effective, when considering patient gains in terms of reduced mortality and increased quality of life.

RM Partners' ways of working

The achievements of RM Partners have been underpinned by a number of factors, described below.

- The **seniority and competency of the senior team** was noted as a key strength. Particularly RM Partners' dedicated senior resource, with relevant expertise and close links to the National Team, coupled with a tight governance structure, has enabled the Alliance to unite the partnership behind a common goal, and generate faith and trust in its ability to deliver.
- **Expertise and motivation of the wider team** has also been crucial in driving RM Partners' achievements. For example, RM Partners' team has provided additional capacity to project manage a number of the interventions which has been crucial in supporting busy operational environments to deliver the changes required. However, more than providing capacity, staff at sites also noted that RM Partners project managers were knowledgeable and experienced (and therefore credible), as well as enthusiastic about driving improvements. This has been important in bringing teams together and inspiring change.
- RM Partners' governance meetings have been instrumental in **fostering greater collaboration between Trusts**, bringing senior leaders together regularly to discuss issues and best practice in a way they had not done before, and to engender a shared accountability for the delivery of cancer services.

- Stakeholders and staff at sites also commented positively on RM Partners' sharing of learning across the patch, with the partnership creating space to share best practice and collectively problem solve. Individuals able to comment on RM Partners' sharing of learning at the national level recognised its willingness to showcase its work and influence workstreams such as the national roll-out of the RAPID pathway, and cancer waiting times guidance.
- RM Partners has prioritised limited funds to areas where it can have most impact, with a focus on where the greatest problems are. It has done this through a critical review of its data, as well as aligning with national priorities. RM Partners was seen by many stakeholders to be influential in terms of its access to, and use of, data to identify priorities for the system.

Implementation lessons

Through the Transformation Funding interventions, RM Partners has generated learning regarding the successful implementation of these projects. Some of the variables described below are outside the direct control of RM Partners though it has still sought to influence local sites and practices positively in these areas.

Successful implementation of the pathway redesign projects has been assisted by the following aspects:

- **Internal engagement across all departments within Trusts is required:** The pathway changes depend on a number of departments (e.g. administrative, nursing, medical, diagnostic, pathology) collaborating, and all teams need to be brought on board early on. The success or otherwise of this can depend on strong clinical leadership, management endorsement and oversight, and the personalities of individuals involved. Where internal engagement has worked well and facilitated the roll out of pathway changes, representatives from all divisions have been involved from the project start, have attended regular steering group meetings, and clear roles and responsibilities have been established early on.
- **Sufficient diagnostic capacity, that in some examples can be helpfully ring-fenced:** The redesigned pathway changes rely heavily on capacity for diagnostic equipment and staff – in particular radiology but also pathology. Wider roll-out of these pathway changes necessitates the involvement of diagnostic specialists in the project set up and steering group, along with the upfront negotiation of ring-fenced time for diagnostics.
- **Engagement with primary care to ensure smooth referrals onto the new pathways:** For the Colorectal Redesign and Optimal Lung projects, the success of the pathway changes has depended, in part, on successful engagement with primary care. This is to ensure the correct referral forms and information are provided, patients are referred onto the appropriate pathways and (in the case of colorectal referrals), patients are forewarned of a telephone call from the hospital to undertake the telephone triage.
- **Flexibility in roll-out to ensure the pathway changes can be made and sustained:** Trusts implementing the three pathway redesign projects have all done so with some degree of local customisation. For example, the redesigned algorithm underpinning the colorectal telephone triage has been adapted to reflect the availability of diagnostics, and the sites implementing RAPID all triage 2WW referrals differently, with patients receiving different forms to complete on first contact reflecting the particular needs of the Trust.
- **Particular job roles, individuals, and skills to support delivery:** Although each Trust has had different recruitment needs to implement the redesigned pathways, a number of posts are considered to be essential to ensure the pathways run successfully. These include the pathway co-ordinators/navigators for RAPID and Optimal Lung. The redesigned pathway changes also required new skills which will need to be accounted for by Trusts looking to

adopt similar changes. This includes training for radiologists in reporting on CT colonoscopies (Colorectal Redesign), and in carrying out transperineal ultrasound guided prostate biopsy (RAPID).

The following lessons have been generated by implementation of the early access projects:

- **Providing a clear motivation for GP practices to take part:** Nearly all of the early access projects relied upon successful engagement of GP practices and their staff. For a number of the projects (Bowel Screening, Cervical Screening, and the GP Decision Support Tool), CCG cancer leads and Macmillan GPs have been key in successfully engaging practices. In addition, projects have been more successful where there are clear motivations for GPs and practices to take part. This may be because the project is considered a low burden (such as Bowel Screening), or where GPs or practices stand to benefit (such as free attendance at education events, or support with interpreting the NG12 guidance through the C the Signs tool).
- **Tackling information governance issues early on:** A number of the early access projects experienced delays in implementation due to complex information governance requirements that needed to be resolved. One of the challenges is the range of organisations which need to be involved in information governance arrangements in primary care (CCGs/ CSUs/ STPs/ individual practices etc.). The early access projects have provided lessons in how to handle these arrangements in the most efficient way, with the Bowel Screening project a good example of how information governance issues were streamlined through the availability of common data sharing agreements and templates.
- **Particular experience and skills are crucial to delivery:** The success of some of the early access projects are credited heavily to the involvement of particular individuals. For example, it was thought to be hugely beneficial that the founders of C the Signs were healthcare professionals and could therefore better appreciate the pressures facing GPs and the solutions they required. The marginalised groups project was also heavily reliant on the skill set and behavioural attributes of the community development worker (although they were supported by the Public Health team at Kingston and given direction by RM Partners).

Issues for consideration

RM Partners intends to continue investing in and focusing on many of the interventions piloted over 2017-19 which have shown promise – some of which will be funded by the additional Transformation Funding it has secured. As RM Partners continues its work over the coming year, there are some issues for consideration:

- Each of the redesigned pathways has local timeframes for key pathway activity to support delivery of national and local standards, such as the time between MRI and biopsy for RAPID, and the time between chest X-ray and CT scan for Optimal Lung. In some instances, these target timings have been too ambitious for pathways (at least initially), and are not always beneficial, either financially or for patients. While it is likely some target timings will be met with continued effort at Trusts, others may need to be revisited to assess the feasibility (and desirability) of achieving them.
- The time-bound nature of the Transformation Funding, provided as a pump-priming investment, presented some challenges for Trusts with regards to the recruitment and retention of staff needed as part of the revised pathways. NHS England might want to consider providing funding for a longer period than eighteen months to allow pilots to fully embed. Furthermore, it is important that national funds are released in a timely fashion so that pilot sites can maximise the amount of time they have to implement the necessary changes.

- RM Partners' governance structures ensure there is input from primary care and commissioners in its work. However, both RM Partners and some of its partners recognised the way primary care and commissioners are engaged and work with one another could be improved. How the governance structures of RM Partners and those within primary care/commissioning (including the two STPs) can work together therefore warrants further reflection and discussion from both sides.
- Stakeholders suggest that going forwards RM Partners needs to continue to ensure there is a strong narrative as to the decisions made regarding how the Transformation Funding is invested – namely the projects and sites selected, recognising that some stakeholders are hoping for what they perceive as more equitable funding across the partner providers.

Limitations of the evidence

There are some limitations to the evidence collected, the analyses that have been possible and the robustness of the data (with greater detail provided in individual project chapters). The key limitations to the evidence overall, which should be borne in mind when considering the findings and conclusions presented in the chapters that follow, are set out below:

- **Delays in data collected nationally:** Delays in the availability of nationally published data mean it has not been possible to assess whether RM Partners has met its targets of improving the stage at which cancer is diagnosed by 3.9% by the end of March 2019, and reducing emergency presentations by 3.3%. Similarly, as of April 2019, data are not yet available to assess the impact of RM Partners' screening initiatives on the earlier detection of cancer.
- **Data availability:** In some instances, a lack of available data at the site level means it has not been possible to make definitive conclusions regarding the intended impact of interventions and it therefore has not always been possible to quantitatively evidence conclusions drawn from the qualitative interviews. This re-emphasises the importance of clear specifications about the data required, delineation of responsibilities for data collection, and potentially greater involvement from RM Partners and/or site data analysts to assist sites with data collection. The patient navigator role is central to ensuring data is collected in a timely way – and RM Partners has emphasised the importance of this role in its service specifications for further roll-out.
- **Patient comparison:** It is not possible to draw conclusions on how patient experience has changed as a result of the introduction of the pathway changes because patients were not surveyed prior to pathway changes taking place. However, it appears that the pathway modifications have been well received by patients.
- **Economic viability:** Economic assessments were not undertaken for all of the Transformation Funding initiatives. This was informed by the prioritisation of resource but also in some cases (such as Optimal Lung) where there was a lack of data available for analysis. For a number of the early access projects, the data available was not considered viable for economic synthesis. The early access projects are, by their nature, challenging to analyse economically due to the lack of available data on what would have happened without the intervention being in place. To address this, evidence from the literature, coupled with project implementation data, have been used to model the potential economic outcomes, as in the case of Cervical and Bowel Screening.

The Transformation Funding interventions

	Intervention	Description
Faster diagnosis through pathway redesign	RAPID pathway for prostate	RAPID intends to reduce the time to diagnosis by streamlining diagnostic tests into a one-stop model (MRI and biopsy on the same day) or two-stop model (biopsy within seven days of the MRI); avoid unnecessary biopsies (and hospital visits) for men who do not need a biopsy by triaging them out after MRI if they are low or no risk; and provide more accurate diagnostics by using fusion technology for biopsy.
	Colorectal Redesign pathway	Key features of the pathway in comparison to conventional alternatives are: referral of patients using the electronic referral service (e-RS) though this has since become mandatory; nurse-led telephone triage; straight-to-test (STT) diagnostics; and a redesigned clinical algorithm underpinning patient triage.
	National Optimal Lung Cancer Pathway (Optimal Lung)	RM Partners' pilot has focussed on implementing and delivering the early diagnostic aspects of the Optimal Lung pathway. This is centred on implementing straight-to-test (STT) for a CT scan, test bundling, rapid turnaround times for reporting results, use of protocols and flexible scheduling.
Early diagnosis (early access)	Bowel Screening	This involved trained Health Facilitators contacting individuals who had not responded to a bowel screening test in the last six months to encourage their participation, with the aim of bringing West London in line with the national screening uptake target of 60%.
	Cervical Screening	This project was designed to increase access to cervical screening by offering extended screening clinics in a variety of locations and at different times/days of the week.
	Marginalised Groups	This project was set up to increase cancer screening among marginalised groups in West London, largely through community engagement.
	Low Dose CT (Lung) Case Finding	This project aimed to diagnose patients with lung cancer earlier by identifying the population at increased risk, and then inviting them for a Lung Health Check and, where eligible, a low dose CT scan.
	GP Decision Support Tool	RM Partners has trialled C the Signs – a digital tool to assist GPs and practice staff to successfully identify cancer symptoms and refer appropriately in response.
	GP Education Events	RM Partners funded six day-long education events aimed at GPs and other practice staff to assist them in interpreting the NG12 guidance and being able to recognise potential cancer symptoms at an early stage.
	Safety Netting	A Safety Netting tool was piloted in GP practices across three CCGs in West London. The tool introduces a standard approach to tracking and monitoring patients who are at risk of cancer.
	Dermatoscope	Three GPs in Sutton were provided with dermatoscopes (equipment to enable more accurate identification of types of skin lesions) and 10 three-hour training sessions with a senior dermatology consultant with the aim of decreasing the number of inappropriate dermatology referrals into secondary care.

Introduction

1 Introduction

Ipsos MORI and York Health Economics Consortium (YHEC) were commissioned by RM Partners in September 2017 to conduct a process and impact evaluation of its Cancer Transformation Fund early diagnosis intervention projects. This final report concludes the evaluation.

1.1 Overview of the early diagnosis interventions

In recognition of the importance of early diagnosis of cancer, NHS England released Cancer Transformation Funding which RM Partners bid for to pilot a number of interventions, with the overall aim of improving survival and quality of life for the local population. The ambition of RM Partners is to deliver the improvements set out in NHS England's National Cancer Strategy, *Achieving World-Class Cancer Outcomes*¹. This includes earlier diagnosis: improving the stage at which cancer is diagnosed, and faster diagnosis: securing improved performance against the 62-day standard. They also want to see a reduction in cancers diagnosed through emergency presentations, and see improvements in patient experience across West London and beyond.

The interventions focus on pathway redesign in prostate, colorectal and lung cancers, and improving early access to cancer diagnostics. These priority areas were selected through a critical review of RM Partners' data and alignment of priorities of both the Sustainable and Transformation Partnerships (STPs) that sit within RM Partners' patch. The interventions have been implemented in a variety of settings and span traditional organisational and service boundaries: public health and screening, primary care and secondary care. More detail on the interventions is provided in Chapter 2.

It is anticipated that RM Partners will deliver outcomes beyond the interventions, by having a co-ordinating and influencing role across the whole system. For example, RM Partners expects to influence the processes by which cancer services are run beyond the service changes brought about by the interventions through sharing learning and promoting collaboration between providers across the system.

1.2 Overview of the evaluation

Evaluation aims and objectives

The evaluation had four primary aims:

- Evaluate the **impact of each intervention** on both patient outcomes and patient experience, looking at factors such as cancer waiting time standards and quality of life, alongside patient experience of how diagnoses are communicated, and the extent to which treatment is considered patient-centric. A key aim of the evaluation was to identify which aspects of the interventions have the greatest impact (both positively and negatively) on patients.
- Generate an **evidence base to support the economic case** for each intervention. The evaluation set out to assess the financial sustainability of each intervention to support future discussions with commissioners. In doing so, the evaluation looked at aspects such as the extent to which interventions generate efficiencies in pathways and in the wider health economy, and their implications for the efficient use of resource and capacity.

¹ https://www.cancerresearchuk.org/sites/default/files/achieving_world-class_cancer_outcomes - a strategy for england 2015-2020.pdf

- Provide an **assessment for wider roll-out** of the interventions, considering the 'critical success factors' which would allow similar results to be secured in other contexts, and the extent to which the evaluation findings support the wider roll-out of the interventions in West London and beyond.
- Understand the **value of RM Partners** as a system leader. The evaluation set out to assess the extent to which RM Partners is adding value to the system, and to identify the components of this added value.

The full list of evaluation questions is available as an annex to this report.

Methodology

The evaluation was structured into three phases: Phase 1 focused on familiarisation activities and concluded with the drafting of the evaluation framework; Phase 2 focused on early implementation of the early diagnosis interventions and concluded with the first annual report in April 2018; three quarterly progress reports were delivered throughout Phase 3 (April 2018-April 2019) in July and October 2018, and January 2019. This report concludes Phase 3 and focusses on implementation lessons from the interventions, the impact of activities and the economic case for the projects.

A number of activities have been undertaken as part of the evaluation, as summarised below.

- **Inception and familiarisation:** The evaluation began with an inception and familiarisation stage to understand the work of RM partners and its intended impact. This comprised a desk review of strategic and operational documents associated with the early diagnosis interventions, and familiarisation interviews with senior personnel within RM Partners and all RM Partners intervention leads.
- **Qualitative case studies:** For each intervention, a range of individuals were interviewed by telephone to get a rounded view of experiences of implementation and views of the impact the interventions were having on patient experience and outcomes, to triangulate with quantitative data. A total of 138 interviews were carried out at various points in the evaluation; March/April 2018, and between October 2018 and April 2019. These included clinicians, nurses, diagnostic specialists, cancer managers, administrators, GP leads, and commissioners who could reflect on their experiences of implementation and the emerging outcomes and impacts of the interventions. RM Partners' project managers were also interviewed at stages throughout March 2018 to April 2019.
- **Stakeholder consultations:** 20 interviews were completed between January and April 2019 with stakeholders who were able to comment from a system perspective on the activities, leadership and impact of RM Partners. Interviews were carried out with individuals in NHS England, Sustainable and Transformation Partnerships (STPs) and Clinical Commissioning Groups (CCGs), as well as Trust Chief Operating Officers (COOs) and Chief Executives in West London. Two interviews were carried out with the chairs of RM Partners' Patient Advisory Group (PAG). These interviews build on discussions held with stakeholders in April 2018 when ten interviews were carried out with a similar group of individuals.
- **Quantitative analysis:** Where project level data on outcomes is available, it has been included in this report, including data generated through local patient surveys where these have been administered by RM Partners. The report also draws on RM Partners' performance against the 62-day cancer waiting time standard.
- **Qualitative research with patients:** Interviews were carried out with 28 patients who have been through the RAPID prostate, colorectal and lung diagnostic pathways. These patients were invited by their Trust to opt-in to the

research programme. The interviews were designed to explore patients' experiences and identify what has both contributed and detracted from a positive patient journey.

- **Economic analysis:** Detailed economic analysis plans were developed for each of the interventions, to determine the type of economic analysis that was possible. For the pathway redesign projects (RAPID and Colorectal Redesign), interactive economic models were developed, using bespoke activity and cost data from the implementation sites. Separate project reports are available, detailing the findings from each site and any assumptions made in the analysis. For the early access projects, case studies were developed describing the resource implications of the interventions and containing economic analyses based on the available implementation data, to indicate the likely economic impact in each case.

Limitations of this evaluation

As discussed in Chapter 2, RM Partners intended to address four core patient outcomes through its activities: performance against the 62-day standard; cancer staging; emergency presentations; and one-year cancer survival. With the exception of performance against the 62-day standard, due to a time lag in the availability of national data, or lack of granularity in the data, limited evidence is available for the remaining three intended outcomes/impacts. There is also little data which compares performance of the interventions with earlier performance prior to the implementation of activities as data collection was not routine. Wherever possible, alternative sources of information have been used, some of which is qualitative, for example speaking to GPs and clinicians during case site interviews to understand their perceptions on changes to patient outcomes. In addition to this, available quantitative metrics provide an indication of progress, for example an uplift in screening rates suggests some cancers are identified earlier than would have otherwise been the case.

Common to many innovative projects, the economic evaluation has also encountered some challenges. In the main, these have been about data availability, due either to slower roll out than anticipated, or merely because the nature of the project means that outcome data will become available after the timeframe for the evaluation. A further challenge from the economic perspective is that costs during the early implementation phase can be overestimated, compared to the longer-term costs, when interventions are more established. This is not only due to the need for project management in the early stages, but also because the efficiencies of the new way of working can take some time to be realised. As a consequence, and in line with good practice, the analyses presented are conservative estimates, which may overestimate the costs and underestimate the benefits which may be achievable when the interventions are embedded in usual practice.

1.3 Background and context

1.3.1 RM Partners Cancer Alliance

The NHS England National Cancer Strategy, *Achieving World-Class Cancer Outcomes*², was published in 2015 by the Independent Cancer Taskforce. The Taskforce looked at how cancer services are currently provided and set out a vision for what cancer patients should expect from the health service. The report included 96 recommendations to help transform the care that the NHS delivers for all those affected by cancer.

² https://www.cancerresearchuk.org/sites/default/files/achieving_world-class_cancer_outcomes_-_a_strategy_for_england_2015-2020.pdf

19 Cancer Alliances were established across the country to lead implementation of the strategy locally by bringing together clinical leaders and teams to transform treatment and diagnosis in the area in which they are based. The aim was for Alliance partners to take a whole population, whole pathway approach to improving outcomes across their geographical 'footprints'. The intention was for Cancer Alliances to deliver the Taskforce ambitions through:

- Coordinating a new way of collaborative working across their locality, aligned with Sustainability and Transformation Partnerships (STPs) and focusing on whole population and place-based approaches.
- Managing and directing a proportion of additional funding in a small number of priority areas (Cancer Transformation Funding) specifically in earlier diagnosis, the Recovery Package and stratified follow up pathways.
- Aligning with new service models for cancer, for example, radiotherapy provider networks, as they are developed.
- Working with the National Cancer Programme team on particular national initiatives³.

RM Partners is the Cancer Alliance for West London, hosted by The Royal Marsden NHS Foundation Trust. RM Partners' vision is to achieve world class cancer outcomes for the population it serves by working in partnership across the system. Its partners include 10 NHS acute Trusts, 14 Clinical Commissioning Groups (CCGs), two STPs working across North and South West London. Their programme of work is overseen by three governance groups: the RM Partners Executive Group, made up of the 10 Trust chief executives, alongside commissioners, primary care leads, and STPs; the Delivery Group, consisting of acute Trust chief operating officers; and the Clinical Oversight Group, which consists of clinical representatives from each of the partner Trusts and primary care leads. In addition to this, RM Partners was one of three Alliances that made up the National Cancer Vanguard – the others being Greater Manchester Cancer Vanguard Innovation and UCLH Cancer Collaborative – formed to work together as the National Cancer Vanguard to pilot and test new models of care that can be replicated nationally.

RM Partners' work currently focuses on key aspects of the Cancer Taskforce recommendations: improving earlier diagnosis and detection; reducing unwanted variation through the development and implementation of best practice timed pathways; and improving and enhancing experience and quality of life for all those living with and beyond cancer by improving access to stratified follow up and the recovery package.

1.3.2 Early diagnosis of cancer

As part of its ambition to create world class cancer services, early diagnosis of cancer is a priority for the NHS. Early detection of cancer greatly increases the chances for successful treatment; for example, more than 9 in 10 bowel cancer patients will survive the disease for more than 5 years if diagnosed at the earliest stage⁴. Therefore, diagnosing more cancers earlier could be transformative in terms of reducing mortality and improving quality of life. As such, the independent Cancer Taskforce set an ambition that 57% of patients would survive ten years or more by 2020, with 75% surviving one year.

The NHS' priorities for 2016/17 were to oversee a shift to faster and earlier diagnosis by increasing public awareness and understanding of the early signs and symptoms of cancer, encouraging people to come forward to healthcare services if

³ <https://www.england.nhs.uk/wp-content/uploads/2017/02/cancer-alliance-guidance.pdf>

⁴ <http://www.cancerresearchuk.org/about-cancer/cancer-symptoms/why-is-early-diagnosis-important>

they have concerns, and by making sure healthcare services can act swiftly to diagnose them. Progress towards these ambitions include⁵:

- The establishment of nine Rapid Diagnostic and Assessment Centres, designed to speed up cancer diagnosis, presenting many patients with test results the very same day.
- The introduction of the Faecal Immunochemical Test (FIT) for bowel screening, that is easier to use and expected to improve screening coverage (expected to be rolled out in Summer 2019).
- Piloting the Faster Diagnosis Standard with five local health economies, which means that patients referred by their GP on suspicion of cancer will be informed of their diagnosis (including when cancer is ruled out) within 28 days of their referral.
- The launch in February 2017 by Public Health England of the latest Be Clear on Cancer campaign, a new regional pilot focusing on abdominal symptoms such as persistent diarrhoea, bloating or discomfort.
- The launch of Health Education England's Cancer Workforce Plan⁶ in 2017 that outlines planned expansion over the next three years. The plan has a heavy focus on the skills required for earlier and faster diagnosis, including investment in 200 additional clinical endoscopists and 300 reporting radiographers by 2021 to support an increase in the capacity for earlier diagnosis.

Building on these developments, the NHS Long Term Plan⁷ sets out the ambition in early diagnosis to work towards diagnosing 75% of cancers at stages I or II by 2028. It includes a package of measures to extend screening by lowering the age for bowel screening, introducing new forms of cervical cancer screening and rolling out a programme of targeted Lung Health Checks. The plan aims to overhaul diagnostic services by creating Rapid Diagnostic Centres for people with non-specific symptoms. In time, these centres will play a role in the diagnosis of all patients with suspected cancer, including self-referral for people with red-flag symptoms. Faster diagnosis is also a key priority; the Faster Diagnosis Standard will become a nationally mandated standard by April 2020. To support delivery of the Faster Diagnosis Standard, Cancer Alliances will be made coterminous with one or more ICS footprints (which will evolve from STPs). The Long Term Plan also makes reference to Primary Care Networks (by July 2019 neighbouring GP practices will need to enter into a network contract covering 30-50,000 people). How Cancer Alliances and Primary Care Networks work together will be reflected in a service specification yet to be drafted, though GP practices will continue to play a key role in ensuring high and timely uptake of screening and that the latest evidence-based guidance is used to identify people at risk of cancer.

It is against this backdrop that RM Partners' early diagnosis interventions are being implemented.

⁵ <https://www.england.nhs.uk/cancer/early-diagnosis/#faster>

⁶ <https://www.hee.nhs.uk/our-work/cancer-workforce-plan>

⁷ <https://www.longtermplan.nhs.uk/>

1.4 Report content

The rest of the report continues as follows:

- **Chapter 2: The early diagnosis programme** – This section sets out the background and context to the RM Partners Cancer Alliance and its early diagnosis programme, including more information regarding the early diagnosis interventions.
- **Chapter 3: The role of RM Partners** – This chapter explores the role of RM Partners and the impact it has had across the system, drawing on qualitative perspectives of the organisation.
- **Chapter 4-7: Pathway redesign projects** – These chapters examine the pathway redesign projects, starting with an overview of key findings from delivering these kinds of interventions before looking at RAPID, Colorectal Redesign, and Optimal Lung in turn, including the implementation lessons, outcomes and impact of the pilots.
- **Chapter 8-16: Early access projects** – These chapters discuss each of the early access interventions, looking at the outcomes and impacts secured and implementation lessons learnt. Chapter 8 provides a summary overview.
- **Chapter 17: Conclusions and implications** – This chapter reflects on the impact RM Partners has had and looks for cross cutting themes from the individual interventions.

2 The early diagnosis programme

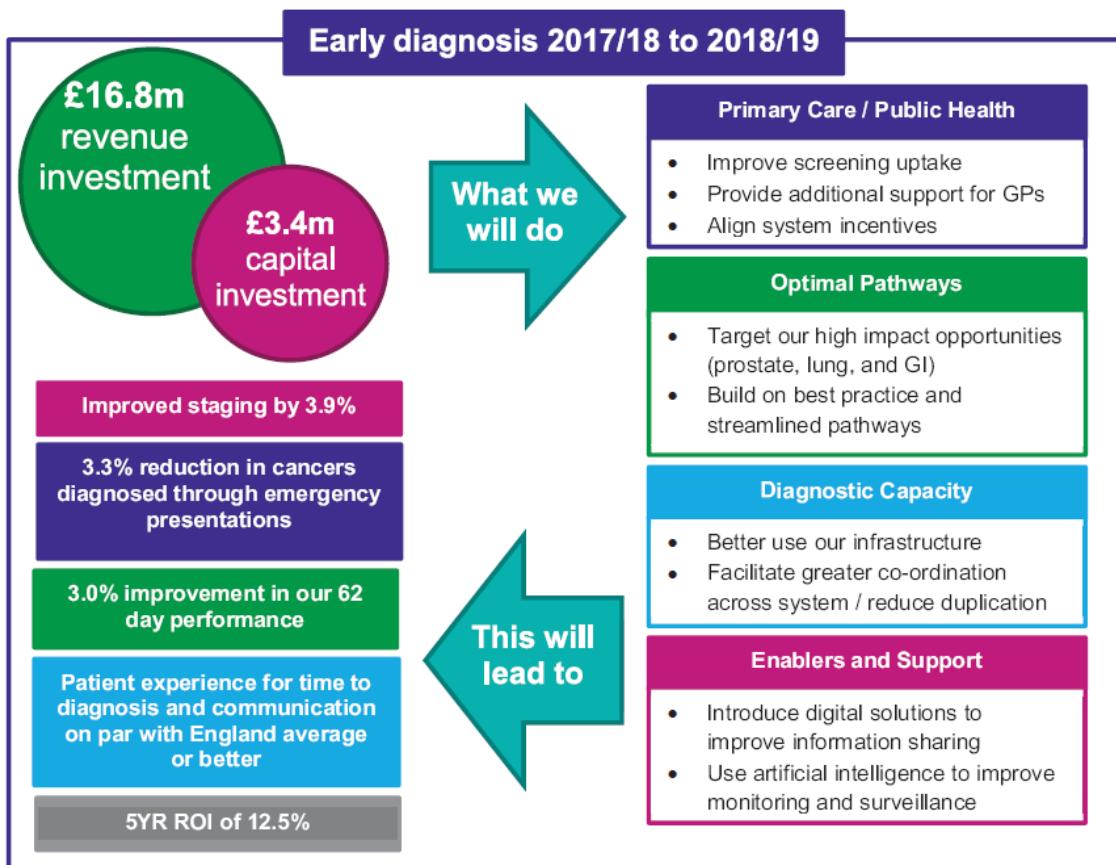
This section provides an overview of the early diagnosis programme, including a summary of the early diagnosis interventions.

2.1 The early diagnosis programme

In December 2016, NHS England announced a Cancer Transformation Fund, to provide additional funding to local areas so that they can deliver on key ambitions identified by the Independent Cancer Taskforce. Alliances were given the opportunity to bid for funding across the following themes: Early Diagnosis, Recovery Package, and Stratified Follow-up Pathways. In May 2017, RM Partners was awarded Transformation Funding for Early Diagnosis, which this evaluation focusses on.

As outlined in the figure below, the early diagnosis programme set out to focus on four key areas: additional support to primary care, as RM Partners believed strongly that investment in primary care was key to improving early diagnosis; a focus on optimising lung, GI and prostate diagnostic pathways – which had been identified through a critical review of RM Partners' data as areas where they could have most impact on diagnosing cancer earlier or faster; improving diagnostic capacity to address the local 9% year-on-year demand forecast for the next five years; and introducing digital solutions to improve information sharing. Through this, RM Partners set out to improve cancer staging by 3.9% to achieve stage I or II diagnosis for 58% with the aim of meeting or exceeding the National Cancer Taskforce ambition of 62% by 2020; see a 3.3% reduction in emergency presentations (from 21.5%) by the end of 2018/19; see a 3% improvement in 62-day performance by 2018/19 to meet the target of 85%; and improve patient experience metrics to meet or exceed the national average for key questions on the National Cancer Patient Experience Survey⁸.

⁸ NCPES questions RM Partners want to see improvements in: Q1: *Before you were told you needed to go to hospital about cancer, how many times did you see your GP...?/Q2: How do you feel about the length of time you had to wait before your first appointment with a hospital doctor?/ Q6: Overall, how did you feel about the length of time you have to wait for your test to be done?*

Figure 2.1: Summary of RM Partners' early diagnosis proposal⁹

RM Partners has chosen to focus its efforts in the areas they believe they can have the most impact – lung, GI, and prostate pathways. Data in RM Partners application for Transformation Funding shows that by improving these pathways they will have the biggest impact on diagnosing cancer earlier and faster. At the time of their bid to NHS England, these priority pathways were more likely to be diagnosed later than other cancers – lung, GI, and prostate accounted for 50% of all cancers diagnosed at stage III or IV. Furthermore lung, GI and prostate cancer accounted for over half (53%) of all emergency presentations (worse than the England average), and over 50% of 62-day breaches were for prostate, lung and GI.

The selection of providers to take forward pilots was based on organisational need, the spread of funding, and readiness of the organisation to take on a project.

2.1.2 The early diagnosis interventions

RM Partners' early diagnosis work was split into two strands: pathway redesign projects which focussed on optimising lung, GI and prostate diagnostic pathways, and early access projects which focused on achieving earlier diagnosis through improving cancer awareness in primary care, including helping to increase participation in screening. These interventions are summarised in the table below – more detail on the evidence behind the interventions is provided in the individual intervention chapters that follow.

⁹ Diagram taken from RM Partners' application to the NHS England Cancer Transformation Fund.

Table 2.1: Early diagnosis interventions

	Intervention	Cancer	Description	Location
Faster diagnosis through pathway redesign	RAPID	Prostate	Streamline prostate cancer diagnostics to allow patients swift access to MRIs before targeted biopsies	Pilot in three locations ahead of roll-out: Imperial, Epsom and St Helier (in partnership with Royal Marsden Hospital) and St George's Hospitals
	Colorectal Redesign	Colorectal	Implement a nurse-led telephone triage and straight-to-test (STT) diagnostics	Pilot and roll-out across all Trusts (excluding the Royal Brompton and Harefield, and the Royal Marsden)
	Optimal Lung	Lung	Implementing the early diagnostic aspects of the Optimal Lung pathway: STT for a CT scan, test bundling, rapid turnaround times for reporting results, use of protocols and flexible scheduling.	Pilot in London North West and St George's Hospitals
Early Diagnosis	Screening	Cervical and Bowel / Marginalised groups (all)	Improve screening coverage: bowel and cervical screening, and screening among marginalised groups	Multiple
	Low Dose CT (Lung) Case Finding	Lung	Targeting 'high risk' patients for a Lung Health Check, and if necessary a CT scan, with the aim of diagnosing lung cancer earlier	Royal Brompton and Harefield
	GP Decision Support Tool	All	A decision support tool to support GPs to identify patients at risk of cancer earlier	Wandsworth, Sutton and Merton CCGs
	GP Education Events	All	Education events across West London, to update GPs on the latest evidence of cancer diagnosis and NICE guidelines	Multiple
	Safety Netting	All	Identify patients at high risk of cancer electronically, and maintaining contact with them	GP Practices across West London
	Dermatoscope	Skin	One-to-one training for 3 GPs on use of dermatoscopes and suspicious lesions	Sutton CCG

£16.8m revenue was invested in the early diagnosis interventions over two years; RM Partners funding was largely on revenue spend rather than capital. Over half (57%) was invested in the pathway redesign projects. The early access projects received 25% of the funding. A fifth (18%) of the funding was allocated to the secondary care networking projects which were not part of this evaluation. This includes the Radiology Reporting Network to develop a solution to pool expertise to create a regional reporting network – this project did not go ahead in 2017/18 due to procurement

challenges, and a digital solution to sharing patient information between primary, secondary, and tertiary care sector which is being evaluated separately¹⁰.

2.1.3 Next steps in early diagnosis

RM Partners has been allocated further Transformation Funding from NHS England for 2019/20. RM Partners' priorities for the next year focus on delivering the national priorities for cancer that focus heavily on faster diagnosis, with the continued roll-out of rapid diagnostic and assessment pathways, an emphasis on primary care education and signposting, as well as increasing diagnostic capacity in endoscopy. RM Partners will also ensure that there is continued emphasis on earlier diagnosis through building on its work to increase screening coverage and roll-out of FIT. There is potential to take this further with a range of innovative proposals which offer tailored interventions to higher-risk populations should additional funding become available.

¹⁰ Two further projects were originally part of this evaluation but discontinued: **Lead Cancer Nurse** – the joint appointment between primary and secondary care of a Lead Cancer Nurse, to strengthen integrated pathways in Croydon. This was discontinued due to resourcing pressures. **Best Practice Prostate Pathway** in Hillingdon Hospital and in Kingston Hospital which aimed to speed up diagnosis of prostate cancer by performing MRIs before a transrectal ultrasound guided (TRUS) biopsy. The pilots were discontinued as the two sites will be rolling out the RAPID pathway later in 2019.

The role of RM Partners

3 The role of RM Partners

Chapter summary

Over the period of Transformation Funding, RM Partners has driven a number of positive changes in the system. By the end of March 2019, it had surpassed its target of improving 62-day performance by 3% (at a time when 62-day performance for England as a whole dropped by 2.5%) and has been consistently the highest performing Cancer Alliance for this metric. The changes in cancer services brought about by the early diagnosis interventions have been well received by patients and achieved a range of improvements in patient outcomes. Stakeholders reported positive and collaborative working relationships across the partnership as a result of RM Partners' work.

A number of factors underpin these achievements.

- The **seniority and competency of the senior team** was noted as a key strength, enabling the Alliance to unite the partnership behind a common goal, and generate faith and trust in its ability to deliver.
- RM Partners' governance meetings have been instrumental in **fostering greater collaboration between Trusts**, bringing senior leaders together regularly to discuss issues and best practice in a way they had not done before.
- Stakeholders and staff at sites commented positively on RM Partners' **sharing of learning across the patch**, with the partnership creating space to share best practice and collectively problem solve.
- Staff within sites piloting interventions were positive about their experiences of the support and guidance offered to them by RM Partners. RM Partners project managers were described as **knowledgeable, supportive, and enthusiastic** in driving improvements at site level.
- RM Partners opted to **prioritise limited funds to areas where it can have most impact**, identifying these priorities through a critical review of its data, and then piloting the new interventions in a few providers to test what works. RM Partners' use of data was highlighted as one of the Alliance's strengths – and one the National Team noted other Alliances should learn from.

A few ways RM Partners can build on its impact, and relationships across the system, were identified through the evaluation discussions. The selection of providers to take forward pilots was based on organisational need, the spread of funding, and readiness of the organisation to take on a project – this has meant partner Trusts have received varying proportions of Transformation Funding though all Trusts have received some investment. This approach was welcomed as an effective way to accelerate progress in a few key areas rather than distributing investment across a wider range of interventions. However, a few stakeholders were not aware of how organisations had been prioritised, or the narrative on supporting some Trusts, and prioritising some pathways, to test and show what works before rolling it out. Some stakeholders would like to see more equity of funding across the network of providers in West London. Greater transparency about why certain priorities or sites are selected might also be beneficial – and RM Partners has begun sharing funding decisions at its Executive Board.

Some stakeholders queried how RM Partners will work with primary care, STPs and ICSs in the future. STPs are already represented in RM Partners' governance structures, and RM Partners is on the STP cancer boards. However,

generating buy-in (for example the Safety Netting project) and gaining sign-off for the primary care projects at STP level (for example Bowel Screening) has been challenging. Stakeholders in commissioning and primary care roles recognised that improvements were needed – though acknowledged that this was not entirely within RM Partners' control. However, as the system goes through transformation with the move towards integration, they would welcome RM Partners' greater involvement in the strategic development of cancer in primary care networks and ICSs as they develop, which is RM Partners' ambition. They also recognised their own responsibility in ensuring there are strong links between RM Partners, primary care and commissioning.

This chapter explores the role of RM Partners; it begins by looking at views of RM Partners' impact across the system as a whole before looking at its impact on the providers and primary care partners implementing the early diagnosis interventions. It concludes with a discussion of implications for RM Partners.

These findings have been drawn from a thematic analysis of 20 interviews with stakeholders, with the most common themes drawn out. Interview data has also been analysed alongside details about RM Partners' governance structures, and attendance by two members of the evaluation team at two of RM Partners' governance meetings in 2018. This chapter also draws on intervention specific interviews with staff at sites.

Stakeholder interviews were carried out with three individuals working in the National Cancer Team in NHS England (external stakeholders), and partner stakeholders: representatives from the South West and North West London Sustainability and Transformation Partnerships (STPs) and Clinical Commissioning Groups (CCGs), and ten interviews with partner Trusts – largely Chief Executives and Chief Operating Officers. Many of these stakeholders sit on governance boards for RM Partners' work. Interviews were also conducted with the Patient Advisory Group (PAG) chairs.

3.1 RM Partners' impact on the system

In order to meet the strategic objectives outlined in Chapter 2, RM Partners has identified ways of operating which focus on fostering collaboration both within and across primary and secondary care, providing strong leadership, sharing learning and being data driven¹¹. Overall, stakeholders reported that the changes brought about by RM Partners had been positive, driven by its success in bringing senior leaders together in a more cohesive and supportive relationship than they had experienced before, having credible and strong leadership, with the use of data mentioned frequently as a key strength. Each of these themes are discussed in turn below.

Fostering collaboration

RM Partners has recognised that collaboration across organisational boundaries is required to achieve more ambitious targets regarding the earlier diagnosis of cancer. It therefore set out to foster collaboration between providers and with primary care to engender a shared accountability for the delivery of cancer services. RM Partners has primarily achieved this by bringing together senior leads from its partner Trusts, with the aim of generating buy-in and engagement in RM Partners' vision.

RM Partners continues to be heavily associated with partnership and collaborative working. In 2018 stakeholders described a 'sea change' in working practices, with the focus being on co-operation and problem solving rather than barriers and blockages to improvement. This continues to be the case, and was a strong theme in seven interviews. RM Partners was described as the 'the glue' to bring people together around a focus on cancer; it was noted by one stakeholder that

¹¹ <http://rmpartners.cancervanguard.nhs.uk/wp-content/uploads/2018/01/RM-A0-Our-vision-aims.pdf>

without RM Partners' influence the pathways would 'drift'; another thought the 'postcode lottery' in the system would get worse without RM Partners. An example of collaboration seen under RM Partners was in relation to the delivery of the new Faecal Immunochemical Test (FIT) and ensuring pathology labs were working with all sites in South West London to process these tests.

"Without RM Partners we wouldn't be linked up, we would start working in silos and fixing things on our own. Risk of not coming up with system solutions and coming up with provider solutions." Partner stakeholder

"[RM Partners' greatest impact] is bringing the Trusts together to have much more of a streamlined approach to cancer has been incredible and has been really really beneficial for the cancer system as a whole. Reason why we're doing so well at the 62-day target." Partner stakeholder

Stakeholders reported that they had seen greater collaboration between Trusts as a result of RM Partners' work. The governance meetings were seen to be instrumental in this, bringing senior leaders together to discuss issues in the system. Stakeholders described Trusts no longer working in isolation, working 'as a block', and the absence of talking in a competitive way about one another. RM Partners was seen to have brought some cohesion to decision making and prioritisation of cancer in the sector, allowing system leaders to share problems and best practice. For example, one stakeholder in a Trust said they had spoken to nearly all the other cancer managers in North West London to get advice or hear about service improvement work, and reported that this would not have happened in the absence of RM Partners.

"I would never really have any need to speak to the St Helier Cancer Team, for example, but now I have a direct link [through the steering group] and I could if I needed to, pick the phone up and ask questions and get some advice." Partner stakeholder

RM Partners' focus has been on piloting something new in a few providers to test what works. This approach was welcomed as an effective way to accelerate progress in a few key areas rather than distributing investment across a wider range of interventions. All ten Trusts in West London have received some RM Partners' Transformation Funding. This ranges between 5% of the total funding¹² (going to three Trusts) to 15% of funding (to one Trust). Five Trusts received over 10% of the funding; these higher amounts has been driven by the pathway redesign and Low Dose Lung work. The selection of providers to take forward pilots has been based on organisational need, the spread of funding, and readiness of the organisation to take on a project. However, it was noted that not all partners were aware of how organisations were prioritised for the interventions, and the narrative on supporting some Trusts, and prioritising some pathways, to test and show what works before rolling it out more widely has sometimes become lost. Five stakeholders (four stakeholders in partner Trusts, and observed by one external stakeholder) thought that RM Partners' partnership working is currently driven by where the pilots are, and therefore the impact of RM Partners is felt by individual Trusts rather than the network as a whole. One stakeholder working in a Trust said that they felt on the periphery of the partnership, and there was some frustration voiced in the interviews about some sites getting more funding for pilots than others. There were suggestions for how this this could be improved:

- **Investing across the network:** It was suggested that the next step for RM Partners would be to invest in one or two priorities across the partnership more even handedly than it has done to date. This is RM Partners' plan as it moves on to the next stage in delivery – with the roll-out of pathway redesign projects in prostate, colorectal and lung, as well as bowel screening and FIT across the patch over the next year.

¹² Total funding to Trusts; this does not include the funding allocated to project management, running costs, roll-out, and system wide changes.

- More communication on the distribution of funding: RM Partners should be as transparent as possible around why certain priorities or sites are being chosen, and how funding has been distributed across partner Trusts to alleviate any concerns about the distribution of funding. RM Partners already provides information regarding the distribution of funding to its partners – which suggests that this information has not been engaged with adequately by all partners. RM Partners has plans to communicate on this more in the next year, while recognising that different needs and priorities will mean that funding will not be completely equal between each provider.

"[RM Partners' message is] we're all together, some of us need to test [an intervention] and if it's worked, we'll roll it out. They do it well, they probably just need a quick reminder to new people, or everyone out there, that this is about working together." Partner stakeholder

"Shift should now be focussing on a few national priorities and roll it out across all partners - be more inclusive - shift in style of operation." External stakeholder

Two stakeholders, and a member of staff interviewed as part of the site level case studies, raised concerns that not all tumour groups were being prioritised by RM Partners. The prostate, colorectal and lung cancer pathways were selected by RM Partners' governance groups through a critical review of RM Partners' data and to align with national priorities – RM Partners will continue to prioritise limited funds to areas where it can have most impact. Stakeholders generally agreed that RM Partners was prioritising the right things. However, these two stakeholders mentioned that the pathway groups that had been overseen by the London Cancer Alliance had been a useful way to engage clinical staff.

"It's dropped lots of tumour groups. A lot of my colleagues in different cancers, e.g. head and neck, gynae, are all quite disappointed by it." Site interview - Colorectal

RM Partners continues to be seen as being secondary care and provider focussed. Its work in primary care has been recognised by stakeholders; and this focus is highly valued. However, three stakeholders working in commissioning/primary care, while acknowledging that RM Partners' governance structures include representatives from primary care and commissioning¹³, questioned whether the primary care voice is sufficiently involved in decisions that affect primary care. These three stakeholders felt that there was a risk that the decisions made by RM Partners would not fit with primary care priorities. This is being addressed by increasing primary care involvement at all levels in RM Partners' work.

"The risks are a decision is made by the Clinical Oversight Group – which is mainly consultants – about a project that will happen in primary care, that doesn't fit with priorities in primary care – and that voice really needs to be heard because there is a lot of change in primary care outside of cancer." Partner stakeholder

These three stakeholders recognised that involving a range of primary care voices in RM Partners' decisions is challenging given the size and diversity of primary care. This challenge has played out in the delivery of RM Partners' primary care

¹³ RM Partners' Clinical Oversight Group (with responsibility for designing new models) is attended by 3-4 GPs and both STPs are represented by their respective cancer clinical leads. For any new project to progress it has to go through the individual governance boards at STP level: in North West London, RM Partners is represented at both the Primary Care Cancer Board (CCB) and the Secondary CCB; in South West London, RM Partners is represented at the Cancer Delivery Group (CDG) and the Strategic Leadership Forum. Specific projects also engage with governance boards at CCGs and GP federations when needed for local agreement, take up and roll out of initiatives.

work, which has taken longer to establish than work targeted within secondary care. This has been due to a less established evidence base around which interventions should be prioritised for investment, and the need to engage with a wider collection of organisations and individual practitioners to garner support for the interventions. For example, the Bowel Screening project was delayed by eight months as RM Partners needed to get sign off both at STP and individual CCG level (i.e via six CCGs).

In 2018, stakeholders also suggested that building closer links with commissioners would also be important to ensure the sustainability of the individual projects. This point was raised in three interviews this year (all internal stakeholders). Again, it was acknowledged that the diversity of this audience makes this challenging. However, these stakeholders thought that RM Partners and commissioners have the joint responsibility to ensure a commissioner perspective can be fed into the design of projects from their inception, and commissioners are made aware of how effective pilots are to assist in their wider roll-out.

Stakeholders working in commissioning and primary care were not recommending a drastic change in RM Partners' governance structures as they noted that involving more people in the meetings would not be practical. Nevertheless, there was recognition from both RM Partners and its partners that the way the governance structures of both RM Partners and primary care work together can be improved, but it was difficult for stakeholders to identify how, particularly as the system is going through transformation. It was thought that there is an opportunity for RM Partners to be part of the strategic development of cancer in primary care networks and Integrated Care Systems (ICSs) as they develop; the NHS Long Term Plan sets out that Cancer Alliances will be made coterminous with one or more ICSs to ensure clear lines of responsibility and RM Partners' focus next year will be to develop closer working relationships with STPs as they develop into ICSs.

"There is a need to start thinking about how cancer in primary care networks and ICSs work in other parts of the county, and how we ensure we are considering that best practice when we are planning on the new programmes for the next couple of years." Partner stakeholder

There was also recognition that RM Partners, commissioners and primary care leaders have a responsibility to optimise this relationship in future – and commissioners also have a responsibility to proactively engage with RM Partners' work. However, views on how RM Partners can continue to establish good links with commissioners specifically focussed on engagement at three levels:

- **Early in the project cycle:** The STPs are key members of the COG where clinical priorities are set and of the EG where new projects are ratified. In addition, RM Partners is represented in North West London at both the Primary Care Cancer Board (CCB) and the Secondary CCB; and in South West London, at the Cancer Delivery Group (CDG) and the Strategic Leadership Forum. Specific projects also engage with governance boards at CCGs and GP federations when needed for local agreement, take up and roll out of initiatives. Nevertheless, stakeholders emphasised the importance of involving commissioners as soon as possible in the project cycle – for example when projects are being prioritised – so commissioners can think about how the work ties back to commissioning strategy. RM Partners should continue to provide opportunities for commissioners to engage early with project proposals.
- **Ongoing updates throughout project delivery:** commissioners would value being provided with updates and monitoring as projects are being delivered so they can think about the detail of delivering and embedding the service (an example provided by one stakeholder was how much to pay for a telephone triage for the Colorectal Redesign pathway). It was reported that RM Partners should do this as early as possible, as well as encourage Trusts

to continue to do this throughout the delivery of the pilots. RM Partners may want to consider engaging with commissioners to understand what information they require on the projects, and in what format this can be best provided to commissioners on an ongoing basis.

- **Final evidence on the success of a pilot:** commissioners emphasised the importance of seeing evidence from pilots of cost savings as well as the clinical benefit, so that they can make an informed decision on further funding. It is RM Partners' intention to demonstrate the economic case of its pilots, including how pilots have impacted emergency admissions, and the wider health economy, and it was acknowledged in the interviews that the pilots are only just coming to a close, so these stakeholders were not expecting to have seen anything comprehensive yet. However, these stakeholders emphasised the importance of ensuring projects are sustained while a business case is being compiled to ensure sufficient evidence can be gathered.

"I think they need to include commissioning sooner. The weak bit is how do they tie back the work that they're doing, so it triangulates with commissioning strategies locally." Partner stakeholder

"What we need to have is completing the loop: say we've made changes in the pathway, this is what is happening for patients, and then pass that on to commissioners so they are aware of the change in the pathway and whether that is a reduced cost." Partner stakeholder

Providing strong leadership

In order to set a common vision for cancer services in West London (and ensure providers are working together to achieve that), RM Partners wants to provide strong leadership for the system. Eight of the seventeen stakeholders interviewed spontaneously commented on the strong leadership shown by RM Partners as being central to its efficacy.

The seniority and competency of the team was noted as a key strength – with the Managing Director's success in getting buy-in from partner Trusts, the senior team's links with NHS England, and senior clinical input, being seen as particular assets. It was noted that RM Partners benefits from a tight governance structure and dedicated senior resource that other Alliances don't have, with close links to the National Team in NHS England providing RM Partners with the mechanism to influence nationally.

"Management structure is a very good one... Other alliances can be slightly looser and don't have someone as senior in the leadership position." External stakeholder

Stakeholders also commented on the positive team culture they had observed from RM Partners. All stakeholders were regularly in contact with RM Partners and reported positive working relationships with them. RM Partners was described as approachable, visible and open. This had helped to foster frank and honest relationships between the partners, in turn leading to faith and trust in RM Partners' ability to deliver. Staff at sites also valued the expertise that RM Partners project leads brought to the individual projects.

"They are very open, very easy to talk to and that just gives you...quite a reassurance that the direction and support from RM Partners is really valid, really meant. You can tell that that engagement means something." Partner stakeholder

All but one of the stakeholders interviewed sit on RM Partners' governance boards. The good level of attendance at the meetings was in itself seen as a demonstration of how RM Partners is effectively leading the system by bringing people together, as well as how useful the meetings are. It was also reported that these are well attended by individuals outside

the secondary care sector as well (e.g. GPs, STPs). The meetings themselves were described as informative, and a good vehicle to have open and frank conversations with senior leaders in the system.

"They've been very helpful in ensuring that everybody's able to get their pressing needs out there, and considered. I never would feel that I would raise something that wasn't taken seriously or listened to."
Partner stakeholder

While there was strong support for RM Partners' leadership, as discussed in the 2018 report, a small number of individuals (three stakeholders) pointed to it being heavily associated with the Royal Marsden Hospital because of its name, Medical Director, Chair, and hosting arrangements. There is little evidence collected which suggests these perspectives have negatively impacted on the successful implementation of the early diagnosis interventions, or on RM Partners' leadership in the system. Funding distribution – which is shared with partners – shows that all partners have benefitted from the Transformation Funding, and that the Royal Marsden is among the Trusts that has received the lowest proportion of investment. Furthermore, nine of the ten Trusts (and one of the two STPs) have recently signed a Memorandum of Understanding (MOU) that provides a framework for the collaboration between the Royal Marsden, RM Partners and its members in the delivery of RM Partners' vision for cancer – including agreeing to RM Partners and its member organisations holding individual organisations to account, and agreeing to clinicians to work across organisational boundaries. The remaining two partners are expected to sign the MOU shortly. It was noted that this process has gone smoothly indicating that there were few reservations to working under the Royal Marsden name. Furthermore, two of these stakeholders noted that being hosted by a cancer centre such as the Marsden is crucial to the success of RM Partners. However, RM Partners should remain alert to the issue and continue to evidence how the partnership is benefitting all partners, as well as ensuring transparent and well-advertised recruitment for senior positions.

Sharing learning

In order to foster continual improvements to working practices, and eliminate duplication of effort, RM Partners is focused on sharing learning between providers and more widely across the system including with other Alliances.

Stakeholders and staff at sites commented positively on RM Partners' sharing of learning across the patch. Trusts reported that the partnership had provided the space to share best practice, they valued the opportunity to problem solve together, and identify who within the partnership they can learn from. RM Partners was credited with this, and the governance meetings were key in providing the opportunity for Trusts to work together.

"Having all of the Trusts, in the same room on a regular basis, just by osmosis, develops good relationships and working relationships and you can look at resources a bit better and how you might improve things a bit better across the patch." Partner stakeholder

"The benefit is their helicopter overview, their ability to access core things and say, 'actually, you're struggling there, they're not struggling there, why don't you learn from them?'" Partner stakeholder

A key contribution RM Partners has made to Trusts is the knowledge it has shared from other Trusts, other cancer pathways and cancer areas outside the area. Staff have valued meetings where different sites delivering the same pathway can share experiences and learning (such as how best to plan MRI capacity). Staff at Epsom, for example, said that they had visited Imperial and St George's to learn how RAPID is being delivered differently. Sites have also benefitted from the sharing of documents and protocols between sites implementing the same intervention, for example, patient information sheets and eligibility criteria for RAPID, standardising processes. To date, RM Partners has encouraged a culture of sharing experience on aspects of embedding the RAPID pathway that have been successful as well as the obstacles faced during

the implementation phase. RM Partners will continue to share learning gained through the RAPID pilot projects with NHS Trusts across the Alliance and beyond.

"[RM Partners] gets the relevant people together and involved. It's helpful to share best practice." Site interview – Colorectal

"I've been to all the sites to observe them in action to see what we could bring back to Epsom. Great in terms of networking – had RM Partners not been involved not sure I would have done the networking I would have done; wouldn't have known who to go to." Site interview - RAPID

RM Partners has also played an important role to share learning nationally. Historically this was done through the Community of Practice established by RM Partners' Vanguard colleagues. In last year's interviews RM Partners was seen as leading the effort to share best practice with Cancer Alliances nationwide, hosted by the Cancer Vanguard and NHS England¹⁴. Through these events, RM Partners was seen to go 'above and beyond' in making sure it was sharing learning with other Alliances. Other examples of RM Partners' work to disseminate learning includes sharing learning through futureNHS (formally Kahootz, the NHS' collaboration platform), and attending national events. They have also led the vanguard work to develop a timed pathway for oesophagi-gastric (OG) cancer which was adopted by the National Team as the national pathway.

Four stakeholders were able to discuss RM Partners' work nationally. It is not expected that all of RM Partners' work nationally would be visible to all stakeholders – much of this work has happened informally for example to support NHS England in policy development for rapid diagnostics or targeted Lung Health Checks. Stakeholders working in the national cancer team expressed appreciation for RM Partners' willingness to showcase what they have been doing and share learning. One external stakeholder was able to discuss RM Partners' influence on cancer waiting times guidance, and influence on the national roll-out of the RAPID pathway. It was also noted that RM Partners is well placed to influence national early diagnosis ambitions set out in the NHS Long Term Plan through its screening work.

"I can confidently say, without RM Partners you wouldn't have rapid roll out of [the RAPID pathway]. We may now see this rolled out nationally. [The Managing Director] is able to articulate things that have been done and scaled to our alliance level, that have then gone to a national level." External stakeholder

"They are very much a trailblazer for many of the reforms to cancer services we're pursuing nationally. Very much in the forefront of trying new stuff and driving that forward." External stakeholder

For stakeholders who were less privy to RM Partners' work to influence national cancer strategy, RM Partners was recognised as an ambitious organisation that is focussed on influencing national policy. It was also noted that RM Partners' success in accessing national funding was testament to its influence at a national level.

¹⁴ <https://cancervanguard.nhs.uk/alliances-working-together-to-develop-best-practice-pathways/>

"Being able to get hold of significant amounts of money is amazing. And focussed on being the best and excelling. The focus isn't on business as usual, the focus is on a constant strive to improve, and influence nationally." Partner stakeholder

Being data driven

RM Partners has emphasised the importance of its work being driven by data – both in terms of improvement planning but also the benchmarking of performance. RM Partners has dedicated staff in their programme team to deliver this; a Head of Informatics and three informatics analysts.

RM Partners was seen as hugely influential in terms of its access to and use of data – this was commented on by eight stakeholders. Partner Trusts commented that RM Partners had been able to provide data that they would not have been able to access elsewhere. These stakeholders valued the ability to go to RM Partners to get support in accessing and understanding data. Some of the stakeholders interviewed also mentioned the scorecard produced by RM Partners as being an effective way to regularly monitor how they were performing against cancer targets, meaning they are alerted to changes in performance and are prompted to understand reasons behind this.

"I think the data that they've been able to produce for us all is brilliant. That's a data set we wouldn't have pulled together in that format, we wouldn't have access to." Partner stakeholder

"They've got really good information. They share that information and they also identify triggers and they're an early contact if they notice something going a bit skew." Partner stakeholder

Stakeholders working in the National Team also observed RM Partners' strengths in effectively using data to identify priorities for the system, and in operational performance management. This was a key learning that the National Team has shared with other alliances.

"RM Partners absolutely got from an early stage that its role was to have a data driven view of performance across its patch." External stakeholder

3.2 RM Partners' impact at the site level

It was reported that a collaborative relationship had been built effectively between RM Partners and the Trusts, evidenced through the supportive approach RM Partners takes towards the partner Trusts. RM Partners was seen as effective in helping Trusts make improvements to cancer performance and work towards delivering best practice. Stakeholders reported that RM Partners brings an understanding of what the issues are and the barriers to change, and are therefore able to work collaboratively with their partners to find solutions.

"When they visit us they are incredibly supportive. When we have a problem, they are one of the most constructive of any visits we've had (from an external organisation) – their approach was really measured, informed, and informative." Trust interview

"I don't feel they hold me to account – they help me improve performance. This is what they were set up to do and they are doing well at this." Trust interview

Staff at sites that were implementing the early diagnosis interventions were very positive about their working relationships with RM Partners, and valued the support and guidance provided to them. In the interviews with staff at sites, the strengths identified included:

- the benefit of having an external neutral perspective from RM Partners when implementing pathway changes: RM Partners was described as 'objective rather than emotional';
- offering networking opportunities with other sites – for example, staff from all RAPID sites had visited each other to learn about the pathway and this was facilitated by RM Partners;
- positive working relationships with project leads, who were described as experienced, responsive and supportive – reflecting the feedback from the stakeholders on the credibility and professionalism of the RM Partners team.

"They are very open and supportive. RM Partners challenges but it's positive challenge – 'have you thought about'. It's a developmental and supportive relationship." Site interview – Cervical Screening

RM Partners has been particularly instrumental during the set-up and continued roll-out of the pathway redesign projects. Staff noted that rolling out these projects would have been a slower process without RM Partners. Crucially RM Partners has been able to offer additional capacity to project manage a number of the interventions. These project managers supported the sites through activities such as analysing activity data, setting up protocols, chasing people for project documentation, and organising meetings. This project management role was hugely welcomed and seen as integral to the success of the project. Staff at the sites delivering RAPID were also hugely supportive of the role RM Partners has played, particularly sharing information and case studies from elsewhere, and conducting very well organised project management meetings. The resource to carry out these important project management tasks was valued as the sites themselves have limited capacity.

"Without [the RM Partners project lead] it wouldn't have happened or it would have taken a long long time...she understands the whole processes clinically not just project management and that makes a difference." Site interview – colorectal

"RM Partners has been hugely helpful and contributed. They have an overview of the other sites...Helped me in terms of my management role, dealing with some of the financial aspects, giving confidence to me on where we can push certain areas." Site interview – RAPID

3.3 Implications for RM Partners

Stakeholders saw RM Partners as a **positive and influential addition to the sector**, and staff within sites felt that RM Partners had met their expectations in terms of the support and guidance offered to deliver the interventions.

As a result of this success, RM Partners has been allocated further Transformation Funding for 2019/20 when other Alliances have not. RM Partners' priorities for the next year focus on delivering the national priorities for cancer set by NHS England that focus heavily on faster diagnosis, with the continued roll-out of rapid diagnostic and assessment pathways, a focus on primary care education and signposting, as well as increasing diagnostic capacity in endoscopy. RM Partners will also ensure that there is continued emphasis on earlier diagnosis through building on its work to increase screening coverage, roll-out of FIT, and a range of innovative proposals which offer tailored interventions to higher-risk populations.

There are a number of areas in which stakeholders hoped RM Partners would focus on in future:

- Diagnostic hubs:** two stakeholders were expecting to see RM Partners shape the decisions around diagnostic capacity and diagnostic centres, focussing on the challenges around 'who, why, where and what' should happen to tackle diagnostic challenges in the sector. As part of the Transformation Funding for 2019/20 RM Partners will be

conducting a feasibility study and developing a Rapid Diagnostic and Assessment Centre for lumps and bumps, sarcoma and head and neck. These discussions have already started but are dependent on decisions being made within NHS England on the requirements of the Alliances with regards to diagnostic centres. RM Partners is working with the National Team to shape and influence these discussions.

- **Working as a network:** as discussed, stakeholders described the benefits of working as a network to ensure there is a consistency in the provision of services across the patch. This is RM Partners' plan with the roll-out of the redesigned pathways (system wide RAPID, colorectal, lung cancer pathway and timed pathway for OG cancer), FIT and screening. However, RM Partners could do more to communicate how its work is benefitting all partners as some stakeholders felt on the periphery of the investment and benefits that had been driven in some parts of the system.

"It's about best performance at the moment rather than equity of provision for all patients across the patch...Driving forward a truly network approaches to things in the future - they do it now, it's not intended as a criticism but that's where there are opportunities." Partner stakeholder

- **Links with primary care and CCGs:** when stakeholders thought about RM Partners' future role, they discussed the question of how it links with STPs and ICSs, and as the system moves towards closer integration between primary and secondary care, stakeholders are expecting to see the role of Alliances shift. Though ICSs are in their infancy, it is RM Partners' ambition to play an important role in cancer strategy for integrated systems. Stakeholders in commissioning and primary care roles said they would welcome greater collaboration with primary care and commissioning. As a diverse sector that is going through significant transformation it was difficult for these stakeholders to identify how closer links between RM Partners' and STPs or ICSs could be fostered. However, there is recognition that both RM Partners, commissioners and primary care leaders have a responsibility to optimise this relationship in future.

"Defining its future purpose is its biggest challenge – people could describe its role now, in part driven by the fact that it facilitates and distributes national funding. Its purpose in future needs defining and its links with the STPs." Partner stakeholder

In the following chapters, each early diagnosis intervention is presented in turn alongside a discussion of the implementation lessons learned, and outcomes/impacts and the economic case.

Early diagnosis interventions:

Pathway Redesign Projects

4 Pathway Redesign Projects: Summary

This chapter provides a high level overview of RM Partners' three pathway redesign projects (RAPID, Colorectal Redesign and Optimal Lung) – looking at the main achievements, lessons learnt for wider roll out, and economic case for the interventions.

4.1 Overview of the pathway redesign projects

As part of its 2017/18 – 2018/19 early diagnosis cancer Transformation Funding, RM Partners has worked with a number of Trusts to pilot and implement three pathway redesign projects, each seeking to secure faster diagnosis through streamlining the early stages of the pathway. A brief summary of each project is provided below.

RAPID pathway for prostate

The RAPID pathway for prostate intends to reduce the time to diagnosis by speeding up the pathway. It has three core aims: to streamline diagnostic tests into a one-stop model (MRI and biopsy on the same day) or two-stop model (biopsy within seven days of the MRI); avoid unnecessary biopsies (and hospital visits) for men who do not need a biopsy by triaging them out after MRI if they are low or no risk; and provide more accurate diagnostics by using fusion technology for biopsy. The pathway is being implemented by Imperial College Healthcare NHS Trust, Epsom and St Helier University Hospitals NHS Trust (in partnership with Royal Marsden Hospital), and St George's University Hospitals NHS Foundation Trust – all of which intend for RAPID to continue in their Trusts. The pathway is also being rolled out by RM Partners to all other trusts providing a urological cancer service in West London.

Colorectal Redesign pathway

The Colorectal Redesign pathway aims to streamline pathway processes to help identify cancers more quickly. Key features of the pathway in comparison to conventional alternatives are: referral of patients using the electronic referral service (e-RS) though this has since become mandatory; a nurse-led telephone triage; straight-to-test (STT) diagnostics; and a redesigned clinical algorithm underpinning patient triage. The redesigned pathway was initiated at St Mark's Hospital in March 2017. It has since been fully implemented at Croydon University Hospital, Kingston Hospital, and London North West University Healthcare and partially implemented across all other providers in west London that offer the service.

National Optimal Lung Cancer Pathway (Optimal Lung)

The National Optimal Lung Cancer Pathway (Optimal Lung) for suspected and confirmed lung cancer was published in August 2017. The pathway specifies tight timeframes for each stage of the pathway to enable the majority of patients to receive a diagnosis by Day 28 of the pathway and start treatment by Day 49 (within the national standards). To achieve this, the pathway recommends a range of processes be in place, including straight-to-test (STT) for a CT scan, test bundling, rapid turnaround times for reporting results, use of protocols and flexible scheduling. Overall, the pathway aims to ensure that the different elements of the pathway happen quickly, that communication with patients is effective and that the teams work in a coordinated and flexible manner – resulting in a service that progresses patients through the pathway as quickly as possible. The Optimal Lung pathway has been piloted by London North West Healthcare NHS Trust and St George's University Hospitals NHS Foundation Trust.

4.2 Impact of the pathway redesign projects

4.2.1 Impact on the 62-day standard

RM Partners set a target of improving 62-day performance by 3% by the end of March 2019 (having received the Transformation Funding in Q1 2017/18). This was predominantly to be achieved through the three pathway redesign projects. Comparing Q3 2018/19 (the most recent data available as of April 2019) with Q3 2016/17 (chosen to provide a more direct comparison by looking at identical quarters, and to be prior to RM Partners' receipt of the Transformation Funding), performance against the 62-day standard has increased by 3.2%, thus meaning RM Partners has been able to meet its target. It is also important to note that, over the same time period, 62-day performance for England as a whole has dropped by 2.5%.

Table 4.1: 62-day Urgent GP referral to 1st treatment performance (Q3 2016/17 vs. Q3 2018/19)

	Q3 2016/17 (before the Transformation Funding)	Q3 2018/19
RM Partners	84.0%	87.2% (+3.2%)
England overall	82.0%	79.5% (-2.5%)

RM Partners has consistently been the highest performing Cancer Alliance for the 62-day standard since August 2018. And for every quarter since Q1 2016/17 (until Q1 2019/2020), RM Partners has exceeded the 62-day performance for England as a whole. This pre-dates RM Partners transition from being part of the national Cancer Vanguard to becoming one of the 19 Cancer Alliances, suggesting that RM Partners has historically been a stronger performer in relation to the 62-day target.

RM Partners' 62-day performance for 2018 has also exceeded that of England overall specifically for the tumour groups where efforts to redesign the pathways have been focused (table 4.2). Comparing 62-day performance for 2017 and 2018, the greatest improvements are seen for urology (where RM Partners has improved 4.0% compared to a decline of 3.9% for England overall) and for lung (with an improvement of 3.7% for RM Partners compared to 2.0% for England overall). RM Partners' 62-day performance for LGI and UGI has not outstripped that for England as a whole with a decline between 2017 and 2018 of 1.0% for LGI (compared to an increase of 0.4% for England overall), and a decline of 0.7% for UGI (compared to a decline of 0.6% for England overall).

Table 4.2: 62-day Urgent GP referral to 1st treatment performance (by tumour group)

	Urology	LGI	UGI	Lung
Q3 2018/19				
RM Partners	89.0%	72.9%	80.5%	77.9%
England overall	73.1%	69.8%	68.4%	73.1%
Alliance ranking	1 st	8 th	1 st	4 th
Jan to Dec 2018				
RM Partners	86.4%	77.6%	76.0%	78.2%
England overall	73.6%	71.4%	71.5%	72.6%
Alliance ranking	1 st	2 nd	5 th	4 th
Jan-Dec 2017 to Jan-Dec 2018				
RM Partners	+4.0%	-1.0%	-0.7%	+3.7%
England overall	-3.9%	+0.4%	-0.6%	+2.0%

4.2.2 Impact of the pathway redesign projects

Table 4.3 provides a summary of the outputs, outcomes and impacts of the pathway redesign projects. Whilst there are a diverse set of outputs, outcomes and impacts secured through each of the three pathway redesign projects, there are two common achievements as discussed below:

- **Faster diagnosis:** The intention of each pathway redesign project is to speed up diagnosis. There are some indications in the data available as of April 2019 that sites have been securing faster diagnosis, though the data are somewhat limited and this cannot be concluded firmly. Qualitatively, staff report improvements in the speed of diagnosis.
- **Positive patient experience:** For each of the three pathways, patients have been positive about their experiences, particularly in reference to the staff they have interacted with, and the speed of the pathway. It is not possible to draw conclusions on how patient experience has changed as a result of the introduction of the pathway changes, though it appears that the pathway modifications have been well received by patients.

Table 4.3: Summary of the outputs, outcomes and impacts of the pathway redesign projects

Project	Outputs	Outcomes/Impact
RAPID	<p>914 patients have been seen on RAPID at Imperial (Aug-17 to Feb-19)</p> <p>940 patients have been seen on RAPID at Epsom (Nov-17 to Feb-19)</p> <p>303 patients have been seen on RAPID at St George's (Mar-18 to Jan-19)</p> <p>All Trusts exceeded the target of 93% 2WW referrals seen within 14 days.</p> <p>Between 51% and 58% of men avoided a biopsy (Nov-17 to Feb-19)</p>	<p>Speeding up the pathway: Staff reported significant improvements in time to diagnosis and treatment. 62-day performance at Epsom has improved over the delivery period (from 81% in Q3 17/18 to 96% in Q4 18/19); St George's performance has also improved over the delivery period (from 79% in Q4 17/18 to 82% in Q4 18/19); Imperial has more varied performance – 62-day performance dropped in Q1 and Q2 for 2018/19. More recently there have been improvements though Imperial was below the target at 80% in Q4 2018/19.</p> <p>Avoiding unnecessary biopsies: Between 51% and 58% of patients avoided an unnecessary biopsy.</p> <p>Finding more significant cancers: Before RAPID was introduced at Epsom (when all patients had a biopsy), 56% of cancers were significant¹⁵. After RAPID was introduced, and only patients with a suspicious MRI received a biopsy, 86% were diagnosed with significant cancer.</p> <p>Reduction in cores taken for biopsy: Targeted biopsies have brought down the number of samples (or 'cores') per procedure compared to transrectal biopsies. Imperial reported that they now take an average of nine cores per procedure, Epsom 12 cores, St George's 13 cores; non-targeted TRUS prostate biopsies protocols dictate samples of 14-16 cores per patients.</p> <p>Reduced risk of infection after biopsy: Staff in the interviews reported that they had seen a dramatic drop in the infection/ sepsis rates as a result of the transperineal biopsies.</p> <p>Positive patient experience: Patients have been very positive (both in the survey and qualitative interviews) about the pathway, particularly about the speed of the pathway, and the staff they encountered.</p>

¹⁵ Data pre-RAPID was for a period between November 2016 and November 2017.

Colorectal Redesign	<p>c.2,800 patients have gone through the pathway at St Mark's (Mar-17 to Dec-18)</p> <p>2,159 patients have gone through the pathway at Croydon (May-18 to Jan-19)</p> <p>297 patients have gone through the pathway at St George's (Jan-18 to Dec-18)</p>	<p>Positive patient experience: Patients have been very positive (in both the survey and qualitative interviews) about the pathway, particularly about the telephone triage replacing a trip to hospital.</p> <p>Reduction in DNAs: The endoscopy DNA rate for Croydon between May-18 and Jan-19 was 0.4%, compared to 20% before the pathway changes were implemented, and St Mark's had zero DNAs in their audit of the first 107 patients. Qualitatively staff also believe there are fewer unsuccessful procedures as a result of improved adherence to bowel preparation medicines.</p> <p>Faster diagnosis: There are some indications that the redesigned pathway reduces the time to diagnosis, and increases performance against the two-week-wait (2WW) target though the data in support of this are limited at present.</p> <p>Improved 62-day performance: By shortening the time to diagnosis, the pathway changes are hoped to increase compliance with the 62-day standard. At present, the data do not support this as an outcome.</p> <p>Fewer unnecessary outpatient appointments (including first and follow-up attendances): The number of patients going through the redesigned pathway provides an indication of the reduction in unnecessary outpatient appointments.</p> <p>Fewer inappropriate tests: This is not possible to evidence quantitatively but in the qualitative interviews, staff were quick to stress how the telephone triage was helping to ensure patients were sent for more appropriate diagnostic tests.</p>
Optimal Lung	<p>Between January 2018 and March 2019, a total of 445 patients have been through the pathway across both sites</p>	<p>As of April 2019, limited quantitative data are available to evidence outcomes and impact, though impacts observed qualitatively are:</p> <p>Shortened time to diagnose cancer: Staff reported improvements in the turnaround time from referral to diagnosis (through implementation of STT pathway).</p> <p>Faster progression to treatment: Staff at sites therefore said they were better able to meet the target of treating within 49 days as a result of the pathway changes, which had a knock-on benefit for their 62-day standard performance.</p> <p>Positive patient experience: particularly around having the pathway navigator as a single point of contact.</p> <p>More efficient use of staff time: Staff also reported the positive impact the pathway has had on efficiencies within the hospital such as freeing up Clinical Nurse Specialist (CNS) and consultant time through greater administrative support and fewer outpatient appointments.</p>

4.3 Implementation lessons

A number of common implementation lessons can be drawn from the three pathway redesign projects, as discussed below.

The following have implications for RM Partners' pathway specification as it is rolled out to further Trusts:

- **Timelines for implementation:** The intended timelines for project implementation were set according to the time period over which Transformation Funding was allocated. However, for some of the redesigned pathways (most notably, Optimal Lung), the timelines for implementation have been too ambitious and sites are not as far progressed as they were intended to be by the end of March 2019. Multiple reasons are evident for these delays, including recruitment challenges, high staff turnover, inadequate office space for staff members to co-locate,

limited diagnostic capacity to support pathway changes, and poor internal engagement. The learning gathered through these pilots should allow more realistic timelines to be set by Trusts looking to adopt the pathway changes wherever possible and identify where they can expect possible delays.

- **Flexibility in roll-out:** Trusts implementing the three pathway redesign projects have all done so with some degree of local customisation. For example, the redesigned algorithm underpinning the colorectal telephone triage has been adapted to reflect the availability of diagnostics, and the sites implementing RAPID triage 2WW referrals differently, and patients receive different forms of first contact. Allowing for this flexibility has been crucial to ensuring the pathway changes can be made and sustained.
- **Pathway timings:** Each of the redesigned pathways has local timeframes for key pathway activity to support delivery of national and local standards, such as the time between MRI and biopsy for RAPID, and the time between chest X-ray and CT scan for Optimal Lung. In some instances, these target timings have been found to be too ambitious for pathways (at least initially), and not always deemed to be of benefit financially or to patients. Whilst some target timings can be expected to be met with continued effort at Trusts, others may need to be revisited to assess the feasibility (and desirability) of achieving them.
- **Data to evidence impact:** The data available for the evaluation of the three pathway redesign projects is, as of April 2019, insufficient to draw firm conclusions regarding some of the intended impacts. This is particularly so for Optimal Lung where delays to the project implementation have meant no quantitative data are available to assess the extent to which intended outcomes and impacts are being achieved. For RAPID, the compilation of data from the Trusts has required repeated cleaning and validation by the project team. This re-emphasises the importance of clear specifications about the data required, delineation of responsibilities for data collection, and potentially greater involvement from RM Partners and/or site data analysts to assist sites with data collection. The patient navigator role is central to ensuring data is collected in a timely way – and RM Partners has emphasised the importance of this role in its service specifications for further roll-out.
- **RM Partners' involvement:** Staff involved in the three pathway redesign projects credited RM Partners with playing a key role in driving the implementation of the pathway changes. A number of those interviewed felt the changes to their pathway would have been made in the absence of RM Partners but not as quickly. Trusts benefitted from the RM Partners' project managers who were credited with keeping up momentum, facilitating internal engagement and resolving emerging issues. Sites have also benefitted from the sharing of learning with other Trusts facilitated by RM Partners. Given RM Partners has helped extensively with the project management which has been instrumental in the set-up of these interventions, without a similar level of resource, it may be difficult to secure the same changes in other sites.
- **Requirement for new posts/skills:** Though each Trust has had different recruitment needs to implement the redesigned pathways, there are a number of posts considered to be essential to the successful running of the pathways. These include the pathway co-ordinators/navigators for RAPID and Optimal Lung. The pathway changes also necessitate the upskilling and training of existing staff and this needs to be accounted for by Trusts looking to adopt similar changes. This includes training for radiologists in reporting on CT colonoscopies (Colorectal Redesign), and in carrying out transperineal ultrasound guided prostate biopsy (RAPID).

The following lessons rely on the Trust implementing the intervention. Though out of the project team's control, RM Partners may wish to influence how Trusts engage colleagues necessary for the roll-out of the intervention:

- **Internal engagement:** The pathway changes cannot be successfully implemented without adequate internal engagement across all departments affected by them. This can depend on strong clinical leadership, management endorsement and oversight, and the personalities of individuals involved. Where internal engagement has worked well and facilitated the roll out of pathway changes, representatives from all divisions have been involved from the project start and have attended monthly steering group meetings, and clear roles and responsibilities have been established early on. As the pathway projects increasingly generate project data to evidence the benefit of the changes, this should assist with securing internal engagement.
- **Engagement with primary care:** For the Colorectal Redesign project and Optimal Lung, the success of the pathway changes has depended, in part, on successful engagement with primary care. This is to ensure the correct referral forms and information are provided, patients are referred onto the appropriate pathways and (in the case of colorectal referrals), patients expect to hear from the hospital by phone to undertake the telephone triage. Engagement has been challenging for some Trusts (particularly so for Optimal Lung where GPs see few patients they suspect of lung cancer) and has led to the need for multiple referral pathways to be run in parallel leading to a number of inefficiencies. It is hoped that through wider use of the C the Signs decision support tool, GPs will automatically be presented with the most recent 2WW referral form, eliminating the potential for use of outdated versions.

The following lessons are wider system issues that – though out of RM Partners control – should be factored into future roll-out:

- **Diagnostic capacity:** The pathway changes rely heavily on capacity for diagnostic equipment and staff – in particular radiology but also pathology. Capacity to meet demand has been a challenge for all three pathways, and in some cases has caused pathway timings to slip. There was concern expressed in the interviews that a lack of capacity may mean that the pathway changes are met with resistance. It was noted that when rolling out these pathway changes more widely it will be important to involve diagnostic specialists in the project set up and steering group. Ring-fenced time for diagnostics negotiated upfront has also been important.
- **Short-term nature of funding model:** The time-bound nature of the Transformation Funding, provided as a pump priming investment, did present some challenges for Trusts with regards to the recruitment and retention of staff needed as part of the revised pathways. For example, some staff crucial to the functioning of the RAPID pathway left their posts close to the end of the financial year as the funding was due to expire. This emphasises the importance of sustainability plans being in place to ensure the continuation of projects beyond the expiration of funding provided by RM Partners. Linked to this, three of the Trusts implementing the Colorectal Redesign pathway decided to raise a business case for Board-approval for the recruitment of permanent positions, believing they would not be able to recruit individuals of a suitable calibre on a 12-month (or less) fixed-term contract. NHS England might want to consider providing funding for a longer period than eighteen months to allow pilots to fully embed. Furthermore, it is important that national funds are released in a timely fashion so that pilot sites can maximise the amount of time they have to implement the necessary changes.

5 RAPID pathway for prostate

Chapter summary

Prostate cancer is diagnosed in over 40,000 men in the UK each year. Most men on the current pathway have both an MRI and a biopsy, regardless of the findings on the MRI. The current standard biopsy technique offered exposes men to the risk of life-changing side effects and post-biopsy infection; and has the potential to miss significant cancer or to find insignificant low-grade cancer which does not benefit from treatment. RAPID aims speed up the diagnosis of prostate cancer by streamlining diagnostics with a one-stop (MRI and biopsy on the same day) or two-stop (MRI and biopsy within seven days) model. It aims to discharge low or no risk patients out of the pathway following an MRI – thereby allowing patients to avoid biopsy. RAPID also aims to secure more accurate diagnostics by using fusion technology for biopsy.

The RAPID pathway is being implemented across three Trusts: Imperial College Healthcare NHS Trust, Epsom and St Helier University Hospitals NHS Trust (in partnership with Royal Marsden Hospital), hereafter Epsom, and St George's University Hospitals NHS Foundation Trust. All three Trusts piloting RAPID reported that it was fully embedded, and 'business as usual'. Between August 2017 and February 2019 over 2,000 patients have been seen on RAPID, and over 93% were seen within 14 days of referral. Between 51% and 58% of men avoided a biopsy, and those who were biopsied were more likely to have significant cancer that requires treatment. Staff reported significant improvements in the time to diagnosis and this is reflected in 62-day performance at each of the Trusts – all of which exceed the England average. Patient experience, gathered through a patient survey and qualitative interviews has been very positive; in particular, the speed of the pathway, and the staff they encountered, were noted as key strengths.

MRI capacity, time for MRI reporting, laboratory resource, pathology, and clinic time have all been carefully planned and negotiated at each of the Trusts to deliver the required pathway changes. There are also a number of skills that are necessary for the successful delivery of RAPID including: skills for accurately reporting on MRIs in order for a decision to be made regarding the biopsy; a high degree of training and skill required to carry out targeted biopsies; proactive pathway co-ordination by a pathway navigator who is closely involved in the patient journey; and close involvement of senior nurses in all steps of the pathway. It was noted that good internal engagement and strong senior leadership have been necessary to oversee the implementation of RAPID.

All three Trusts were optimistic that RAPID would continue to be delivered in their Trust. RAPID is also being rolled out by RM Partners to all other sites in West London.

Prostate cancer is diagnosed in over 40,000 men in the UK each year, and about three to four times as many men are biopsied every year. Most men on the current pathway have both an MRI and a biopsy, regardless of the findings on the MRI. The current standard biopsy technique offered exposes men to the risk of life-changing side effects and post-biopsy infection; and has the potential to miss significant cancer or to find insignificant low-grade cancer which does not benefit from treatment. The PROMIS trial was carried out between 2012-15 in 11 NHS Centres and showed that multi-

parametric MRI imaging pre-biopsy could lead to fewer and more targeted biopsies¹⁶. RAPID builds on this evidence and has three core aims:

- to streamline diagnostic tests into a one-stop model (MRI and biopsy on the same day) or two-stop model (biopsy within seven days of the MRI);
- to avoid unnecessary biopsies for those men who do not need one by triaging them out after MRI if they are low or no risk; and
- provide more accurate diagnostics by carrying out transperineal targeted biopsies using fusion technology rather than transrectal ultrasound-guided (TRUS) biopsies.

The RAPID pathway is being implemented across three Trusts: Imperial College Healthcare NHS Trust, Epsom and St Helier University Hospitals NHS Trust (in partnership with Royal Marsden Hospital), hereafter Epsom, and St George's University Hospitals NHS Foundation Trust. The official launch of RAPID at Imperial was in September 2017, although the project team had been developing and working on it since April 2017 – and the Trust was also part of the PROMIS trial. Epsom implemented a version of the RAPID pathway in November 2017, and St George's started implementation in March 2018.

As part of the evaluation, interviews have been carried out with staff involved in implementing the pathway including: urologists, oncologists, radiologists, pathologists, nurses and administrators. Interviews were carried out with eight members of staff at Imperial, four interviews with staff at Epsom, and four interviews at St George's in March and April 2019. This builds upon 15 interviews completed in March/April 2018 for the first annual report, and five interviews carried out in July 2018 for the first quarterly progress report. The RM Partners project lead was also interviewed in March and October 2018, January and February 2019. Twelve interviews with patients who have been through the RAPID pathway were also conducted between March 2018 and March 2019.

5.1 Implementation of RAPID

All Trusts reported that RAPID was fully embedded, and 'business as usual' including in funding terms. As of February 2019, over 2,000 patients have been through the RAPID pathway. All RAPID patients are having an MRI before biopsy, and Trusts are all carrying out transperineal targeted biopsies.

"Think we could conclude we've implemented it...All different steps are in place. It's embedded as a substantive pathway. Business as usual." Site interview – CNS

The aim is for patients on RAPID to complete the diagnostic pathway by day 14, with MRIs carried out on day 2-7 and biopsies carried out within seven days (amended from same day in the original PID). To achieve this a number of steps are carried out¹⁷:

- **Clinical triage:** 2WW referrals are triaged by a clinician to assess a patient's suitability for MRI. This should be consultant supervised and delivered by an appropriately trained clinician (e.g. Clinical Nurse Specialist, CNS).

¹⁶ <https://www.ctu.mrc.ac.uk/studies/all-studies/p/promis/>

¹⁷ See <https://www.england.nhs.uk/wp-content/uploads/2018/04/implementing-timed-prostate-cancer-diagnostic-pathway.pdf> for more details

- **Straight to MRI:** appropriate patients will then go straight to multi-parametric MRI (or contrast MRI) on their first hospital visit, followed by a rapid clinical review to determine if further investigation with biopsy is required. The aim is for patients to be informed on the day of their MRI (in an outpatient clinic) on whether they can be discharged or need to have a biopsy; this relies heavily on the availability of radiologists to turn around MRI reporting rapidly and the accuracy of these reports.
- **Targeted biopsy:** for patients who require a biopsy, in some cases they will have this on the same day as their MRI, though in the majority of cases this will be carried out a few days later. The RAPID pathway makes use of transperineal targeted biopsies using fusion technology, which can be carried out in clinic and under local anaesthetic rather than theatre. RAPID requires laboratory and pathology staff to rapidly report on the biopsy.
- **Outpatient clinic:** patients will be provided with their biopsy results and notified if they need further investigation (if they have a cancer diagnosis) or removed off the pathway (if risk of cancer is low).

RAPID is set up in a slightly different way in the three Trusts.

- **Imperial:** all 2WW patients are reviewed by a cancer support worker to see if they are eligible for RAPID¹⁸, and a CNS then rings the patient to book them in for an MRI, and talk them through the appointment. On the day of appointment, patients go straight in for an MRI, followed by an appointment with a consultant to make a decision regarding a biopsy. Patients at Imperial will have biopsies under local anaesthetic, and staff are hoping to start doing biopsies in clinics rather than theatres. Imperial is carrying out a 'one stop' seven days a month (every Thursday and alternate Monday) and a 'two stop' twice a week. As shown in the table below, 77% of all patients referred went through the RAPID pathway (914 patients between August 2017 and February 2019).
- **Epsom:** this is the only District General Hospital carrying out the pilot; all 2WW patients are contacted in a Telephone Assessment Clinic (TAC), run by CNSs, and typically complete this within 24-48 hours of referral. Suitable patients are then booked for an MRI. As in Imperial, on the day of the appointment, patients go straight in for an MRI, followed by an appointment with a consultant to make a decision regarding a biopsy; this appointment will take place at the next available clinic appointment which can be up to a week later. Staff at Epsom reported that a few patients have had an MRI and biopsy on the same day. Staff said that biopsies will take place four-six days following the MRI results appointment. 71% of patients at Epsom were seen on RAPID between November 2017 and February 2019 (940 patients).
- **St George's:** A CNS and Urology Consultant review all 2WW referrals coming into St George's using the same eligibility criteria as Imperial, and these patients are then contacted by a patient co-ordinator to book them in for an MRI. Patients first see the CNS and clinical lead to talk through what will happen on the day, and they are seen again after MRI to talk through findings and book them in for a biopsy if necessary. St George's can see up to eight patients on the RAPID pathway a week, and in total 303 patients have been seen on RAPID since March 2018.

Personnel changes to deliver RAPID have largely consisted of re-organising existing resource but also appointing new staff. Imperial appointed a lead surgeon and a Band 5 cancer support worker for RAPID, and appointed three additional clinical fellows to carry out transperineal biopsies; Epsom appointed a new Advanced Nurse Practitioner (ANP) seconded from the Royal Marsden, and a Band 5 patient co-ordinator specifically for RAPID, and trained up CNSs for the TAC; St George's appointed a CNS and a Band 6 patient co-ordinator.

¹⁸ Exclusions include anyone over 80, anyone with a PSA grade over 50, patients with metal work in their body, or those on anti-coagulants.

As the table below shows, the Trusts are meeting the desired pathway for a sizeable proportion of patients:

- **Imperial:** most recent data shows that one fifth (20%) had an MRI within seven days of referral. Of those patients who needed a biopsy, one fifth (20%) had this on the same day across the delivery period, and a further 6% had a biopsy within fourteen days.
- **Epsom:** over half (56%) of all patients referred to Epsom during the delivery period had an MRI within seven days and Epsom has seen improvements in this performance over this time (79% of patients had an MRI within seven days between November 2018 and February 2019). Epsom have been focussing on carrying out biopsies within seven days and 16% of all patients needing a biopsy were seen within this time. This has again improved over the delivery period; a third (33%) of patients had a biopsy within seven days between November 2018 and February 2019.
- **St George's:** over half (56%) of all patients referred had an MRI within seven days. Biopsies were carried out seven days after the MRI for over a third of patients (35%).

Table 5.1: RAPID activity data (overleaf)

	Target		Imperial ¹⁹						Epsom						St George's			
			Aug 17 - Oct 17	Nov 17 - Feb 18	Mar 18 - Jun 18	Jul 18 - Oct 18	Nov 18 - Feb 19	Total	Nov 17 - Feb 18	Mar 18 - Jun 18	Jul 18 - Oct 18	Nov 18 - Feb 19	Total	Mar 18 - Jun 18	Jul 18 - Oct 18	Nov 18 - Jan 19	Total	
Number of 2WW referrals			176	224	309	252	218	1179	253	413	330	322	1318	96	76	151	323	
Number of patients on the new pathway ²⁰	N/A		134	171	264	173	172	914	197	291	227	225	940	90	73	140	303	
Proportion of 2WW referrals on RAPID	N/A		76%	76%	85%	69%	79%	77%	78%	70%	69%	70%	71%	Data only provided for RAPID patients so proportion not possible				
Time from referral to MRI	7 days	Within 7 days	10%	18%	13%	14%	20%	15%	52%	34%	65%	79%	56%	62%	53%	54%	56%	
		8-14 days	51%	51%	50%	51%	58%	52%	36%	45%	25%	15%	31%	33%	37%	41%	38%	
Time from MRI to biopsy ²¹	7 days	On same day	42%	17%	16%	13%	19%	20%	0	1	2%	0	1%	0	0	0	0	
		1-7 days	3%	5%	0%	11%	16%	6%	10%	4%	13%	33%	15%	48%	35%	25%	35%	

¹⁹ RAPID introduced at Imperial in September 2017; in Epsom in November 2017; St George's in March 2018²⁰ Number of patients on the new pathway: data taken from number of patients who had an MRI on their first visit.²¹ Data for patients who went on to have a biopsy.

5.1.2 Implementation lessons

When reflecting on the delivery of RAPID, the individuals interviewed identified a number of lessons that they could draw from their experience:

Pathway timings: All pilot Trusts are delivering RAPID in a slightly different way, with different pathway timings. As RAPID pilots were rolled out, the target of carrying out MRI and biopsy in one day shifted to carrying out a biopsy within seven days. This decision was driven by practicalities and patient safety concerns: the challenge to recruit sufficient staff to carry out and report on these diagnostic tests, the challenge of scheduling MRIs and biopsies on the same day (e.g. all MRIs would have to be completed and reported on by the morning), and same-day biopsies not being appropriate for all patients (e.g. if they need a general anaesthetic). Staff in the interviews also pointed out that it is not always possible or preferable to invest resources into biopsying patients on the same day as it has limited additional benefit on patient outcomes – and patient feedback suggests they are satisfied with a two-stop pathway (see ‘patient experience’ below). When RAPID is rolled out more widely, it is therefore likely that every site will need some flexibility in the target for one-day diagnostics.

“Not everyone will be able to walk in and go through to the biopsy in the afternoon. Clinically, we can’t expect everyone to have one-stop.” Site interview – Urology Consultant

“What we struggled with was everybody going through a same day MRI and biopsy – it’s possible but...when patients are referred every day of the week, and only biopsies on certain day of the week, MDT one day a week, it’s silly to do MRI and biopsy in one day” Site interview – Urology Consultant

Skills for delivering RAPID: There are a number of skills that are necessary to implement RAPID that will be required as the pathway is rolled out to further Trusts:

- *Skills for radiology reporting:* radiologists noted the huge learning curve required to report accurately on MRI, and build confidence on making a decision on not carrying out a biopsy. Trusts were already doing MRI before biopsies so had a body of work to build up their expertise, and noted that it will be important for new sites implementing RAPID to have time to build up this expertise. They queried whether smaller Trusts with a lower through-put of patients may take longer to get to a stage where radiologists are confident in their MRI reporting. It was suggested that radiologists could practice on a bank of MRIs to build up their confidence.
- *Targeted biopsies:* key to the RAPID pathway is having people who can do biopsies using ultrasound – and this takes a high degree of training and skill, for example to keep the patient still during the procedure. Staff in the qualitative interviews pointed out this some individuals will find this challenging so support and time to train needs to be built into implementation.
- *Pathway co-ordination:* RAPID pathway co-ordinators were described as indispensable to the pathway. They have an important role booking every stage of the pathway, and escalating issues with capacity and demand. They are also the first point of contact for the patient in Imperial and St George’s, and vital in communicating key aspects of the appointment to the patient before they arrive for their MRI. This differs from other co-ordinator roles which tend to focus on monitoring pathways and taking action if appointments are booked too far away.
- *CNS input:* nurses are also pivotal in getting patients through the pathway; they are the first point of contact with patients, and involved in making the decision on a patient’s suitability for MRI. It was noted that nurses had an important role to play in vetting referrals to identify which patients would be suitable to go straight to MRI – as well

as meeting patients face-to-face before MRIs to check this decision was the right one. Protected time needs to be built into the pathway for nursing staff to do this.

There were some challenges in getting CNSs involved pre-diagnosis for the TAC at Epsom, which involved a shift in CNS' role from primarily treatment-focussed to getting involved earlier at the diagnosis stage. RM Partners and Epsom's Advanced Nurse Practitioner (ANP) had to work closely with CNSs to build their confidence and buy-in to working in a different way, and clearly articulate the benefit of their involvement early on. There was concern that this might prove to be a barrier in other sites however there is no evidence yet that this cannot be overcome by support and training.

Ring-fenced time and resource: RAPID is a carefully planned pathway that has required the co-operation of a number of departments to deliver it, and it was noted that clearly defined roles and responsibilities at each stage were important to map out. Staff in the interviews described the project as a 'fine balance' and making 'marginal gains' to achieve the required timings. Crucial to the successful delivery of RAPID is the guarantee of dedicated resource, including staff time at specific points in the pathway. MRI capacity, time for MRI reporting, laboratory resource, pathology, and clinic time has all been carefully planned and negotiated at each of the Trusts too. For example:

- RAPID has required radiology staff to assign specific days exclusively to RAPID to meet tight turnaround times for reporting.
- Securing MRI capacity in particular has been critical and a challenge in all Trusts. Staff noted that negotiating dedicated slots to both carry out MRI scans and report on them in a timely way was the priority in delivering the pathway. Imperial reported having 20 slots a week, Epsom have 21 slots a week, St George's has eight slots a week. Some staff queried whether it would be worth moving away from contrast MRIs for all patients as this takes longer – and this will release pressure on radiology staff.
- Laboratory and pathology staff have dedicated days in the week and agreed turnaround times to process biopsies in time for weekly MDT meetings.

Internal engagement: As RAPID requires lots of different departments within the hospital to work together, there has been widespread internal engagement with radiography, pathology, laboratory, nursing and pathway co-ordinators, to agree times for reporting of scans and biopsies, as well as the set-up of a weekly MDT meeting at each site to review patients going through the pathway. Good engagement and communication early on with staff at multiple levels has been instrumental in the successful implementation of RAPID – and ensured ownership of the pathway as the pilot develops.

Staff in the three Trusts valued the efforts made to involve them in pathway changes from the beginning. They talked about getting to know colleagues in different departments, working in partnership and building relationships so that incremental changes to the pathway can be made, and the team can ensure the overall timings can be met.

"Lots of communication and collaboration between lots of individuals and departments within the hospital. Not just one conversation but multiple conversations. Lots of little changes along the way. Listening to what people have to say." Site interview – Urology consultant

Strong leadership: Staff at the three Trusts reported that inspirational and motivational leadership to own a vision of the pathway, and communicate and manage the changes required, was important in driving the project forward. For example, at Imperial it is being led by an internationally renowned expert in prostate cancer diagnosis, imaging and biopsy.

"You need clinical leadership to stand up at the front and give the reasons for doing this, and allow everybody to speak. If that approach is used I can't see why most centres couldn't adopt RAPID in entirety or a hybrid." Site interview – Urology consultant

Openness to change: RAPID requires existing staff to organise their workload in a different way, so buy-in to the changes is crucial. For example, radiologists reporting MRIs within a shorter timeframe than on the conventional pathway, CNSs working with patients before they are diagnosed, urologists accepting change of approach to not biopsying patients. In the three Trusts, staff felt that an ethos of trying new things and transforming practice allowed them to oversee these changes successfully. Again, staff noted the importance of support and leadership being in place to manage these changes.

"There was motivation, people were talking about it. We are doing the same work but with a different kind of mindset. The team is brilliant – I've worked in four hospitals before but here the leadership, comradery, is really unique here." Site interview – Pathologist

"It's about how minded are you for change. Some people are much more able to take on change. Any bit of change is difficult – that process needs conversations and support. That support needs to come from all of us, leadership, managerial support, nursing support." Site interview – Urology consultant

Working centrally: It has been easier to manage RAPID when a smaller volume of patients are selected for the pathway, and it is delivered consistently by a small team – though this will not be possible everywhere. For example, a strength of the pathway at St George's is the small "solid team", with the clinical lead, lead nurse and administrator working very closely together to manage patients through the pathway. Patients are seen by the same clinicians at the start of the pathway right through to the end as they receive treatment. In contrast, a higher volume of patients are seen at Epsom, and an initial challenge was keeping track of patients as they go through multiple clinics at different sites. Half way through the pilot they introduced a dedicated clinic on a Wednesday afternoon which incorporates flow rate and other tests for the patient. The volume of patients means that not all RAPID patients can be seen at this clinic, so some patients have to revisit for these tests.

Holistic approach: Linked to the above point, wherever possible at the three Trusts, RAPID clinics incorporate a holistic assessment of the patient (e.g. carrying out flow rates and urine-analysis) so that symptoms can be investigated even if a negative diagnosis is found. Staff pointed out that this further streamlines the pathway for patients as all these tests are carried out in one visit.

Data collection: Limited access to quality pathway data has required on-going and repeated cleansing and validation by RM Partners. RM Partners reflected that it will be important to involve data analyst teams and evaluators at Trusts at the point of planning the project to understand what can then be identified accurately and centrally to relieve the burden on the clinical teams, as well as identify a key point of contact for collating and validating the data set prior to sending it from Trusts.

Role of RM Partners: Staff said that RM Partners had played a key role in driving the project – particularly chairing meetings and providing a neutral and objective voice throughout project delivery. Staff have also benefitted from networking with other sites delivering RAPID that they thought would not have happened without RM Partners. For example, staff said that they had visited all other Trusts to learn how RAPID is being delivered differently. The Trusts have benefitted from the sharing of documents and protocols for example, patient information sheets and eligibility criteria for RAPID which has limited duplication of effort in some cases.

5.2 Outcomes and impact

The intended benefit of RAPID is to reduce the time to diagnosis by speeding up the pathway. Men with a low risk of cancer should be informed of this on the day and discharged (through same day MRI reporting), and RAPID should achieve better patient outcomes through fewer patients having an unnecessary biopsy (with the aim of 30% men being discharged following MRI). By carrying out biopsies transperineally rather than transrectally, RAPID should also secure more precise diagnosis, and identify more significant cancers and fewer insignificant cancers. As well as speeding up diagnosis, the pathway should result in a reduction in infection, and complications such as erectile dysfunction. Each of these outcomes are discussed in this section.

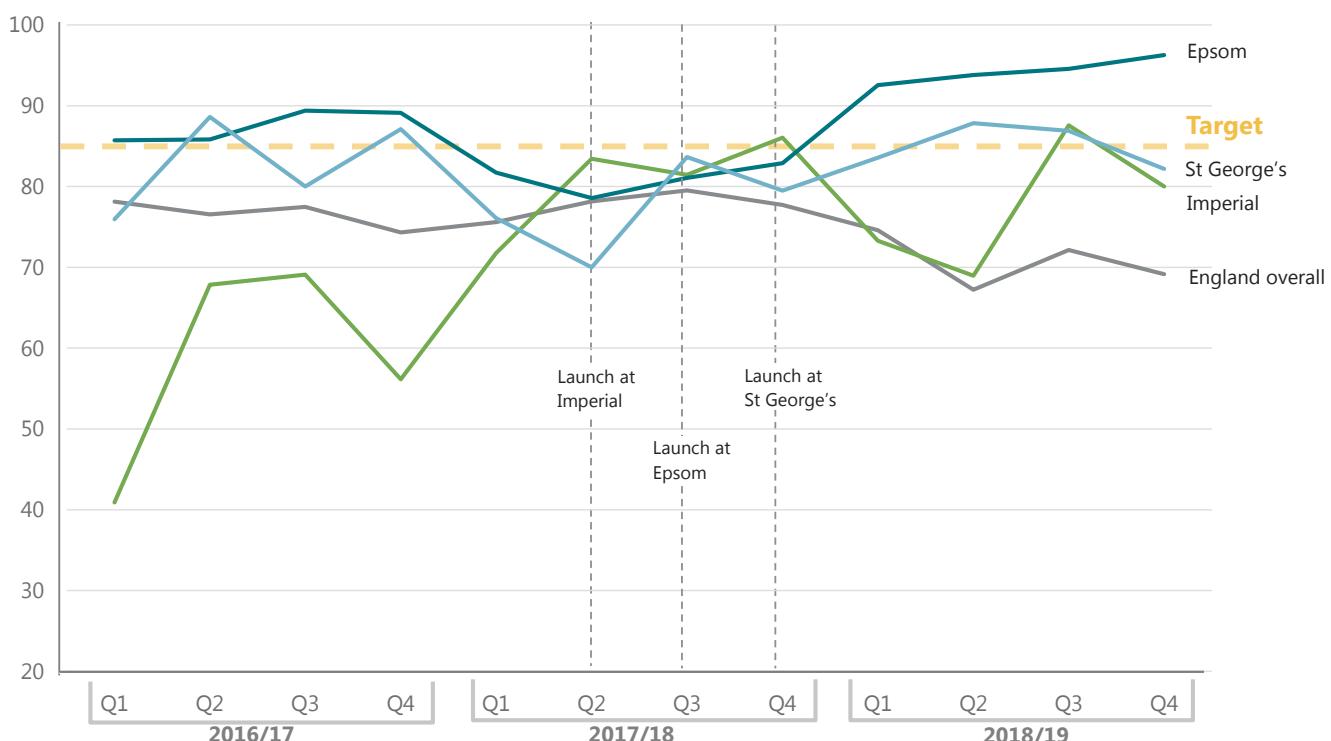
Speeding up the pathway: Staff reported that they were seeing a huge improvement in time to diagnosis and treatment; this is seen as a main benefit of RAPID. The advantages of speeding up the pathway were to reduce the worry time for the patient, reduce the number of visits to hospital, and widen the window in which patients diagnosed with cancer can think about their treatment options – which under the conventional pathway can cause some patients to breach the 62-day target.

"If we get a referral we can bring them in the following day or day after, that compared to old pathway seeing them in clinic within two weeks, and if needed an MRI within four weeks and then reviewed." Site interview – Urology Consultant

"We had a team from Somerset come in last week to see how RAPID works. They said they struggle with thinking time – patients [diagnosed with cancer] do research on the internet and they don't have time to think about their options so they breach." Site interview – CNS

The intention is for 85% of patients to begin treatment within 62 days. Looking at 62-day performance for the three Trusts (for urological tumours), all three Trusts were higher performing than England overall in Q4 2018/19, and Epsom has exceeded the target:

- 62-day performance at Epsom has improved over the delivery period (from 81% in Q3 2017/18 to 96% in Q4 2018/19);
- St George's performance has also improved over the delivery period (from 79% in Q4 2017/18 to 82% in Q4 2018/19);
- Imperial has more varied performance – 62-day performance dropped in Q1 and Q2 for 2018/19. This has been largely due to challenges with biopsy capacity which the site has resolved by bringing in a further three clinical fellows. More recently there have been improvements though Imperial was below the target at 80% in Q4 2018/19.

Figure 5.1: Quarterly 62-day performance (urological excluding testicular)²²

The intention is for the majority (95%) of patients to be told of their diagnosis (positive or negative) by day 28. Trusts have started to collect 28-day data. All three are currently under the target (95%) as they optimise this ahead of the 28-day being mandated as a national target, though qualitatively staff say RAPID has improved the time to diagnosis. All Trusts are exceeding the target of seeing 93% of 2WW referrals within 14 days.

Table 5.2: RAPID waiting times (locally collected data)

Target (by end of pilot)	Proportion of patients that have definitive diagnosis by day 28 (KPI)			2WW		
	95%			93%		
	Baseline ²³	April 2018 ²⁴	April 2019 ²⁵	Baseline	April 2018	April 2019
Imperial	Not recorded		38%	Not recorded	97%	96%
Epsom	23%	75%	91%	Not recorded	97%	98%
St George's	Not recorder	95%	80%	Not recorded	100%	96%

Men with low risk cancer informed of this on the day and discharged: Not all Trusts have introduced same-day MRI reporting for all patients and it is not clear from the data what proportion of patients were discharged on the day of their MRI. However, staff in the case studies reported significantly faster reporting times for MRI, meaning patients were

²² <https://www.england.nhs.uk/statistics/statistical-work-areas/cancer-waiting-times/quarterly-prov-cwt/>

²³ RAPID introduced at Imperial in September 2017; in Epsom in November 2017; St George's in March 2018

²⁴ April 2018 data for Imperial: Sept-17 to Apr-18; Epsom: Nov-17 to Apr-18; St George's: Mar-18 to Apr-18.

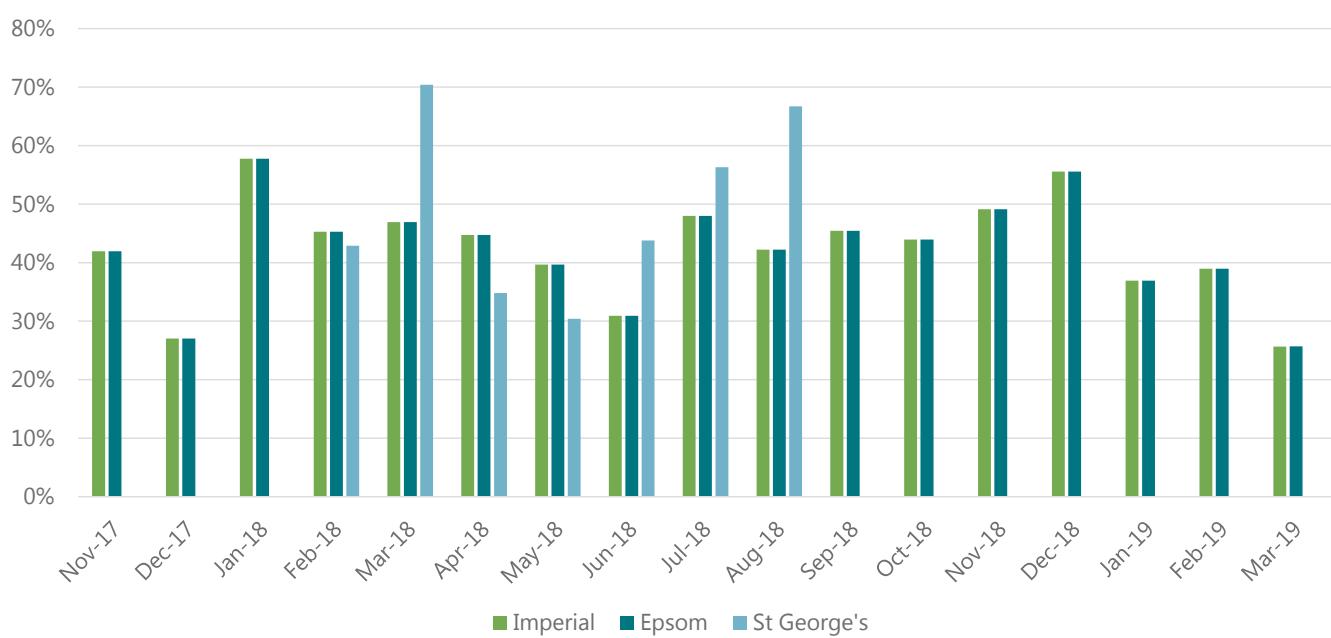
²⁵ April 2019 data for Imperial: May 18 - Feb 19; Epsom: May 18 - Feb 19; St George's May 18 - Jan 19

informed of their diagnosis at an earlier stage in the pathway than they would have been on the conventional pathway. At Imperial, staff estimated that all five patients seen on their full RAPID days each week would get their results on the day.

"Patients are not waiting about for three weeks for an MRI result. They're coming in and finding out what's happening. So there is less worrying for the patient." Site interview – CNS

Avoiding unnecessary biopsies: On average 79% (Imperial), 52% (St George's) and 42% (Epsom) patients avoided biopsy. Staff were consistently positive about this in the qualitative interviews and noted that under the conventional pathway all men would undergo a biopsy.

Figure 5.2: Proportion of men having biopsies under RAPID (locally collected data)



Finding more significant cancers: One of the principle benefits of RAPID discussed in the qualitative interviews was the improved accuracy of diagnosis. The targeted biopsies following MRI triage have meant clinicians are finding more significant cancers, and fewer low risk cancers that do not need treatment. This means that men with a small amount of abnormal cells are not told they have cancer, do not have to undergo further monitoring, and avoid unnecessary treatment. Staff at Epsom carried out a clinical audit in March 2018 to assess the proportion of significant cancers pre- and post-introduction of RAPID. This showed that before RAPID was introduced (when all patients had a biopsy), 56% cancers were significant²⁶. After RAPID was introduced and only patients with an inconclusive MRI received a biopsy, 86% were diagnosed with significant cancer. This has provided the team with reassurance that they are appropriately discharging men without carrying out a biopsy, and using resources more efficiently. This impact has also been felt at Imperial and St George's but there is no data to validate this.

"Monitoring for 10 years causes anxiety and costs time when these patients don't need to be monitored. With RAPID we're avoiding all this. Some choose to have...really harmful treatment that isn't needed [because they're scared]. So huge benefits to resource, the NHS, and clinically from not doing biopsies." Site interview – Urology Consultant

²⁶ Data pre-RAPID was for a period between November 2016 and November 2017.

"Finding very few clinically unimportant cancers – which men might have and never know and never impacts them...so the biopsy yield is delivered towards men with high likelihood of higher risk cancers that definitely need to be found and treated." Site interview – Urology Consultant

Staff at Imperial and Epsom reported that identifying more significant cancers is having downstream impact on resources for treatment. This includes the resource necessary to discuss treatment options with patients, and having oncologists available at the time of diagnosis has helped in expediting this discussion. It is also putting pressure on the resources available for carrying out staging investigations, and treatment itself.

It was noted by RM Partners that RAPID reduces the diagnoses of insignificant prostate cancers which are likely to be early stage cancers. Though clinically this is a good thing it therefore impacts negatively on the national ambition, outlined in the NHS Long Term Plan, to achieve 75% diagnosis at early stage (stage one or two) by 2028²⁷. This is being considered as part of NHS England/NHS Improvement's review of cancer standards.

Reduction in the number of cores taken for each biopsy: Targeted biopsies have also brought the number of samples (or 'cores') down per procedure compared to transrectal biopsies where they would have a larger volume of 'random' samples to investigate. Imperial reported that they now take an average of nine cores per procedure, Epsom 12 cores, St Georges 13 cores; non-targeted TRUS prostate biopsies protocols dictate samples of 14-16 cores per patients. Last year it was reported that pathologist reporting time had been reduced because they had a smaller volume of cores to report on. However, one pathologist reported that an audit that is currently in progress, shows that a higher proportion of cores contain cancer and these take longer to report on than reporting on cores without cancer, increasing pathologists' workload. RM Partners intends to do a retrospective audit of the number of cores taken to understand the wider impact of this.

"You spend time on cancer containing cores: measure distance, give grade, calculate the number of cores. Used to be 4-5 cores of 30, but now 8-9 cores of the 10 will have cancer...So a lot more work there." Site interview – Pathologist

Reduced risk of infection and complications after biopsy: Staff in the interviews reported that they had seen a dramatic drop in the infection/ sepsis rates as a result of the transperineal biopsies. There is no robust data from this evaluation to evidence this, though it was estimated that only one case of sepsis had been documented throughout the whole pilot; the reduced infection rate of this procedure compared to TRUS biopsies has been well documented elsewhere.

It was also reported that RAPID reduced complications such as erectile dysfunction although there is no data to evidence this from the pilots.

5.2.2 Patient experience

All Trusts reported overwhelmingly positive feedback from patients – staff perceived the positive impact RAPID was having on patient experience as a key strength of the pathway. This is reflected in the patient feedback – although there is no data to compare these experiences with experiences of the conventional pathway. The majority (87%) of patients responding to the patient survey described their experience as 'very good' (and a further nine per cent rated their experience as 'good')²⁸. Ten interviews were carried out with patients who had been through the RAPID pathway at the

²⁷ <https://www.gov.uk/government/news/government-announces-plans-for-earlier-diagnosis-for-cancer-patients>

²⁸ 88 patients have completed a survey. Of these, 36 were from St George's, 29 from Imperial, and 23 from Epsom. Of these patients, 25 had a positive diagnosis of cancer.

three Trusts; all patients were satisfied with their experience – in particular the speed of the pathway, and the staff they encountered, were noted as key strengths.

"Overall, I had no concerns. It was exactly what was needed for someone who's worried about having cancer." Patient interview – St George's (Negative diagnosis)

Over half (59%) reported that overall their time to diagnosis was sooner than expected (and a further 28% said it was as soon as necessary). The ten patients in the qualitative interviews each waited no longer than 30 days from referral to diagnosis. Patients were impressed with the speed of the pathway, describing the service as exemplary ('the NHS at its best'), and were surprised that things were moving so swiftly. One patient noted that it was reassuring knowing that he would find out whether something was wrong within one day. Other patients noted that they were only left worrying about what was happening over a two or three-week period.

"I was surprised that it was so quick...once it was on track it was all very quick. The speed of things and only having 7 or 8 visits [stands out]. There wasn't a week without a letter, it was all very punctual." Patient interview – Epsom (Negative diagnosis)

"The speed of the appointment and the one-day diagnosis was very important in reducing 'worry-time' and stress. Thank you." Verbatim from patient survey – St George's (Negative diagnosis)

82% of patients responding to the survey said their first appointment at the hospital following their GP referral was sooner than they had expected (14% said it was in line with expectations, and only 4% said it should have been sooner). Likewise, patients in the qualitative interviews reflected that things moved quickly from their GP referral. They received a phone call and/or letter from the hospital explaining where to go and what to expect at the appointment, and some patients recalled being told to book out the whole day.

"I had a call prior to the appointment. Told to book out the whole day. Thought it sounded great – knew that I would find out what was wrong." Patient interview – St George's (Negative diagnosis)

All ten patients qualitatively described good upfront communication from the hospitals on what was going to happen at the appointment. Patients from St George's felt reassured by the first contact on the day of the appointment with a CNS, who went through information sheets, including a diagram of the prostate, and explanation of what they would be looking for with the MRI. The two patients who attended an appointment at Epsom and St Helier valued the TAC appointment to understand what was likely to happen at the appointment. These two patients were happy that their first contact with the hospital was via a telephone appointment, which was seen as a quick and efficient way of carrying out this assessment.

"They were extremely user friendly, explained exactly what was going to happen. Explained the MRI scan later that morning, and they would see me a 1pm." Patient interview – St George's (Negative diagnosis)

"Overall follow up was excellent. The nurse asked lots of questions and made a decision; she said there and then she would be sending me for an MRI scan. And then I would get a consultant appointment – all done very quickly." Patient interview – Epsom (Negative diagnosis)

Trusts delivering RAPID have not implemented same-day biopsies for all patients, and there is no evidence to suggest that experience would be worsened by receiving a biopsy on a different day. However patient feedback suggests that same-day biopsied would be well received. Same-day biopsies was preferred by 63% of the patients responding to the survey; 20% said they would prefer the tests on a different day and 17% don't mind. 22 patients responding to the survey had a

biopsy on the same day as the MRI, and 18 of the 22 said this is what they would prefer. In the qualitative interviews patients thought same day diagnostics would be preferable as long as expectations had been set up front. Two patients noted that this might offer a more efficient use of resources.

"If expectations set in advance then that would have been fine. If not, it might have been a shock. As long as the journey and timescales are clear. I had the expectation that it wouldn't be the same day so it was ok."

Patient interview – Epsom (Negative diagnosis)

"If they can do it so much the better – if the patient is happy why not? It wasn't urgent but if it would be more cost effective then why not? If they can save the NHS some money" Patient interview – Imperial (Cancer diagnosis)

The majority (98%) said that their diagnosis was communicated sensitively. 95% were clear about what would happen next, and a similar proportion (94%) were clear about the further support available to them. Seven patients in the qualitative interviews had a negative diagnosis; they all reported that they had the opportunity to discuss their symptoms further with the consultant or CNS, and understand what might have caused their higher PSA. Two patients who received a diagnosis of cancer were also happy with the information provided to them at the time of diagnosis. One patient, who had a cancer diagnosis, said that he was provided with too much information at diagnosis and was overwhelmed by the pressure to make a decision about treatment – reflecting the importance of ensuring patients are comfortable and capable of taking on board the information and choices discussed with them.

"They said that as far as they could see it was not cancer...They were very good at explaining everything.

Said that they would communicate with the GP to expect higher PSA, and suggested some medications."

Patient interview – St George's (Negative diagnosis)

"I asked questions around the bladder – and the PSA test. [The consultant] explained that although it shows up if you have cancer it will also rise if you've got enlargement...Explained it very well and made sense."

Patient interview – Epsom (Negative diagnosis)

Patients in the qualitative interviews were also positive about the staff they encountered along the pathway, and this was highlighted as a key strength in the interviews. Staff were described as attentive, informative and patient centred. Likewise, in the patient survey, all but one patient agreed that the staff worked well together throughout the pathway.

"All points of contact were very helpful – it felt very patient oriented. Introduced themselves, said what their role was (e.g. to look after me before going into surgery). Made you feel comfortable." Patient interview – Epsom (Negative diagnosis)

"Outstanding consultant and nurse, excellent care. Very reassuring throughout and excellent communication." Verbatim from patient survey - St George's (Negative diagnosis)

"Considering it was unpleasant, I was treated very well by all the people treating me. It is a working family. Each person works with each other as a well-oiled chain." Verbatim from patient survey - Imperial (Negative diagnosis)

5.3 Next steps for the intervention

RAPID will continue to be rolled out at the three Trusts. Staff delivering RAPID felt the pilots had been hugely successful and there was widespread support for it to continue without any changes. Epsom and St George's have seen changes in their staffing following RM Partners' funding coming to an end. The ANP moved away from Epsom in April 2019, and likewise the pathway co-ordinator and lead CNS left St George's in April 2019. Epsom also rely on Royal Marsden clinicians to sit on their prostate clinic which has been facilitated through the pilot. There was therefore some concern that RAPID will 'unravel' due to these staffing changes, however staff were optimistic that the Trusts would continue to prioritise the RAPID pathway and as of June 2019 there is no evidence that this has happened. RM Partners plans to continue having bi-monthly meetings with the Trusts to help them iron out on-going issues.

"The benefits are so tangible so if they took away the funding for nurse or fellows we wouldn't be able to run it, go back to multiple visits, and we would breach heavily. Can't see a situation where Imperial would pull that funding." Site interview – Urology Consultant

RAPID is also being rolled out to all other Trusts in West London. Implementation begun in Chelsea and Westminster, and London North West in January 2019, and roll-out to other West London Trusts will begin imminently. NHS England has indicated its national ambition for the roll out of a RAPID type model across all alliances in order to achieve the 28-day standard²⁹ and Prostate Cancer UK are advocating this type of diagnostic model nationally³⁰. RAPID was awarded the Health Service Journal Acute Sector Innovation award³¹ – its potential for sharing best practice and national roll-out was key in this nomination.

Staff noted that it will be important to continue to monitor RAPID as it is rolled out to the remaining Trusts in West London, and standardise RAPID across these Trusts. This includes monitoring the quality of MRI reporting and the proportion of biopsies taken at each site to understand whether Trusts are biopsying too many people and why; the proportion of significant cancers being picked up; and also follow up with patients who were discharged following an MRI (and not biopsied) as it will be important to understand what happened to these patients in the long term.

²⁹ <https://www.england.nhs.uk/publication/rapid-cancer-diagnostic-and-assessment-pathways/>

³⁰ <https://prostatecanceruk.org/about-us/projects-and-policies/best-practice-pathway>

³¹ <https://www.hsj.co.uk/hsj-awards/winners-of-2018-hsj-awards-revealed/7023867.article>

6 Colorectal Redesign Pathway

Chapter Summary

Colorectal cancer is a high volume cancer and the speed of diagnosis varies by Trust across West London. The Colorectal Redesign pathway aims to streamline pathway processes to help identify cancers more quickly, primarily through the introduction of the electronic referral service (e-RS, now mandatory), straight-to-test pathway, and nurse-led telephone triage underpinned by a revised clinical algorithm. As of March 2019, the redesigned pathway was fully implemented in St Mark's Hospital, Croydon University Hospital, Kingston Hospital and London North West Healthcare with partial implementation in all other providers in west London that offer the service. Some Trusts have been delayed in their roll out of the revised pathway for a multitude of reasons, though recruitment has led to delays for a number of Trusts (both in terms of fulfilling posts and creating a business case for Board-approval of permanent positions to support the pathway).

The most significant observable impact of the pathway changes has been the reduction of DNAs (the endoscopy DNA rate for Croydon between May-18 and Jan-19 was 0.4%, compared to 20% before the pathway changes were implemented, and St Mark's had zero DNAs in their audit of the first 107 patients). The pathway has also been received very positively by patients with nearly all patients welcoming the telephone triage and the avoidance of an additional trip to hospital as a result. There are some indications that the pathway changes reduce the time to diagnosis, increase performance against the two-week-wait target, and result in fewer inappropriate tests, though the evidence in support of this is limited as of April 2019.

Colorectal cancer is a high volume cancer, and the speed of diagnosis varies by Trust across West London. The Colorectal Redesign pathway was initiated at St Mark's Hospital in March 2017. It has since been implemented at Croydon University Hospital, Kingston Hospital and London North West Healthcare and partially implemented across all other providers in West London that offer the service, with three primary goals:

- To deliver sustainable implementation of a straight-to-test (STT) pathway to achieve faster diagnosis and treatment and thereby improve 62-day compliance;
- To improve patient experience by utilisation of a nurse-led telephone triage service; and
- To create sustainable endoscopy capacity to meet demand for accelerating the roll out for bowel screening programmes³².

For this evaluation report, 12 interviews have been completed with staff at Croydon Health Services NHS Trust, St George's University Hospitals NHS Foundation Trust, Imperial College Healthcare NHS Trust, and Chelsea and Westminster Hospital NHS Foundation Trust (including clinicians, nurse practitioners, diagnostic specialists and managers) in January, March and April 2019. This builds upon interviews conducted with nine members of staff at St Mark's Hospital for the first annual evaluation report. Eight interviews with patients who have been through the redesigned colorectal pathway were also conducted between March 2018 and March 2019.

³² Taken from the Project Initiation Documents for Croydon University Hospital and St George's Hospital

6.1 Implementation of the Colorectal Redesign pathway

The Colorectal Redesign pathway aims to streamline pathway processes to help identify cancers more quickly. Key features of the pathway in comparison to conventional alternatives are:

- Referral of patients by GPs using the **electronic referral service (e-RS)**, providing a single point of entry into the pathway. Since the redesigned pathway's introduction, use of the e-RS has become mandatory.
- A **nurse-led telephone triage – the Telephone Assessment Clinic (TAC)** – which allows patients to be triaged to the most appropriate test or outpatient appointment, without requiring them to attend hospital in person.
- **Straight-to-test (STT) diagnostics** (where clinically appropriate). For many of the Trusts, this does not represent a departure from previous working practices though work has been undertaken to ensure sustainability of the STT arrangements.
- A **redesigned clinical algorithm** used as part of the TAC to assist in the triaging of patients. St Mark's were instrumental in redesigning the clinical algorithm which makes greater use of CT Colonoscopy. Not all Trusts have opted to use the same algorithm reflecting differences in patient populations and the capacity of different diagnostic divisions.
- Introduction of **patient navigators** to assist patient tracking and monitoring of 62 day pathway and 28 day FDS.
- Improved **patient information** distributed at the point of referral to ensure patients are well-informed from the beginning of their pathway and have a dedicated phone number and email address in case they wish to contact a LGI team member directly.

The Trusts across West London are at various stages of implementation of the redesigned pathway, as summarised below:

- **St Mark's Hospital (London North West University Healthcare Trust):** The pilot pathway was initiated at St Mark's Hospital in March 2017 and is now considered to be running in a 'business as usual' state, with RM Partners no longer providing any external funding support. St Mark's receive approximately 30 2-week-wait (2WW) referrals onto the revised pathway each day on average. St Mark's already had an STT pathway in place so were not required to amend this aspect of their pathway, though they needed to recruit patient navigators, vetting nurses and triage nurses to streamline the front-end of the pathway. St Mark's was instrumental in redesigning the clinical algorithm to underpin the TAC.
- **Croydon Health Services NHS Trust:** Croydon University Hospital launched the redesigned pathway at the end of March 2018. Between May 2018 and January 2019, 2,159 patients went through the new pathway and 54.2% of patients were triaged within two working days of receipt. Croydon have amended working practices so patients are triaged on the day of the TAC according to need and known diagnostic capacity rather than as soon as referrals are received (as such, 89% of patients are triaged within four working days of receipt, close to the target of 90%). Croydon have experienced some challenges regarding CT Colonoscopy capacity (as discussed later) and are looking at recruiting an additional radiographer and radiology assistance to help with this. They have recruited three cancer nurse specialists and administrative support in order to implement the redesigned pathway, with these posts funded by their Clinical Commissioning Group (CCG).

- **St George's University Hospitals NHS Foundation Trust:** As of March 2019, St George's was running a small pilot with the constituent components of the redesigned pathway. 297 patients went through the redesigned pathway over the course of 2018, equating to 6-8 patients per week. The limiting factor has been staff capacity to undertake the TAC and challenges in finding suitable candidates for the job. A new Clinical Nurse Specialist (CNS) is now in place and being trained, with the hope that up to 35-40 patients will go through the redesigned pathway each week from September 2019 onwards.
- **Imperial College Healthcare NHS Trust:** The STT pathway is well established within Imperial – over the course of 2018, 1,016 patients were seen through the LGI STT pathway (accounting for 23% of patients referred). Imperial is yet to implement the TAC fully, though undertook a trial of this with 100 patients in 2013 and presently have 32 telephone slots a week available. As of September 2019, Imperial have a patient navigator in post, a Band 7 has been recruited and interviews were being held for the Band 6 post.. The redesigned pathway will be implemented fully once these positions are filled and individuals have received the prerequisite training. As with Croydon, Imperial did not want to recruit staff on a 12-month fixed term contract using funding provided by RM Partners, but rather have made a business case to their Board and CCGs to secure funding for permanent positions. RM Partners has worked with Imperial to lessen diagnostic capacity issues (particularly in endoscopy), and to map the front-end of the pathway to identify where activities can be sped up.
- **Chelsea and Westminster Hospital NHS Foundation Trust:** An integrated STT colorectal pathway is run between Chelsea, Westminster, and West Middlesex. Chelsea make use of the nurse-led TAC whereas triage is still done by consultants at Westminster and West Middlesex. It is thought that approximately 50% of patients at Chelsea are on the STT/TAC pathway. As of March 2019, the job descriptions were being finalised for a number of roles (nursing staff, a patient navigator, radiographers and radiology administration) and were imminently due to go out for advert. Similarly to Croydon and Imperial, the posts will be recruited on a permanent basis, funded by the Trust itself but pump primed by RM Partners.

Table 6.1: Colorectal Redesign pathway activity data

	Number of patients on new pathway	Proportion of patients on new pathway (KPI)	% referrals triaged within 2 working days of receipt
<i>Target (by end of pilot)</i>	N/A	100%	90% ³³
St Mark's (based on audit of first 107 patients)	c.2,800 (Mar-17 to Dec-18)	100%	86%
Croydon (May-18 to Jan-19)	2,159	100%	54.2%
St George's (Jan-18 to Dec-18)	297	13%	100%
Imperial (Jan-Dec 2018)	1016	34%	50%

Other Trusts are in the early stages of implementing the redesigned pathway or have required minimal input from RM Partners to do so:

- **Epsom and St Helier University Hospitals NHS Trust:** Epsom and St Helier are in the preliminary stages of meeting with RM Partners to discuss the redesigned pathway, with their first meeting having taken place in February 2019.

³³ Note, this target is given as a guideline – some nurses triage on the day of referral receipt, others triage at day 3-4 on the day of the telephone clinic.

- **The Hillingdon Hospitals NHS Foundation Trust:** Hillingdon are presently running two referral systems in parallel (one of which being the redesigned pathway) and have been doing so since April 2018. Hillingdon has modified the clinical algorithm to reflect their available CT Colonoscopy capacity. RM Partners has had less involvement with Hillingdon's implementation of the redesigned pathway, given the hospital's funding bid did not request project management support.
- **Kingston Hospital NHS Foundation Trust:** As with Hillingdon, Kingston have not required project management support from RM Partners. They received funding from NHS England as part of the 28-day Faster Diagnosis Standard pilot and, in doing so, rolled out the STT pathway for both LGI and UGI.

6.1.2 Implementation lessons

A number of lessons can be drawn from the implementation of the Colorectal Redesign pathway:

- **Delays in implementation:** A number of the Trusts have been delayed in their roll-out of the redesigned pathway. The time-bound nature of RM Partners' funding has dictated the speed at which changes were meant to be made. In some instances, these timelines have proven too ambitious, with St George's the most notably delayed (given they were due to launch the redesigned pathway in March 2018). Delays have resulted from a multitude of factors including competing priorities within Trusts, staff turnover, recruitment challenges (including time needed for Board-approval of new posts, and a scarcity of suitable applicants), securing adequate radiology resource, sourcing adequate office space for staff to be co-located, and time needed to agree suitable tariffs for the TAC between CCGs and Trusts. Trusts outside of West London looking to implement changes to the colorectal pathway should therefore take heed of the timelines required to do so.

"Don't think it's all going to suddenly change overnight, give yourself realistic timelines. The devil is in the detail, if you don't sort out the right end of things, then nothing will work" Site interview – Colorectal Surgeon

- **Recruitment for fixed term contracts:** Initially RM Partners had envisaged funding posts (such as nursing and administration staff) for a maximum 12-month fixed contract. Four of the Trusts (Croydon, Epsom and St Helier, Imperial, and Chelsea and Westminster) felt it would be challenging to recruit suitably qualified individuals into such short-term positions, and therefore decided to make the business case to their Board and CCG(s) for permanent positions. This is a learning that RM Partners will take forward when considering the additional staff required to implement changes to other pathways (not just for colorectal).
- **Competing recruitment:** It was noted by a small number of individuals interviewed that the recruitment of CNSs (and potentially other roles) could be made more challenging where Trusts in close geographical proximity, or Trusts implementing changes to multiple pathways concurrently, are looking to recruit for very similar job roles. This may be a future consideration for RM Partners as they roll out different pathways across West London, though whilst recruitment may pose delays to roll out, it is unlikely to be success-limiting.
- **Buy-in:** A key enabler in the successful implementation of the redesigned pathway has been the support and buy-in for the new pathway at various levels and across organisational boundaries. Implementation appears to be working most smoothly where there are strong clinical leads who can champion the changes, supported by managerial staff who see the value of such changes. The need for strong engagement extends to commissioners and GPs given the amended referral route into the revised pathway (and the need for referrals to contain accurate information and patients to have bloods taken where necessary). Where this has worked well is where CCGs have GPs with a

personal investment in improving cancer services who are able to raise awareness among primary care colleagues, and the nationally mandated e-RS has assisted in this regard. The tariff negotiation between CCGs and Trusts has proved challenging at times given the competing priorities facing CCGs and their ambition to secure greater savings.

"That's one of the challenges is how many different departments (under different directorates) you have to talk to and get together." Site interview – Lead Nurse

- **Diagnostic capacity and demand management:** Given the increased speed in deciding which diagnostic tests patients require through the TAC, it is not therefore surprising that the pathway changes initially have a knock-on impact on the demand for investigations. Trusts further on in their implementation of the pathway changes have found the uplift in diagnostic demand has stabilised over time, though this emphasises the importance of ensuring diagnostic representatives are part of the core steering group and involved early on in discussions about the pathway changes. RM Partners has worked closely with Trusts on demand and capacity analyses to optimise diagnostic availability, recognising that CT Colonoscopy reporting is more complex and staff can often require training in the discipline.

"I think because of the speed of the pathway, we had a blip with capacity issues – nurses were sending for tests quicker and there was an influx of referrals. I think it has stabilised itself now." Site interview – Advanced Nurse Practitioner

- **The redesigned algorithm and CT Colonoscopy capacity:** The clinical algorithm underpinning the TAC was redesigned by St Mark's, in part, to direct a greater proportion of patients to CT Colonoscopy rather than endoscopy given it is cheaper, patients do not require sedation, it can exclude or identify cancers outside the colon, it is more appropriate for patients unable to tolerate colonoscopy (such as the elderly or those with co-morbidities), and it reduces the demand on endoscopy services. Use of this redesigned clinical algorithm has led to an increased demand for CT Colonoscopy within Croydon (shifting from 7-8 CT colonoscopies per week to approximately 20) and thus significant capacity issues. As a result, Croydon have added a number of late lists in the evening, and are hoping to recruit an additional radiographer and radiology assistant. One of their radiographers is attending a masters in colorectal imaging and reporting and they hope for more training for existing staff members. The Colorectal Pathway Group permitted the algorithm to be modified marginally to fit Trusts' diagnostic capacity. Croydon have not amended the algorithm but instead is working to increase CT Colonoscopy capacity as described above. Individuals interviewed from the other Trusts believed there were no plans to change the current algorithm they use to triage patients.

"That algorithm doesn't fit every Trust as every Trust has different levels of expertise in different areas. At <Trust> we have a huge endoscopy unit, every Trust has to be able to tailor the algorithm to their own Trust." Site interview – Colorectal Surgeon

When thinking about future roll-out of the pathway beyond West London, the potential increase in CT Colonoscopy demand may result in some resistance from diagnostic staff unless modifications to the algorithm are permitted, or radiology are engaged sufficiently early in discussions about the pathway changes to discuss aspects such as the turnaround times of reporting.

- **Patient awareness of the TAC:** As discussed later in the section on patient experience, it appears that more could be done by GPs to ensure patients know to expect a telephone call from their hospital to discuss their symptoms and

next steps. A lack of patient awareness risks them not picking up the call, or being in an inappropriate location to discuss the necessary topics, and thus slowing down the speed at which they progress through the pathway. This issue is being picked up by a number of Trusts with CCG representatives to raise better awareness of the potential issue with GPs.

- **Agreeing tariffs:** Changes to the pathway have a number of implications for the tariffs received by Trusts. In lieu of a national tariff for the TAC, Trusts have had to negotiate this locally with their commissioners (and in some instances have been displeased with the result). Trusts also stand to lose income if the first appointment with a consultant is considered a follow-up appointment given the patient has already spoken with a nurse over the phone. Staff advised engaging commissioners from the very beginning, and keeping them updated with emerging evidence of the pathway's impact. See later summary of the economic analysis for further discussion on the impact of the pathway changes.
- **Perverse incentives:** Some Trusts, since implementing the redesigned pathway, say they have found it more challenging to meet the 14-day and 31-day targets. To meet the 14-day target, patients on a 2WW must have their first appointment completed by day 14. For patients on the Colorectal Redesign pathway, this means they must have both their TAC and investigation completed by day 14, given the TAC does not stop the clock and a face-to-face appointment does. Though some staff described this as a 'perverse incentive' (see below), there were no indications that Trusts would deviate from the planned pathway changes to ensure waiting times were met. Some individuals stressed the importance of GPs booking TACs very close to the date of referral to ensure the 14-day target was not missed as a result of wasted days before the telephone assessment. Others talked about phoning patients earlier than the pre-arranged date/time if it meant the TAC could take place quicker. The potential impact of the pathway changes on the 14-day target may become redundant once the 28-day standard is mandated.

"The downside is that the STT/TAC pathway does not stop the clock as the face-to-face clinic does. Although the whole pathway is significantly shorter, we end up with more breaches and more target failure because of the way the clock is stopped so there is a perverse incentive to use a less efficient route." Site interview – Colorectal Surgeon

One individual interviewed also mentioned the negative impact of the pathway changes on the 31-day standard. The 31-day target specifies that patients must have their first definitive treatment within 31 days of diagnosis. As the STT pathway has enabled faster diagnosis of patients, this starts the clock for the 31-day standard sooner, meaning hospitals do not have the full 62 days before treatment begins. Clearly this is in the patient benefit, though it was an unexpected consequence of the pathway changes which the Trust was less well prepared for and is worth other Trusts giving consideration to as part of their planning processes.

- **Involvement of RM Partners:** A number of those interviewed felt the changes to their pathway would have been made in the absence of RM Partners but they credited RM Partners with speeding up the timeframe over which the changes were made. They strongly emphasised the benefit of having an RM Partners' project manager who was credited with keeping up momentum, facilitating internal engagement, and resolving emerging issues.

"We had the idea, we knew it was going to work but it didn't really get moving until RM Partners got involved." Site interview – Lead Nurse

6.2 Outcomes and impact

The intended benefits of the Colorectal Redesign pathway are: faster diagnosis; an improvement in the 62-day standard compliance; fewer unnecessary outpatient appointments; fewer inappropriate tests; and improved patient experience. Some of these intended benefits are difficult to quantify, though the main impact of the pathway changes which are clearly evident concern patient experience and the unintended benefit of a reduction in DNAs, as discussed below.

Patient experience: By introducing the pathway changes, it was hoped patients would have an improved experience through fewer invasive tests being needed (as a result of the improved triage and the redesigned clinical algorithm) and diagnostic tests being done earlier in the pathway. What has been shown through the RM Partners pilot is the positive impact on patients in a number of different ways. The section later looks at patient experience in greater detail but, in summary, patients are expressing a high level of satisfaction with the pathway, and the vast majority welcome the telephone assessment in place of a face-to-face appointment. They are very positive about their experiences with members of hospital staff and welcome being given a named point of contact whom they can contact with any concerns.

Reduction in DNAs: Though not initially stated as an intended benefit of the pathway changes, both the data collected and qualitative interviews with staff emphasise the positive impact the TAC has had on reducing DNAs. The endoscopy DNA rate for Croydon between May-18 and Jan-19 was 0.4%, compared to 20% before the pathway changes were implemented. In their audit of their first 107 patients, St Mark's had zero DNAs. Staff attribute this to the telephone assessment with nurses which serves to provide reassurance and full details about upcoming diagnostics to patients. It is also thought that the TAC is helping to ensure patients take their bowel medication correctly and, whilst not evident in the data collected, staff talked about seeing fewer unsuccessful procedures as a result.

Whilst Imperial are not yet fully up and running with the redesigned pathway, they have collected data to show a reduction in DNAs on an STT pathway compared to a non-STT pathway (0.8% vs. 7% respectfully between Jan-Dec 2018).

"That has been the most dramatic output from my side – reduced DNAs and reduced cancellations on the day." Site interview – General Manager

"STT patients are much more informed and their bowel is better prepared so radiologists are a lot happier, and patients are more likely to attend." Site interview – Lead Nurse

Faster diagnosis: The proportion of patients with a definitive diagnosis by day 28 was originally included as a KPI though has not been collected by participating Trusts. Collection of the 28-day standard will become mandatory from March 2020 and this will be an important metric to track going forwards to understand the impact of the pathway on reducing the time taken to diagnosis. Imperial have been able to show a reduction in time from outpatient appointment (OPA) to diagnosis for patients on an STT pathway (taking an average of 29.2 days compared to 34.8 days on a non-STT pathway, Jan-Dec 2018), though note their redesigned pathway is still in the process of being implemented.

Performance against the 2WW standard also provides an indication of whether the pathway is being sped up. Croydon has seen a positive impact of the pathway changes on their 2WW performance which has increased significantly from 67.5% to 90.2% for LGI, and increased marginally from 94% to 97.3% for UGI (comparing 3 months retrospective data prior to pathway changes to May-18 to Jan-19). Imperial has also shown the positive impact of the STT pathway on the 2WW target with the average waiting time being 7.1 days compared to 12.2 days on the non-STT pathway (Jan-Dec

2018). However, as discussed earlier, some members of staff interviewed felt the pathway changes had made it more challenging to meet the 14-day standard. Further data is required to assess the impact of the pathway changes in this regard.

62-day performance: By shortening the time to diagnosis, the pathway changes are hoped to increase compliance with the 62-day standard. At present, the data do not support this as an outcome. 62-day performance for Croydon has worsened, going from 93.3% to 73% in LGI (between the three months prior to pathway changes being implemented and May-18 to Jan-19), and from 90.5% to 69.5% for UGI. Though not over the same time period, between 2017 and 2018, the 62-day performance for England as a whole has increased by 0.4% for LGI, and decreased by 0.6% for UGI which suggests Croydon's performance is not reflective of changes being seen at the national level. And whilst LGI performance for London North West (which includes St Mark's Hospital) improved in the timeframes shown (from 71% in Apr-16/Mar-17 to 73.2% in Apr-17/Mar-18), between the same time periods, other Trusts covered by RM Partners saw their LGI 62-day performance increase by 5.3 percentage points. The lower uplift in performance for London North West can be explained by the far greater increase in 2WW referrals over the same time period, with the volume increasing by 59.3%³⁴, whilst for other Trusts this ranged from -1.7% to 32.5%.

Table 6.2: Progress against target outcomes

	3-month rolling 62-day performance (KPI)		3-month rolling 2WW performance		% of DNAs		% total of UGI/LGI cancers detected	
<i>Target (by end of pilot)</i>	85%		93%		<i>Less than conventional pathway</i>		<i>Unknown</i>	
	Baseline	Follow-up	Baseline	Follow-up	Baseline	Follow-up	Baseline	Follow-up
St Mark's ³⁵	71% (LGI LNW)	73.2% (LGI LNW)	Unknown	Unknown	Unknown	0	Unknown	Unknown
Croydon ³⁶	93.3% (LGI) 90.5% (UGI)	73% (LGI) 69.5% (UGI)	67.5% (LGI) 94% (UGI)	90.2% (LGI) 97.3% (UGI)	20%	0.4%	Unknown	4.5%
St George's ³⁷	Unknown	87.9%	Unknown	93.4%	Unknown	11%	Unknown	4%

Fewer unnecessary outpatient appointments: The number of patients going through the redesigned pathway (as discussed earlier in this chapter) provides an indication of the reduction in unnecessary outpatient appointments.

Fewer inappropriate tests: This is not possible to evidence quantitatively, but in the qualitative interviews, staff were quick to stress how the TAC was helping to ensure patients were sent for more appropriate diagnostic tests. Speaking to patients on the telephone has allowed nurses to correct, or build upon, the referral information sent through by the GP and thus make a more informed decision about next steps.

³⁴ For London North West – North West London sites (which excludes Ealing)

³⁵ Data for St Mark's: baseline Apr-16 to Mar-17; follow-up for 62-day performance based on Apr-17 to Mar-18; follow-up for DNAs based on audit of first 107 patients

³⁶ Data for Croydon: baseline based on three months retrospective data prior to the implementation of pathway changes, follow-up based on May-18 to Jan-19

³⁷ Data for St George's: follow-up based on Jan-18 to Dec-18

"The triaging consultants used to have limited info, but the triage nurses now have a true picture of symptoms and make sure they pass patients on for the right test." Site interview – General Manager

Patient experience

RM Partners and Trusts administered a patient survey to understand experiences of the telephone assessment service³⁸. Furthermore, as part of the evaluation, eight interviews were carried out with patients who had been through the redesigned colorectal pathway.

Patients were overwhelmingly positive about their telephone assessment and only a very small minority expressed a preference for the assessment to be done face-to-face rather than by phone. Nearly all patients said the Colorectal Telephone Assessment Service was either 'excellent' or 'good' (96%, with 62% saying it was 'excellent'). Given these scores, it is not surprising that the vast majority of patients (98%) say they would be happy to receive a future appointment in the same way in future, with only two individuals saying they would not be happy with this arrangement. Free text responses give an indication of what is driving such positivity – many of the comments relate to the convenience of being assessed by phone rather than in person, and favourable descriptions of the NHS staff conducting the appointment (such as them being 'friendly', 'knowledgeable', and 'reassuring').

"The person on the other end of the phone was understanding and listened. They were knowledgeable which made me feel confident that my illness was being dealt with in a satisfactory way. They weren't patronising nor did they make me feel uncomfortable." Verbatim from patient survey

"I thought it was brilliant. I was happy with the nurse, she was most professional. She assessed if I should come in and then talked through next steps. I had no unanswered questions after the call." Patient interview – Imperial (Positive diagnosis)

Many patients in the both survey and qualitative interviews talked of their pleasant surprise that they received a call so soon after having seen their GP, which was much faster than their expectations.

"I was telephoned the next day after referral! Wow!" Verbatim from patient survey

"I was pleased and shocked they called so early, I had no worries at all about being called." Patient interview – Imperial (Negative diagnosis)

The vast majority of patients said they found it easier not to attend the hospital but to have the assessment over the phone instead. Many of the comments in relation to this emphasised the convenience of not having to travel into hospital, and the telephone assessment being a more efficient alternative which would save both themselves – and the hospital – time. Only two per cent (which equates to four people) after the telephone assessment said they felt dissatisfied with the assessment and wanted to see someone face-to-face still. Reasons for this included difficulties hearing the nurse over the phone, a preference to see healthcare professionals in person, and a lack of suitability for the elderly.

"A trip to the hospital would have been a waste of time and effort for something that was easily done over the phone." Verbatim from patient survey

³⁸ Note the patient survey data is based on between 182-184 responses, the majority of which were collected at Croydon (77%) and the remainder at Imperial (23%). Trusts have been requested by RM Partners to collect a minimum of 100 survey responses once their service is running fully.

"I would still prefer to see someone face-to-face. I'm not sure that the algorithm used is reliable in terms of assessing symptoms. I'm still going to have to make a trip to the hospital to collect bowel prep. I could have seen someone face-to-face and done this at the same time." Verbatim from patient survey

The patient survey data does however suggest that more could be done to reduce the variation in information provided to patients by GPs regarding the telephone assessment. Just over a quarter of patients (27%) said their GP did not tell them to expect a telephone call from the hospital, and 51% said their GP did not explain to them what the telephone assessment would involve. Not informing patients of the upcoming call runs the risk that patients are unaware of the need to be available at a set date/ time for the telephone assessment, and thus do not answer or find themselves in an inappropriate location in which to have such a telephone call. Some patients had been told to expect a call from the hospital but they believed this was to arrange an appointment to be seen face-to-face. This led to some confusion, and patients not being in a suitable environment in which to discuss personal details relating to their health.

"I understood the telephone call to be to arrange an appointment, I didn't realise it would be an assessment, so I was in my office with another colleague at the time." Verbatim from patient survey

A small minority of patients in the survey and qualitative interviews felt inconvenienced by needing to pick up bowel preparation medication from the hospital (especially since the telephone assessment removed the need to attend hospital prior to their diagnostic investigation). These individuals felt they had received adequate explanation of how to take the medication during the telephone assessment so did not feel it was necessary for the instruction to be given face-to-face, and could not understand why the medication could not be dispensed by their GP or local pharmacy. Indeed, some Trust staff interviewed felt the pathway would be improved further if pharmacists or GPs could dispense the bowel preparation medicines, though it is known there are a number of challenges in doing this.

"I was not very happy about having to make two journeys to hospitals in the next few days before the appointment, one to get a blood test and one to pick up the medication. It all seems a little old school to me." Verbatim from patient survey

6.3 Next steps for the intervention

The Colorectal Redesign pathway is partially or fully implemented in all Trusts in West London that offer the service. RM Partners is continuing to support these Trusts to ensure sustainability.

7 Optimal Lung (National Optimal Lung Cancer Pathway)

Chapter summary

The National Optimal Lung Cancer Pathway (NOLCP), produced by the Lung Clinical Expert Group established by NHS England, was published in August 2017. The pathway provides recommendations to address the whole lung pathway from prevention, early diagnosis, treatment and improving patient experience. Optimal Lung pilots began at London North West (Northwick Park and St Mark's) and St George's Hospital in January 2018. The pathway specifies tight timeframes for each stage of the pathway, to enable the majority of patients to receive a diagnosis by Day 28 of the pathway and start treatment by Day 49 (well within the national standards). To achieve this, the pathway recommends a range of processes be in place, including straight-to-test (STT) for a CT scan, test bundling, rapid turnaround times for reporting results, use of protocols and flexible scheduling. Overall, the pathway aims to ensure that the different elements of the pathway happen quickly, that communication with patients is effective and that the teams work in a coordinated and flexible manner – resulting in a service that progresses patients through the pathway as quickly as possible. Both sites have focused on implementing and delivering the diagnostic aspects of the pathway. St George's and London North West are in the process of implementing these changes and a total of 445 patients have been through the pathway between January 2018 and March 2019.

The priority for RM Partners was to understand the challenges and enablers to rolling out the Optimal Lung pathway. There are a number of lessons that can be drawn from the pilot: delivering the STT timescales of the pathway (to deliver chest X-ray and CT scan within 72 hours) was challenging for the sites mainly due to radiology capacity, and staff thought that this target would more likely be achieved over a longer timeframe than possible within the pilot. Furthermore, staff reported that conflicting targets (to report on X-rays and CT scans within 72 hours vs. the two-week-wait target) had contributed to some confusion about the pathway timings. However, pathway navigators have been integral to ensuring the pathway runs smoothly and speedily. Navigators were able to act as a single point of contact for patients, ensuring patients attend appointments and have tests done on time, as well as chase test results, manage the pathway data and reduce the administrative burden on consultants and Cancer Nurse Specialists (CNSs).

Staff were positive that the changes have meant patients were being diagnosed much earlier than they would have been under the conventional pathway. Data collection for NOLCP is not yet fully finalised, so it is not possible to say how long patients are waiting for a diagnosis. Interviews with patients indicate that there was a high level of satisfaction with the service.

Optimal Lung will continue to be embedded at the two sites, with RM Partners looking to roll out the pathway changes across all sites in the long-term.

The National Optimal Lung Cancer Pathway (NOLCP – hereafter Optimal Lung), produced by the Lung Clinical Expert Group established by NHS England, for suspected and confirmed lung cancer was published in August 2017. It was developed to address the Five Year Forward View aims of improving cancer survival rates and patient outcomes. The

pathway provides recommendations to address the whole lung pathway from prevention, early diagnosis, treatment and improving patient experience. The intended benefits of the revised pathway are:

- Faster turnaround and reporting times, leading to shortened time to diagnosis, enabling patients to progress rapidly to any treatment required.
- Potential avoidance of emergency admission through straight to CT for abnormal chest X-rays and the prompt triage and management of abnormal CTs.
- Improved one-year survival.
- Improved patient experience through having a patient navigator as a single point of contact.
- Increased number of patients treated within the 62-day target.

The Optimal Lung pathway is a national initiative and all Cancer Alliances are expected to support and facilitate implementation in their local areas. The 2018/19 Optimal Lung pathway pilot was implemented across two sites: London North West University Healthcare NHS Trust (including the Northwick Park and St Mark's hospitals) and St George's University Hospitals NHS Foundation Trust. Optimal Lung pilots began at both sites in January 2018. The priority for RM Partners was to understand the challenges and enablers to rolling out the Optimal Lung pathway.

As part of the evaluation, interviews have been carried out with staff involved in implementing the pathway including: respiratory consultants, radiologists, CNSs, pathway navigators, cancer managers and administrators. Interviews were carried out with five members of staff at London North West and seven staff members at St George's in March and April 2019. This builds on 13 interviews carried out with staff in March and April 2018. Six interviews with patients who have been through the Optimal Lung pathway were also conducted between March 2018 and June 2019.

The majority of data collected as part of this evaluation is qualitative, as quantitative data collection and validation was a significant challenge for this pathway (although improvements were observed towards the end of the pilot) – this is explored in more detail below.

7.1 Implementation of Optimal Lung

The Optimal Lung pathway, as recommended by the Lung Clinical Expert Group, specifies the following stages and associated timings:

- **GP referral for urgent chest X-ray (-3 to 0 days):** patients with a suspicion of lung cancer are referred for an urgent chest X-ray by their GP, the results should then undergo 'hot reporting'³⁹ so that the results are available within 24 hours.
- **Straight-to-test (0 to 3 days):** patients with an abnormal chest X-ray are identified by a radiologist and sent STT for a CT scan. The radiologist either arranges this directly (in which case, CT scan may take place on the same day) or puts an ALERT⁴⁰ on the report to flag the abnormality and the need for a CT scan. The referral is then checked by a radiologist to confirm a CT scan is appropriate. Previously, patients referred under an urgent 2-week-wait (2WW) referral would undergo a chest X-ray before being triaged by a clinician and sent (where appropriate) for a CT

³⁹ 'Hot reporting' aims to report results before the patient leaves appointment.

⁴⁰ A specialised code triggering a notification for the cancer team.

scan. They would then be seen by a clinician in an outpatient appointment (OPA). The new pathway is designed to speed this process up by completing both the chest x-ray and CT scan within 72 hours instead of within 14 days.

- **Outpatient appointment (days 1 to 6):** if the CT scan is abnormal, the patient is triaged by a clinician and invited to attend a fast track lung cancer clinic. The results of the CT scan should also be reported to the respiratory consultant to discuss with the patient during the appointment.
- **Further diagnostic tests (days 7 to 14):** further investigations are completed. This stage includes the bundling of tests with simultaneous booking of all likely investigations, such as repeat CT scans, PET-CT and EBUS.
- **Full multidisciplinary team (MDT) discussion of treatment options (by day 21)**
- **Treatment (by day 49)**

The changes implemented at each of the sites include the following:

St George's has concentrated on prioritising Optimal Lung patient referrals to ensure patients are sent STT. They have achieved this by engaging the radiology team to encourage routine flagging of abnormal chest X-rays (where there is a suspicion of Lung cancer) and direct booking of patients for a CT scan. Early indications show that St George's is turning around roughly two-thirds of its chest X-rays in 24 hours (RM Partners' KPI is ultimately for 85% of patients to have their X-ray reported within 24 hours). St George's is also sending more patients through for EBUS and PET-CT tests (i.e. where possible the tests take place on the same day) and has also increased the capacity within the pathology team by recruiting a biomedical scientist to conduct pathology testing in-house on biopsy samples – speeding up reporting times for EBUS.

A new urgent chest X-ray referral form was piloted for a short period of time in St George's for use by GPs, alongside a new patient information leaflet, informing patients of the diagnostic procedures involved in the pathway and giving them a point of contact at the hospital.

London North West has also concentrated on prioritising Optimal Lung referrals to ensure patients are sent STT. Challenges experienced in the earlier stages of the pilot in increasing capacity to respond to referrals has limited the site's ability to meet these referrals within the specified timeframes (see further details below). Despite these challenges, the majority of patients seen between January 2018 and March 2019 had a chest X-ray reported upon within 24 hours (84%) and over half (56%) of the CT scans were reported upon within 72 hours. The lower figures for CT scans being reported within 72 hours (compared to a chest X-ray) suggests turning around CT scan reporting has been more challenging compared to chest X-ray reporting, largely due to capacity to report. In an attempt to improve CT scan reporting times, the site introduced an STT standard operating procedure (SOP) in April 2019 to aid consistency of reporting (the results of the SOP are to be reviewed in due course to identify any improvement). London North West has also focused on bundling EBUS and PET-CT tests which has reduced the length of time taken to complete these diagnostics and progress patients through to treatment.

Both sites have recruited a pathway navigator to act as a single point of contact for patients and ensure that patients are tracked through the pathway, as well as provide administrative support. St George's has also recruited a CNS to assist with clinical activities and support patients with a positive diagnosis of cancer.

Both sites encountered challenges in implementing key deliverables in line with the planned timescales which led to a delay in the time taken for sites to implement the pathway. Sites did not start to introduce the STT element of the pathway until March/April 2018. Between January 2018 and March 2019, a total of 445 patients have been through the pathway.

7.1.1 Implementation lessons

Staff interviewed identified a number of lessons that they could draw from their experience of implementing the Optimal Lung pathway:

Referrals to the pathway: Staff reported that there had been challenges with generating referrals to the pathway. In particular, St George's opted to introduce a new NOLCP chest X-ray referral form in Wandsworth (as opposed to adapting the existing chest X-ray request form being used by GPs across South West London). St George's worked with a GP cancer lead at Wandsworth CCG to promote the new referral form. However, there was poor uptake of the new referral form among Wandsworth GPs. Staff felt that the low uptake of the new referral form stemmed from GPs being confused about having both the option of the conventional referral form (two week-wait referral form) and the NOLCP chest X-ray form and choosing to use the traditional referral route. Sites have also continued to receive and accept patients via other referral routes (such as two-week wait referrals and general radiology referrals, A&E and patient upgrades). This requires careful consideration to establish which patients are being referred with a suspicion of lung cancer, and therefore eligible for the Optimal Lung pathway, and which should be directed through another route (such as patients referred for suspicion of Tuberculosis).

In London North West, the broad range of referral routes into the respiratory department, which both receives referrals and provides services for other respiratory conditions outside of lung cancer, means a range of pathways and protocols are required. This has created some lack of clarity, which is problematic for the project teams and this evaluation, and means additional work for staff to identify and track patients along the pathway. To overcome this, both Trusts developed a radiology-led SOP, which aims to ensure abnormal chest X-rays are sent STT and that both chest X-rays and CT scans are reported within the timelines set out by NOLCP guidelines. St George's did not continue with the new referral form so both sites process patients through conventional referral routes – including an e-form in London North West.

STT pathway timings: It has been challenging for the two sites to meet the radiology scanning and reporting turnaround times required of the pathway and deliver a CT scan report within 72 hours. Staff reflected that radiology departments at both sites faced system wide capacity issues which limited their ability to fully engage with the pathway changes from the beginning of the project. Thus, staff felt that the pathway timings for this element of Optimal Lung may be ambitious and require more incremental changes over a longer timeframe to achieve.

St George's reported that they were able to overcome some challenges to reduce the time taken to report on CT scans to between 5-7 days for most patients on the pathway. They have done this by working with the radiology team to prioritise patients flagged on the Optimal Lung pathway. However, the radiology team is unable to deliver this seven days a week, partly due to too few lung specialist radiologists on call at any given time, which can mean that it takes longer for some patients to have their tests reported. Staff at London North West reported ongoing efforts to fully integrate the reporting timeframes given ongoing pressures on radiology capacity.

This suggests that pathway target timeframes may need to be flexible, particularly earlier on in the implementation and delivery stages of the pathway. This is to allow time for incremental improvements in the pathway processes that will gradually bring the pathway timings to the target timeframes over the longer term.

"Within the space of about a week [patients] have the X-ray and the CT done. [These timings] might not be by the rules of the NOLCP but this is when we can deliver it by. To deliver this to every patient exactly within the [NOLCP] times is incredibly difficult and we just don't have the capacity to do it." Site interview – Consultant

"While we have vastly improved the pathway on what we were doing previously, we still aren't going to be meeting those targets for a significant proportion of patients." Site interview – CNS

Test bundling: Sites have worked with the hospital booking teams to, where possible and appropriate, bundle test appointments together (i.e. PET-CT, EBUS). Previously, appointments for these tests may have been spread out over a few weeks, meaning patients took longer to progress through the pathway. Staff reported that this has reduced the waiting time for patients between tests, increased the speed at which patients' progress through the pathway as well as reduced the number of separate visits patients have to make to the hospital to attend appointments.

"We have modified our processes in clinic, so test bundling is now standard...which I think speeds up the pathway greatly." Site interview – Respiratory Consultant

Conflicting targets: Staff reported conflicts between the waiting time targets set for Optimal Lung and usual practice within hospital departments (i.e. 62-day target, two-week-wait target). The new pathway specifies that the CT scan should be turned around within 72 hours and the patient seen at an outpatient appointment within 1-6 days. Under the conventional 2WW pathway, patients are offered an appointment with a hospital specialist within two weeks of a GP referral. It was noted that access teams that manage 2WW referrals and book clinics etc. were still working towards the target of getting outpatients booked within 14 days (not 6 days). It was also noted that those in the core project team, such as the respiratory consultant, CNS and pathway navigator, were aware and working towards the NOLCP timings, however other departments key to the success of the pathway, such as radiology and pathology, were often still reporting test results to fit with the conventional pathway timings. Staff felt that this sometimes meant tests were not reported with the level of urgency to meet the shorter timescales set by the Optimal Lung pathway.

"The tracker and timelines seem to be exclusive to [the core Optimal Lung team] even though the actual processes are inclusive of everyone. We are the only ones with sight of and working towards these timelines which can cause issues." Site interview – Pathway Navigator

As part of the project, both Trusts have been developing a tracking system that tracks patients in realtime as they move through the different stages of the pathway (within the InfoFlex database). Once development is complete, the tracker will enable the pathway coordinator and a wider group of staff (i.e. MDT staff) to capture data more accurately and efficiently, and run key reports automatically. This will ease the process through which patients are monitored through the pathway.

Workforce requirements: Staff interviewed also highlighted some key roles that are essential to the successful running of the pathway. These include the following:

- *Pathway navigator role:* this role was described by all staff as being essential to ensure that patients travel through the pathway in a speedy and efficient manner. They also act as a single point of contact for patients, which was thought to be beneficial for ensuring that patients know where and when their appointments are (usually informed/reminded via text message), supporting good patient experience. Patient navigators were also essential to making sure tests happen, chasing up test results and reporting, tracking patients (and management of the tracking data) and reducing the administrative burden on the consultant and CNS.
- *CNSs* played an important role overseeing the pathway, supporting respiratory consultants with managing patients, ordering scans and tests, as well as seeing patients in clinic (which reduced the demand on consultant time). They also acted as the first point of contact with patients – something that has been highly valued (see section on patient experience below).

- *Radiology:* staff reflected that it will be important to involve radiology teams in the project early on to support implementation and roll-out of Optimal Lung. In doing so, staff felt that this would support the development of clear lines of communication between teams, and help establish set processes and timeframes for reporting.

Data processing/automation: Data is a key part of the pathway informing both the practical aspects of monitoring performance (i.e. how the pathway has performed against KPIs) and supporting the tracking of patients through the pathway. It also informs project team learning about elements of the pathway (identifying blockages, and their impact).

Both Trusts were, as part of the pilot, developing a detailed patient tracker to form part of the InfoFlex database. The intention was to develop an initial manual tracker (i.e. Excel document requiring manual updating) to track patients through the pathway and use learning from this process to inform the upgrade to the InfoFlex database. However, changes to InfoFlex were delayed and the project team faced persistent issues with IT (e.g. InfoFlex, the Cancer Information System, is very slow – taking several minutes to open and perform simple tasks). This required the use of the manual tracker for longer than initially intended. Pathway navigators at both sites reported challenges around the manual collection of data from multiple databases/software in order to keep a record of patients and ensure data was complete. However, the tracker used in the manual collection of data has been able to inform the automated InfoFlex tracker and has been a key output of the pilot.

"There are several systems to collect data. I don't mind pulling it all together in one place but it takes a lot of back and forth." Site interview – Pathway Navigator

"The data completeness has been an issue the whole way through the project. More because of the time of manually inputting the dates onto the tracker... Because it's constantly ongoing, it's hard to go back and backfill the backlog because you're constantly trying to keep up with the present stuff." Site interview – Pathway Navigator

The key learning for other sites looking to adopt the Optimal Lung pathway emphasises the importance of giving considerable thought to identifying and utilising ways to automate data collection and reporting systems from the beginning of the project.

Role of RMP: Staff interviewed said they valued the input RM Partners had on the project. They played a key role in driving the project, particularly in trying to engage primary care, other departments within the hospital, such as radiology, and supporting the administrative tasks relating to the project. The respiratory consultants have also benefited from networking with one another and sharing learning about the pathway, which was facilitated by RM Partners. This also included the sharing of templates for patient leaflets and information, reducing the amount of duplication of effort for the sites.

7.2 Outcomes and impact

The outcomes and impacts described below derive from anecdotal evidence from staff interviewed and provide some insight into potential outcomes of the project. The intended benefits of Optimal Lung are to speed up turnaround and reporting times and reduce the time to diagnosis, enabling patients to progress quickly to appropriate treatment. Earlier diagnosis should lead to improved patient outcomes including more appropriate care (through fewer emergency admissions), improved staging and an increase in one-year survival. The pathway should also lead to improved patient experience. The introduction of the STT and pathway navigator role has also reduced demand on clinic and consultant time. Each of these intended outcomes are discussed below.

Shortened time to diagnose cancer: Staff reported improvements in the turnaround time from referral to treatment, and this was perceived as the main benefit of the pathway. The key benefit to patients was that they are informed of their diagnosis earlier, reducing the worry time for patients. The STT followed by first outpatient appointment helped speed up this process by removing unnecessary clinical appointments, thereby reducing the demand on consultant time and reducing the number of visits patients need to have before receiving their diagnosis. Previously, patients would have been seen by a consultant before any testing had been done, then sent for tests and then seen in clinic again once the test results were sent back.

"We focused the majority of the funding on solving the front-end issues around reporting and CNS patient engagement...this will lead to people being diagnosed with lung cancer more quickly. We do this by getting them in for a CT scan more quickly than they were previously." Site interview – Cancer Manager

"[Patients] get to know the results much more quickly. So what was taking until day 35, we can now do by day 14. And that's brilliant." Site interview – Consultant

Faster progression to treatment: Staff were optimistic that they were seeing a positive impact on time to treatment as a result of the pathway changes. Though staff were not able to estimate how many patients had been diagnosed with cancer through the Optimal Lung pathway, they reported that for the patients who were diagnosed with cancer, this was happening earlier, and these patients were being treated earlier than they would have been going through the conventional pathway. Staff at sites therefore said that they were better able to meet the target of treating within 49 days as a result of the pathway changes, which had a knock-on benefit for their 62-day standard performance. Staff hoped that once the tracker is embedded into the InfoFlex database, they will soon be able to monitor cancer patient numbers more accurately, which will support teams to demonstrate changes in the numbers of patients treated compared to the conventional 62-day pathway. Additionally, the increased speed of the pathway provides patients with more time to think about their treatment options.

"We've focused on trying to get [the patient's] investigations triaged and then following through. We try to speed up chemotherapy dates and dates with oncology as soon as possible because we are the ones who have met the patients, so we are the ones pushing for appointments." Site interview – CNS

"It has had a positive impact on treating patients within 49 days." Site interview – Consultant

More efficient use of staff time: Staff also reported the positive impact the pathway has had on efficiencies within the hospital. For example, the introduction of STT has reduced the number of outpatient appointments (that would have occurred via the conventional pathway), freeing up consultant time. Similarly, the addition of the pathway navigator and CNS roles has enabled improved delegation of tasks. The pathway navigator is able to take responsibility for the majority of administrative tasks (e.g. tracking patients, following up on test results) allowing the CNS to support the consultant with clinical tasks (e.g. requesting tests and supporting patients in clinic).

The pathway had aimed to achieve potential **avoidance of emergency admission** (through the STT for abnormal chest X-rays and improved triage and management of abnormal CTs) and **improved one-year survival**. It is not possible to measure these outcomes within the timeframe of the evaluation, but measurement of these outcomes may be possible over the longer term. However, staff said they expected the pathway to lead to improved clinical outcomes and better management of lung cancer patients.

7.2.1 Patient experience

All sites reported positive feedback from patients – staff perceived the positive impact Optimal Lung was having on patient experience as a key strength of the pathway. This is reflected in the three patient interviews that were carried out for patients who have been through the Optimal Lung pathway, across the two sites.

The speed of the pathway was also valued by the six patients interviewed. In particular, being able to get a diagnosis (whether positive or negative) quickly was very important. Patients were satisfied with the speed at which it took for them to undergo a chest X-ray and CT scan after referral, with them estimating that this all happened ‘very quickly’ within a week.

“I was just lucky to get an appointment so quick...I was petrified at first, but once you have the scan and all that, you know what’s involved...couldn’t fault them at all. You don’t really have to think about it but you’re not prolonging it.” Patient interview – St George’s (Negative diagnosis)

“After I had the chest X-ray, I got a call from the hospital and immediately they booked me in for the next day to come and have a CT scan.” Patient interview – London North West (Negative Diagnosis)

Staff in the case study interviews reported that informal patient feedback showed good satisfaction with the service. Staff reported that having the pathway navigator as a single point of contact was particularly beneficial to patients as they had a key point of contact who was able to communicate appointment times and locations, diagnostic procedures, and get support with any worries they may have.

These views were echoed by the three patients interviewed. The relationship between the patient and the CNS, particularly for those patients receiving treatment for a positive diagnosis, was valued by patients who felt that someone with knowledge was there to help them through the whole process.

“[The CNS] said if there was anything I wanted to talk about, give me a ring and I could call at any time. She was very nice.” Patient interview – St George’s (Positive diagnosis)

“The CNS helped me come to a decision about the treatment and within two or three weeks we had it done. They then looked after me and checked up on me regularly to see how I was doing.” Patient interview – London North West (Positive diagnosis)

The patients interviewed reported that they were satisfied with the engagement they had with the hospital staff. They felt well informed about the different aspects of the pathway: for example, at entry into the pathway patients were clear about when and where to go for the chest X-ray and CT scan (supported by the pathway navigator). In particular, patients said they felt that the concern with their lung health was being taken seriously and treated as quickly as possible.

“[The oncologist] gave me a choice. They said I can either have radiotherapy or a third of the lung taken away. He recommended I have it cut out...which I did.” Patient interview – St George’s (positive diagnosis)

7.3 Next steps for the intervention

Optimal Lung will continue to be embedded at the two sites. There was support at both sites to continue with the pathway and continue to work towards faster turnaround and treatment times. In particular, both sites have confirmed that the pathway navigator role will continue beyond the pilot in order to deliver ongoing support to the pathway. At the time of

interview, the pathway navigator at St George's was confident that their position would be continued. As described earlier, there was some concern about the practicalities of achieving a CT scan within 72-hours, and staff thought a longer period of between 5-7 days would be a more realistic target. It is understood sites will continue to work based on these revised timescales. However, it is anticipated that further radiology capacity will be brought in to support reporting, which should help Trusts move towards greater compliance with the target timeframes.

"It's gone very well. I am much more upbeat about it now and it's been much more successful than I thought it was going to be. I'm really pleased...There were some blockages and usual bureaucracy along the way. But it's gone much better than I thought and we can sustain it now." Site interview – Consultant

Learning from the Optimal Lung pilot is being embedded within the pathway through a radiology-led SOP which aims to aid consistency of reporting around CT scans. At St George's Hospital, learning from the pathway is being disseminated across the site (to other tumour sites) through promotion of the pathway and its processes during meetings and working groups, led by the pathway's respiratory consultant. Both sites said that they will be moving their attention towards how they can improve processes towards the latter stage of the pathway (i.e. progressing patients towards treatment) over the next year.

RM Partners is looking to roll out the pathway changes across all sites in the long-term.

Early diagnosis interventions:

Early Access Projects

8 Early Access Projects: Summary

This chapter provides a high level overview of RM Partners' early access projects – looking at the main achievements, financial sustainability and lessons learnt for wider roll out of the projects.

8.1 Overview of the early access projects

As part of its 2017/18 – 2018/19 early diagnosis cancer Transformation Funding, RM Partners has funded eight 'early access' projects. The series of projects focused on achieving earlier diagnosis principally through seeking to improve screening coverage, and improving cancer awareness in primary care through GP education and training. Other projects include identifying asymptomatic patients for a Lung Health Check, improving dermatology referrals, and the safety netting of patients.

A brief summary of each project is provided below.

Bowel Screening: The aim of this project was to support people who had not completed their bowel screening test to do so, and to raise awareness and encourage people to take part in the programme. In doing so, the project would help bring West London in line with the national target of 60% for the uptake of bowel screening. It involved trained Health Facilitators to contact individuals who had not responded to a bowel screening test in the last six months to encourage their participation. The project was run in all Clinical Commissioning Groups (CCGs) and will now be rolled out to a new cohort of patients in all CCGs, this time with the Faecal Immunochemical Test (FIT).

Cervical Screening: The cervical screening project was designed to increase access to cervical screening by offering extended screening clinics in a variety of locations and at different times/days of the week. The project has been piloted in Hammersmith and Fulham, Merton and Wandsworth. The cervical screening project will continue under the next round of Transformation Funding, with the ambition that additional clinics will be offered to as many areas as possible across the whole patch.

Marginalised Groups: The screening in marginalised groups project was set up to increase cancer screening among marginalised groups in Kingston, largely through community engagement. This project was led by a community development worker in Kingston Borough Council. The community engagement activities will continue for the next 12 months, with an increased focus on creating more strategic partnerships with local organisations.

Low Dose CT (Lung) Case Finding: The Low Dose CT Case Finding project aims to diagnose patients with lung cancer earlier by identifying the population at increased risk of lung cancer, and then inviting them for a Lung Health Check and, where eligible, a low dose CT scan in an accessible and convenient place. The project is being delivered across two CCGs in West London and provided by the Royal Brompton Hospital: Hammersmith and Fulham (patients are invited to the Royal Brompton Hospital) and Hillingdon (via a mobile unit and CT scanner in a supermarket carpark). The pilot will continue in 2019/20, and targeted Lung Health Checks using CT scanning are also being piloted nationally by NHS England across ten different sites.

GP Decision Support Tool: Across three CCGs, RM Partners has trialled C the Signs – a digital tool to assist GPs and other primary care clinicians to successfully identify cancer symptoms and refer appropriately in response. Through use of the tool, the intention was to observe an increase in appropriate referrals (which could be reflected in a decline in referral

rates) and an increase in conversion rates. Going forward, RM Partners plans to roll out the C the Signs tool to at least eight of the 14 CCGs across West London.

GP Education Events: RM Partners funded six day-long education events aimed at GPs and other practice staff to assist them in interpreting the NG12 guidance and being able to recognise potential cancer symptoms at an early stage, as well as providing a comprehensive overview of all aspects of cancer care based on the most recent evidence and guidance. RM Partners commissioned Red Whale to run the events, which GPs, practice nurses and practice pharmacists could attend for free. RM Partners will fund a further four training events in 2019/20

Safety Netting: A Safety Netting tool was piloted in GP practices across three CCGs in North West London. The tool introduces a standard approach to tracking and monitoring patients who are at risk of cancer, with the overarching aim being to prevent and diagnose cancers earlier. It allows users to generate an automated report from electronic health records, summarising patients who may need follow up or further action. The Safety Netting project will no longer be actively pursued by RM Partners though GP practices making use of the tool can continue to do so and there is a safety netting element to the C the Signs tool.

Dermatoscope: The overall aim of this project was to decrease the number of inappropriate dermatology referrals into secondary care, in order to reduce the burden on cancer pathways, and to improve patient satisfaction. Three GPs in Sutton were provided with dermatoscopes (equipment to enable more accurate identification of types of skin lesions) and c.10 three-hour training sessions with a senior dermatology consultant. There are no plans to continue the dermatoscope training into the next round of RM Partners' Transformation Funding.

8.2 Impact of the early access projects

8.2.1 Impact on cancer staging and emergency presentations

RM Partners set the target of improving cancer staging by 3.9% by the end of March 2019. Delays in the availability of nationally published staging data mean it is not possible to assess whether this target has been met or not. However, the data available suggests there has been positive progress towards seeing a greater proportion of patients diagnosed at stage I or II for RM Partners compared to England overall. Between 2016 and 2017 there was an uplift of 1.9% in the proportion of patients being diagnosed at stage I or II for RM Partners, at a time when England as a whole saw a slight decline of -0.2% (recognising that RM Partners received the Transformation Funding in Q1 2017/18 i.e. in April/ May/ June of 2017).

Table 8.1: Proportion of patients diagnosed at stage I or II (Taskforce definition)

	RM Partners	England overall
2014	54.9%	54.5%
2015	54.1% (-0.8%)	54.1% (-0.4%)
2016	53.8% (-0.3%)	53.9% (-0.2%)
2017	55.7% (+1.9%)	53.7% (-0.2%)

By the end of March 2019, RM Partners wanted to see a reduction in emergency presentations of 3.3%. The time-lag in nationally published data means it is not possible to ascertain whether this target has been met. However, there are some positive indications that RM Partners has been able to reduce the proportion of new cancers presenting as an emergency – more so than in England overall. Between Jul-16/Jun-17 and Jul-17/Jun-18, emergency presentations declined by 1.8% for RM Partners, compared to a decline of 0.6% for England overall.

Table 8.2: Proportion of new cancer patients presenting as an emergency

	RM Partners	England overall
Jul-13 to Jun-14	21.1%	20.2%
Jul-14 to Jun-15	21.0% (-0.1%)	20.1% (-0.1%)
Jul-15 to Jun-16	20.9% (-0.1%)	19.7% (-0.4%)
Jul-16 to Jun-17	19.5% (-1.4%)	19.4% (-0.3%)
Jul-17 to Jun-18	17.7% (-1.8%)	18.8% (-0.6%)

8.2.2 Impact of the early access projects

Table 8.3 provides a summary of the outputs, outcomes and impacts of the early access projects. Whilst the projects are diverse in nature, collectively they have progressed ambitions in relation to:

- **Screening:** Large numbers of the public have been invited to take part in a screening test or health check (over 25,000 patients for bowel screening, 8,250 for cervical screening, and over 10,000 for Low Dose CT (Lung). And sizeable numbers have been screened as a result (2,401 bowel screening kits have been returned, 1,878 cervical screen tests have been completed, over 1,500 people have attended a Lung Health Check and over 1,100 have had a low dose CT scan as a result). Targets for those invited and screened were not set for the Bowel Screening or Cervical Screening projects. RM Partners has exceeded its target for the number of individuals invited for a Lung Health Check as part of the Low Dose CT (Lung) project (almost doubling the target). Though the number of low dose CT scans delivered is 400-900 shy of target, and this reflects the 6-9 month delays this project has faced and a lower uptake of the Lung Health Checks than anticipated. Data are not available to assess the impact of these screening initiatives on the earlier detection of cancer.
- **Training:** Sizeable numbers of GPs and practice staff have received training to improve their cancer awareness and referral behaviour (669 individuals attended the GP training events, 56 individuals received training on use of the Safety Netting tool, and three GPs have received one-to-one training regarding skin lesions and dermatology referrals). Though not explicitly about training, 322 practice staff have made use of C the Signs and therefore been assisted in their interpretation of the NG12 guidance. The number of attendees at the Red Whale events exceeds RM Partners' target of 600, and the Dermatoscope target has been met, though uptake of the Safety Netting tool and training was substantially lower than anticipated with funding set up to accommodate c.320 practices.
- **Engagement:** Across the early access projects, large numbers of GP practices, their staff and the general public have been engaged in some way. Uptake of projects and their activities has been high for the Bowel Screening work (82% of practices signed up in South West London), for the work with marginalised groups (over 600 members of the public engaged), and for C the Signs (91% of practices signed up to make use of the tool).
- **GP confidence:** There are a number of indicators to suggest the confidence of GPs and other practice staff has been positively impacted by the early access projects. The training delivered by Red Whale, for safety netting and for the Dermatoscope project have been very well received (over 97% of Red Whale event attendees rated the course content, course relevance, presentations and handbook as 'good' or 'excellent', and 100% of the safety netting training attendees said it was 'very' or 'fairly useful'). C the Signs has been shown to positively impact GP confidence in the East of England pilot, with 86% of users saying they were more confident in knowing when to organise a test, investigation or referral as a result of using the tool.
- **Patient experience:** Patient experience was not captured (or indeed relevant) for all of the early access projects, though where it was, positive feedback has been received. Women attending a cervical screening clinic reported

favourably on the convenience of the clinics and the nature of the nurses attending to them. The engagement events with marginalised groups were well received with high proportions of attendees learning new knowledge and leaving with improved confidence to advocate screening to family and friends.

- **Wider learnings:** All the projects undertaken have generated lessons for wider roll out (discussed in full in each project-specific chapter), though the learnings from some projects can be used more extensively to improve the delivery of services and engagement with the general public. This includes the intelligence secured on screening habits through the Bowel Screening project, the lessons on how best to engage marginalised groups, and the implementation learnings from the Low Dose CT (Lung) project which can feed into the national pilot.

Table 8.3: Summary of the outputs, outcomes and impacts of the early access projects

Project	Outputs	Outcomes/impact
Bowel Screening	82% of practices signed up in South West London Over 25,000 patients called Over 16,000 bowel screening kits sent out 2,401 screening kits returned so far	The project has introduced consistency across practices in how they are promoting bowel screening to their patients, and generated helpful intelligence on screening habits
Cervical Screening	8,250 patients invited for screening (across two of the three pilot areas) 1,878 cervical screening tests completed	50% of participating GP practices show an increase in screening participation in Hammersmith and Fulham, with two having improved by over 10% and another two by over 15% Positive impacts on patient experience have been observed
Marginalised Groups	Over 600 people (611) from marginalised groups engaged 400 people contacted by letter in their first language	96% of event attendees said they knew more about cancer 92% said they understood the importance of screening and felt confident enough to advocate screening to friends and family 74% said they were more likely to engage with screening services Valuable lessons in engaging marginalised groups and community engagement work have been secured
Low Dose Lung CT (Lung) Case Findinng	Over 8,000 patients invited for a Lung Health Check Over 1,700 patients undergone a Lung Health Check Over 1,100 patients undergone a CT scan	No quantitative data presently available for outcomes and impact. It is expected that the CT scans will lead to the identification of early stage lung cancers The Lung Health Checks are likely to have a positive public health impact Reported feedback from patients has been positive
GP Decision Support Tool	322 individual users registered with C the Signs 91% of practices across the three CCGs signed up	The East of England pilot evidenced no increase in referral rates as a result of the tool, an increased cancer detection rate of 3.03% (compared to 0.12% in non-pilot sites in the East of England), and a reduction in emergency admissions Data from the East of England also showed improved confidence among GPs
GP Education Events	669 individuals attended the events	Over 97% of event attendees rated the course content, relevance of the course, the presentations and the accompanying handbook as 'good' or 'excellent' A number of examples of event attendees doing something differently in their practice as a result of the training are evident
Safety Netting	56 GPs and practice managers attended the training events Tool piloted by 7 practices	100% of training attendees said it was 'very' or 'fairly useful' Some practices intend to continue use of the tool Reach of the tool has not been as great as hoped
Dermatoscope	3 dermatoscopes bought 3 GPs trained	The trained GPs are using the dermatoscope in their consultations to help diagnose patients and make more informed referrals They are also providing colleagues with a second opinion on

	dermatology referrals
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8.3 Implementation lessons

Given the diversity of the early access projects, many of the implementation lessons are project-specific. However, a number of common implementation lessons can be drawn, as discussed below:

- **Engaging GP practices:** Nearly all of the early access projects have relied upon successful engagement of GP practices and their staff. For a number of the projects (Bowel Screening, Cervical Screening, and the GP Decision Support Tool), CCG cancer leads and Macmillan GPs have been of paramount importance to successfully engaging practices. These individuals have proved to be trusted and well known ambassadors for the projects which has helped ensure better awareness and engagement as a result. In addition, projects have been more successful where there are clear motivations to take part for GPs and practices. This may be because the project represents little additional work and is considered a low burden (such as Bowel Screening), or where GPs or practices stand to benefit (such as free attendance to the education events, or support with interpreting the NG12 guidance through the C the Signs tool). The manual administration required alongside use of the Safety Netting tool was considered one of the reasons for lower than hoped take up.
- **Time delays:** Nearly all the early access projects ran to schedule, though C the Signs have experienced some delays in integrating the tool with EMIS, and the Low Dose CT (Lung) project has experienced significant delays of 6-9 months. A common contributing factor to time delays are information governance requirements. For C the Signs, information governance arrangements have been principally agreed with the CSU but have still required sign off from each of the three CCGs which has taken time. For Low Dose CT (Lung), information governance arrangements have had to be agreed with 20 individual GP practices, a Trust, and two CCGs, again requiring significant time. Projects that require access to GP patient data will require information governance consideration – timelines for these projects need to be realistic and allow for significant flex. One of the challenges is the range of organisations which need to be involved in information governance arrangements in primary care (CCGs/ CSUs/ STPs etc), however RM Partners may wish to reflect on how information governance arrangements can be handled most efficiently within these constraints. For example, the Bowel Screening project provides a good example of how information governance issues were streamlined – through the availability of common data sharing agreements and templates.
- **Reliance on individuals:** The success of some of the early access projects are credited heavily to the involvement of particular individuals. For example, it was thought to be hugely beneficial that the founders of C the Signs were themselves healthcare professionals and could therefore better appreciate the pressures facing GPs and the solutions required by them. The marginalised groups project was also heavily reliant on the skill set and behavioural attributes of the community development worker (though they were supported by the Public Health team at Kingston and given direction by RM Partners). The Health Facilitators delivering the Bowel Screening project were trained in how to discuss bowel screening persuasively (including bowel habits) and spoke a range of languages. Such a reliance on individuals builds risks of instability into projects which requires consideration from RM Partners.
- **Opportunities for greater efficiencies:** As some of the early access projects progress under the 2019/20 Transformation Funding, there are opportunities for greater efficiencies in how they are delivered. For example, there may be other models for carrying out calls for the Bowel Screening project (currently done from within GP surgeries).

- **Culturally appropriate work:** Though not a new concept, the marginalised groups project has really emphasised the importance of engaging all groups within society in RM Partners' work and ensuring how it does so is culturally appropriate. Lessons in engagement are already being taken forward by RM Partners from the Marginalised Group project, but also from what has been learnt through both the bowel and cervical screening projects.

Note, a number of assumptions underpin the economic analysis summarised here – the details of which are provided in the project-specific chapters. For a number of projects (Marginalised Groups, Low Dose CT (Lung), GP Education Events and Safety Netting), economic analysis of their financial stability has not been undertaken – principally where the data available was not viable for economic synthesis.

9 Bowel Screening

Chapter summary

The aim of this project was to support people who had not completed their bowel screening test to do so, and to raise awareness and encourage people to take part in the programme. In doing so, the project would help bring West London in line with the national target of 60% for the uptake of bowel screening. Community Links have called over 25,000 patients across West London, and over 16,000 bowel screening kits have been sent out. The available data (for Wandsworth, Richmond, Merton and Kingston) show that so far 2,401 screening kits have been returned. Because of a lag in the availability of the data, it will not be possible to show how this impacts screening uptake within the timeframes of the evaluation.

There are a number of implementation lessons that can be drawn from this project. The project has been highly popular with practices, as demonstrated by the number of practices that signed up (82% in South West London) – and it was noted that a strong motivation for practices to improve bowel screening rates in their area drove this high engagement; in areas where bowel screening uptake is slightly higher – in Richmond for example – it was more difficult to get GP buy-in. The project has been well managed by Community Links, and participants in the interviews noted that there was a low burden on practices taking part. It was noted that Health Facilitators have been able to speak to patients persuasively about the importance of screening.

The Bowel Screening project was part of RM Partners' recent bid for transformation funding, and the intention is to continue with the project in the same Clinical Commissioning Groups (CCGs), and roll it out to the next cohort of patients, this time with the Faecal Immunochemical Test (FIT).

Bowel cancer screening aims to detect bowel cancer at an early stage before symptoms have a chance to develop. Men and women from the age of 60 are eligible. This project aimed to support people who had not completed their bowel screening test to do so, and to raise awareness and encourage people to take part in the programme. In doing so, the project was designed to bring West London in line with the national target for the uptake of bowel screening, which is 60%. At the time of project initiation (July 2017), CCG performance in North West London varied from 54%, to as low as 36%; South West London varied between 48.7% and 56.1%.

Previous studies have found that phoning patients to provide information about bowel screening and offering to answer questions, used in combination with a GP letter, increases bowel screening participation by around 8%.⁴¹ This project built on this evidence, and involved trained Health Facilitators contacting people, by telephone, who had received the test in the last six months but had not responded.

Community Links, a charity based in London were appointed to undertake the calls to patients. Community Links specialises in delivering telephone support programmes designed to increase screening participation amongst populations who are less likely to take part, or have 'low participation'. The charity has been working in London – primarily

⁴¹ 1. Hewitson, P., Ward, A., Heneghan, C., Halloran, S. & Mant, D. (2011) "Primary care endorsement letter and a patient leaflet to improve participation in colorectal cancer screening: results of a factorial randomised trial".

East London – for over 40 years, and has been delivering telephone support programmes to increase screening participation since 2010.

For the Bowel Screening project, Community Links made up to three attempts to reach patients, and requested bowel screening kits from a London Hub to send out to patients who agreed to take a test. They conducted follow up calls after four to six weeks of requesting replacement kits. The project is being rolled out in most CCGs in West London.

Interviews with Community Links, Cancer Research UK (CRUK), and a practice manager were carried out in January 2019. This builds on the interviews with two practice managers, and three CCG leads interviewed in October 2018. The RM Partners lead was also interviewed in October 2018, January and April 2019.

9.1 Implementation of Bowel Screening

As of March 2019, Community Links completed calls in South West London – where all CCGs took part. Calls began in CCGs in North West London in December 2018 and, at the time of writing (April 2019), were still in progress in Hammersmith and Fulham GP Federation (H&F), Kensington and Chelsea, Hounslow, Hillingdon, Brent and West London..

Between September 2018 and March 2019 Community Links called over 25,000 patients, and over 16,000 bowel screening kits have been sent out. As table 9.1 demonstrates, 82% of practices across the South West London CCGs have signed up (practice uptake ranges between 23% and 100% and outstrips the target uptake of 80% in four of the five CCGs).

Table 9.1: Activity data for Bowel Screening, South West London (September 2018 – March 2019)

KPI	Target	CCG						Total
		Croydon	Kingston	Merton	Richmond	Sutton	Wandsworth	
% of GP practices signed up	80% overall	90%	90%	91%	23%	96%	100%	82%
Number of patients contacted by the service	N/A	8,267	4,161	3,627	1149	4,051	6,497	27,752
Number of patients talked to	N/A	5,522	2,741	2,410	748	2840	4,205	18,466
Number of kits re-ordered	N/A	3,755	1,648	1,559	445	1,828	2,637	11,872

Table 9.2: Activity data for Bowel Screening, North West London (December 2018 – March 2019)

KPI	Target	CCG					Total
		H&F	Hillingdon	Hounslow	West London		
% of GP practices signed up	80% overall	TBC	TBC	TBC	TBC	TBC	TBC
Number of patients contacted by the service	N/A	2,820	6,262	5,431	4,659		19,172
Number of patients talked to	N/A	182	1,135	3,455	2,523		7,295
Number of kits re-ordered	N/A	119	653	2,113	1503		4,388

The project was initially signed off at system level (through the Sustainability and Transformation Partnership) – which took about six months to secure. RM Partners then needed to secure agreement with each individual CCG, followed by communications to the GP practices themselves.

Calls had to be made from GP practices as patient data had to remain within the practice. Practices were engaged through CCGs, who sent communications out to practices signed jointly by RM Partners and the CCG Macmillan GP wherever possible. Some areas proved more challenging to engage in the project than others. Croydon CCG is large with over 60 practices so more time was required to engage all practices, compared to smaller CCGs such as Sutton. Practices in Richmond have care navigators who go into practices to carry out similar work, and these practices therefore felt that they did not need to use Community Links' services in addition to this. Aside from this, the main factor preventing GP practices taking part was if they had an issue with the space available to have Community Links coming in to make calls to their patients.

Community Links took a staggered approach to roll-out to the practices that agreed to take part, as they were not able to resource all practices in London at once. They worked with each individual practice to access patient data, conduct a patient search, and then Health Facilitators made the calls to patients from the GP premises. Community Links carried out follow up calls with patients up to three months after the initial call to check in with the patient and make sure they hadn't experienced any issues completing their test. In total, Community Links reported that they might be working with a practice, on and off, for around six months from initial engagement to the final patient calls.

To deliver the project, Community Links recruited four project officers to oversee the programme (each taking a different CCG, and responsible for the practices within that area), and 20 Health Facilitators who were employed on a sessional basis. The Health Facilitators were recruited to ensure they spoke a range of languages, they also needed to have good Excel skills, experience with telephone interviewing (e.g. call centres), be familiar with the area and willing to travel. They were trained by Community Links and CRUK to ensure they could comfortably discuss symptoms of bowel cancer, instruct patients on how to use the bowel screening kit, how to reassure patients and encourage them to take part.

Community Links used their own mobiles to make the calls, which had its advantages as it reduced the burden on practices' resources. However, some practices asked Community Links to make their calls from the practice number to ensure patients knew the communication was coming from them.

9.1.2 Implementation lessons

The Bowel Screening project achieved a high level of engagement from practices, and participants in the interviews were satisfied with the way the project had been managed and delivered. The following outline the key lessons that can be drawn from rolling out the Bowel Screening project:

- **Promoting the project in primary care:** Having a Macmillan GP on board within the CCG assisted RM Partners in accessing GP practices. CRUK facilitators also assisted in promoting the project to GPs, and were thought to be valuable in validating the credibility and quality of the project. RM Partners and Community Links also used GP and practice manager forums to introduce the project to primary care; this was felt to be an effective means of getting practice buy-in, giving GPs the opportunity to ask questions together, and therefore get agreement across the patch rather than through individual GP practices. CRUK also helped broker relationships with individual practices, and it was useful for Community Links to have access to the local knowledge and networks that CRUK were able to provide.

- **Providing concise information to GPs:** CCG and CRUK representatives reflected that it was important that concise information was provided to practices from the beginning that answered questions on the benefits of the project, what was required of the practices, and information governance. To introduce the project accurately to practices, CRUK needed a detailed understanding of the role Community Links would play, and the conversations they would be having with patients. They reflected that ideally they would have been provided with detailed information about the project early on to assist with engaging practices.
- **Setting up information governance protocols with each practice:** Community Links needed to secure data sharing agreements with the participating practices. To streamline the process for practices, CCGs made a data sharing agreement available on their website, as well as a template for practices to use. Input from North East London Commissioning Support Unit (NEL CSU)'s Information Governance Manager supported this process – carrying out a data processing impact assessment and providing a data sharing agreement that could be used if practices did not have one.
- **Motivation for GPs to take part:** As demonstrated by the number of practices that signed up, GP response was very positive. This was attributed to the strong motivation for practices to improve bowel screening rates in their area, and it was suggested that in areas where bowel screening uptake is slightly higher – in Richmond for example – it was more difficult to get GP buy-in. The project also requires very little time or resource from the practices themselves which has helped when getting their buy-in.
- **Low burden on practices:** For practice managers and the CRUK facilitators working closely with them, the project delivery was described as 'almost unnoticeable' once there was agreement in place with the practice for the project to begin. Practice managers noted that the project required very little input from them – only finding a room and a computer. Furthermore, the three practice managers interviewed were very satisfied with their experience working with Community Links who were described as efficient, knowledgeable and easy to work with. They were regularly in contact with practices, kept the practices informed about what was happening next, and procedures were well explained.
- **Skills of the Health Facilitators:** It was noted by RM Partners that Health Facilitators were able to speak to patients persuasively about the importance of screening. Community Links said that it was important that Health Facilitators were confident on the telephone and able to comfortably talk about sensitive issues (including bowel habits): "*they can't be shy because the patient is often shy*". Practice managers observed that the Health Facilitators were effective in navigating difficult discussions with patients, and able to alleviate the fear and embarrassment of talking about stool samples and bowel habits. They noted that it would be difficult to train their own receptionists to carry out this role to the same standard.
- **Carrying out calls from a central hub:** It was suggested that carrying out calls from a central location (e.g. via the bowel screening hub) would be more efficient as it would not require engagement with GPs or visits to practices. Community Links have been able to do this for the breast screening programme (commissioned by NHS England). The drawback to this is it would be harder for practice staff to shadow Community Links workers.

9.2 Outcomes and impact

At the time of writing, data is available for Wandsworth, Richmond, Merton and Kingston: so far 2,401 screening kits have been returned.

Table 9.3: Outcome data for Bowel Screening

Outcome	Target	Kingston	Merton	Richmond	Wandsworth	Total
Number of bowel screening returns following the call	N/A	602	602	118	1,009	2,401
Bowel screening Uptake % by CCGs in scope of project	Reach 60% target (overall)	TBC	TBC	TBC	TBC	TBC

Because of a lag in the availability of the data, monitoring the impact on screening uptake for CCGs taking part in this project will not be possible within the timeframes of the evaluation. However, it is possible to use national screening data from 2017/18 to make an assumption on what impact this may have on overall screening uptake in the participating CCGs. With the additional numbers screened under RM Partners' project, screening uptake in Wandsworth would rise from 46% to 55%. In Kingston screening uptake would rise to 59% (from 52%), in Merton to 55% (from 49%), and in Richmond to 55% (from 53%). This is based on an estimate, and should be treated as indicative only⁴². 47 abnormalities were detected through the returned screening kits. RM Partners are investigating if it is possible to determine what proportion of these abnormalities were identified as stage 1 or 2 cancers through the screening hub.

Participants in the qualitative interviews were positive about the impact the project has had. The project has introduced consistency across practices in how they are promoting bowel screening to their patients. The work practices were already doing to increase bowel screening was varied, and heavily dependent on the resources available within the practice. A practice manager reflected that the experience of working with Community Links had changed their perspective on how to approach bowel screening, and the importance of providing training for staff to be able to have informed conversations with patients about the importance of screening and how to use the kits. They have fed this back to the CCG. It was also noted that the project could have a long-term benefit for screening – if people test once they are more likely to test again in future – however this will not be monitored within this evaluation because of the timeframes.

Interviews with CCGs' representatives suggest that this project has the potential to collect useful intelligence on screening habits. They would like to understand why patients are not carrying out a screening test when they are first invited to via the national screening programme, and other details such as how up-to-date practices' patient information is which will help to inform screening policy in future. It appears that Community Links is collecting data that would be useful to inform screening policy, and RM Partners should therefore share this data once it is complete. For example, the following data has been collected in Wandsworth:

- Of the 2,292 patients not reached in Wandsworth, only five per cent was due to an incorrect number.
- Data on why patients had not completed the screening as part of the national screening programme shows that almost half (48%) had not received the kit in the first place, 12% said they were not interested, and 11% had lost the kit.

⁴² According to PHE data, 5,739 people screened in Wandsworth in 2017/18 (46.4% of the population). An additional 1,009 screened with the RMP project as demonstrated in table 9.3: this would take the total people screened in 2017/18 to 6,748, roughly 54.5% of the target population.

<https://fingertips.phe.org.uk/search/cancer%20screening#page/0/gid/1/pat/46/par/E39000018/ati/152/are/E38000004/iid/91342/age/266/se/4>

- 17% of the 4,206 patients contacted declined to take part in this project. 22% gave no reason for declining, 20% said it was because of a health issue, 19% did not feel there was a need for the test (e.g. no symptoms or no awareness of the benefits of early detection).

CRUK also said that this data would be useful to continue to engage practices in bowel screening, and suggested that more updates from RM Partners on the progress and achievements of the project would be useful.

9.3 Next steps for the intervention

The Bowel Screening project was part of RM Partners' recent bid for Transformation Funding, and the intention is to continue with the project in the same CCGs by making calls to the next cohort of patients.

10 Cervical Screening

Chapter summary

The cervical screening project was designed to increase access to cervical screening by offering extended screening clinics in a variety of locations and at different times/days of the week, as well as raise awareness of cervical screening. The project has been implemented in three pilots, in Hammersmith and Fulham, Merton and Wandsworth through the GP Federations. Clinics have been established in each pilot, although implementation is further progressed in Hammersmith and Fulham. In all three areas, once the pilot was running it has been fairly simple to administer and manage.

Key lessons for implementation have included: selecting a model that works for each Federation; engaging with practices leveraging already-existing relationships; selecting a workforce model that works via enthusiastic nurses taking on additional work; and having a clinical lead to drive implementation forwards.

Across the three pilots, a total of 1,878 cervical screening tests have been completed within the clinics (781 in Hammersmith and Fulham; 478 in Merton; and 619 in Wandsworth). Data on cervical screening rates is only available in Hammersmith and Fulham, where half of participating practices show an increase in participation. Positive impacts are noted for patient experience.

The cervical screening project was designed to increase access to cervical screening by offering extended screening clinics in a variety of locations and at different times/days of the week, as well as raise awareness of cervical screening. It was anticipated that, by offering more clinics dedicated to cervical screening, the outcomes would be increased screening uptake, reduced health inequalities and more informed patients, with earlier diagnosis and improved cancer staging. The impacts this would lead to include improved overall and one-year survival rates and improved patient experience.

The project has been piloted by GP Federations in Hammersmith and Fulham, Merton and Wandsworth. The pilots began in April 2018 in Hammersmith and Fulham, July 2018 in Merton and October 2018 in Wandsworth.

As part of the evaluation, interviews were carried out in October 2018 with two project leads at Hammersmith and Fulham GP Federation, and the lay representative of their steering group. In March 2018, two interviews were conducted with the project leads at the Merton and Wandsworth GP Federations. The RM Partners lead was also interviewed in October 2018 and April 2019.

10.1 Implementation of the cervical screening project

All three areas have implemented the pilot and are now running additional clinics for women to attend for cervical screening. The model used in each pilot differs, as described below.

Hammersmith and Fulham GP Federation: project staff contact women who have not attended for screening, to offer screening at one of the clinics (or their own practice, if preferred). The clinics are operated in host practices for all practices across the Federation, and are staffed by practice nurses employed centrally who rotate around different clinics. In addition to this, the Federation is undertaking a media campaign funded by RM Partners to encourage women to attend screening tests. As of October 2018, seven new clinics had been established, running from five practices in the area.

The initial aim had been to recruit practice nurses who would dedicate all of their time to cervical screening, but recruitment was challenging as practice nurses did not wish to do this. The Federation therefore recruited five nurses, employed on a contractual basis and equating to just over one full-time equivalent nurse, and can call on bank nurses when required. This allows for sickness and holiday to be accommodated for and has been working well.

The Federation also recruited two healthcare support workers to contact women to invite them for screening; it took some time to recruit the right individuals but the impact on increased number of contacts with women is evident. Healthcare support workers were trained on how to talk to patients and encourage them to have screening, as well as clinical system training so they could access patient records. The project team developed a script for the healthcare support workers to use (which they have also shared with other Boroughs), and began by sitting in on calls with the healthcare support workers, until they were competent and confident to speak to women independently.

Merton GP Federation: The Federation operates a similar approach, running four clinics per week with one practice in each quadrant (North, South, East and West) hosting a clinic. The clinics are staffed by nurses at those practices but are open to patients from any practice within the Federation. Women can either book an appointment via their own practice, which has access to the appointment slots at each clinic, or they can contact a central team to book an appointment. Merton have actively opted to offer clinics at practices close to tube and rail services, so that those working in central London who are not able to get back to their practice in time for an appointment can utilise the extended hours clinics close to a transport link. The service is being promoted to encourage women to book and attend cervical screening tests, with an additional element of contacting those people approaching their first cervical screening (age 25) and calling them to encourage attendance.

In Merton, the practice nurse completes an additional shift within their practice at a good rate of pay, making it both easy and attractive for them to staff the clinics. In addition, practices that are generally not able to recruit enough nurses and therefore potentially struggle to offer enough appointments for screening would be able to access these additional appointments since they do not need to be staffed within their own practice.

Wandsworth: Here cervical screening clinics are set up so that practices see only their own patients (it does not operate a hub and spoke model). Of the 40 practices within the Wandsworth Federation, 12 have signed up to the pilot and are running clinics staffed largely by their own practice nurses. Each practice determines for itself when to run the clinic and sends letters and text messages to those who are due for screening or who have been invited but not attended. Practices also promote the service to their patients. Though recruitment has not been an issue in Wandsworth because they use their own practice nurses, a list of practice nurses who carry out local work was compiled to call on if a member of staff is not available at the practice.

10.1.1 Implementation lessons

For Hammersmith and Fulham and Merton GP Federations, there were some initial obstacles to implementation to overcome, while in Wandsworth implementation was more straightforward. In all three areas, once the pilot was running it was reported to be fairly simple to administer and manage. The following outline the key lessons for rolling out the cervical screening project:

- **Delivery model:** Each of the three pilots developed a model that worked in their Federation, depending on their own internal structure and already existing arrangements. For example, in Merton, an ongoing access hub project had similarities with the cervical screening project, and this meant it was fairly straightforward to use the same approach, just adding to what was already running. In Wandsworth a model was selected whereby practices would only see their own patients, as this reflects the Federation's structure.

- Motivation for practices:** In all three pilots, it was reported that a clear motivation for practices enabled implementation. In this case, practices were offered the opportunity to reach women who may otherwise not be screened, with a potential increase in QOF payments paid directly back to the practice, and without any cost to themselves. This clear benefit to practices both encouraged Federations to take the pilot forwards, and encouraged many practices to get involved.

"They get a QOF payment for every patient that's processed, so we're seeing their patient for them, they're getting the results from the test directly back to them, and they get additional money for doing the smear test so it's not a difficult sell." Business Manager

- Engaging with practices:** Good engagement with practices was important to ensure buy-in to the pilot, to identify host practices (in Hammersmith and Fulham and Merton), and to allow the Federation access to cervical screening records (in Hammersmith and Fulham). The way this has been achieved in the three sites include: project leads personally attending practices to talk to them about the pilot; drawing on already-existing relationships to engage with practices; presenting practices with accurate data about their current performance to highlight the potential for the intervention to improve their performance; and, in Wandsworth, enabling practices to make their own decisions about whether to enrol, how many clinics to hold, when and so on, with this autonomy making it as easy as possible for the practices.
- Clinical leads to drive implementation:** RM Partners noted the importance of having a strong team in place and pointed to having a clinical lead helping to drive the project forward as a key learning. For example, in Hammersmith and Fulham a clinical lead was able to push implementation forwards. Similarly, in Wandsworth the project lead is a nurse who already has good networks among the practice nurses. This meant she was better able to 'sell' the project and to anticipate where issues may arise. In Merton a well-respected nurse helped to document the process to be followed, which sped up implementation, albeit she was not the project lead.

"I know every nurse at every practice so for the project to come to me has been relevant... I can easily sell the project to them because I know them." Lead Nurse

- Standardising the rate of pay:** In Wandsworth, a standard rate of pay per hour was implemented at a fairly high level; this was implemented by the CCG rather than a change brought about by the pilot itself. This proved to be popular as it meant a practice utilising a more highly qualified nurse could still cover its costs. Practices did not request payment to cover administrative costs or overheads, possibly partly as a result of this high standard payment.
- Promoting the service:** The service is promoted in a number of ways in each area, and participants in the interviews reflected that it is worth carrying out promotional activities as early in the project implementation as possible. In Hammersmith and Fulham, RM Partners and the Federation collaborated on a video publicising the service and encouraging women to book an appointment, which has been published on Facebook, Instagram and GP practice screens. An edited video has also been used in Wandsworth and Merton. Posters have also been developed, and support offered to practices to advertise the service on their websites. In Merton, the service is featured periodically on roller-blind adverts, and pamphlets have been provided in a number of languages.
- Make culturally appropriate adjustments:** Staff at two sites discussed ways they had been targeting marginalised groups in their area. In Hammersmith and Fulham the funding has been used to engage with communities that have specific communications challenges around cervical screening, such as the Somali community. This has

enabled the Federation to develop culturally appropriate messages. In addition, when calling women to talk to them about cervical screening, contact numbers are sometimes for male family members where women do not own their own phone. The team is working with the voluntary sector to explore other ways to engage these women and understand means of increasing screening uptake. Similarly, in Merton, wording has been developed for particular cultures where cervical screening may not be offered, and the Federation offers a dedicated phone number, so women can contact a central team to book a smear anonymously rather than contacting their own practice.

- **Days and times of clinics:** Both Federations in Hammersmith and Fulham and Merton have been monitoring appointment data to identify which days and times of day are most popular with women, and amending their clinic times appropriately. In Wandsworth and Merton, Saturday morning clinics were identified as being particularly busy, while initial analysis of appointment data in Hammersmith and Fulham showed that early morning clinics and the morning slots of day-long clinics are most popular, followed by weekend appointments. However, Hammersmith and Fulham GP Federation noted that it is important to offer women a range of appointment times (morning, daytime and evening, including at the weekends) so it was suggested that under-utilised slots will continue to be offered in some cases.
- **Extended appointment times:** Wandsworth GP Federation advocate specifying a 15-minute appointment for a cervical smear to give the nurse time to talk through the screening and why it is important, and explain the results process fully. It was thought that this had a positive impact on patient experience and was particularly valuable for women undergoing screening for the first time.
- **Reserving clinic slots of cervical smears:** Ensuring the clinics are reserved for cervical smears only: in Wandsworth it has been important to reiterate to practices that the appointment can only be used for screening and not for additional health concerns, although this is not possible to monitor.

10.2 Outcomes and impact

The outcomes the cervical screening project aimed to achieve are: earlier diagnosis; improved cancer staging; reduced health inequalities; increased screening uptake and more informed patients. This was anticipated to have impacts for overall and one-year survival rates and improved patient experience. RM Partners did not set KPIs for the project, but each Federation has monitored the number of women contacted and the number of patients attending an appointment in one of the clinics for screening.

Across the three pilots, a total of 1,878 cervical screening tests have been completed within the clinics. In the Hammersmith and Fulham and Wandsworth GP Federations, 8,250 patients have been contacted to invite them for screening (data are not available for Merton). A breakdown by pilot is provided in table 10.1.

Table 10.1: Cervical screening activity data

	Hammersmith and Fulham (April 2018–February 2019)	Merton (July 2018–February 2019)	Wandsworth (October 2018–January 2019)	TOTAL
Total number of patients contacted	6,486	N/A	1,764	8,250
Total number of patients attending	781	478	619	1,878

When looking at the numbers of women attending for a screening test each month, in both Hammersmith and Fulham and Merton, numbers increased month by month from initial implementation as the new clinics embedded. This same pattern was not seen in Wandsworth where numbers have so far fluctuated by month since inception.

Hammersmith and Fulham GP Federation's February 2019 QOF data shows that, of the 26 practices participating in the pilot, half (13 practices) had improved their cervical screening performance, including two that improved by over 10% and another two by over 15%. This cannot necessarily be fully attributed to the cervical screening project. Of the patients seen for cervical screening, 42 patients had positive results; 26 patients had borderline cell changes, with 16 patients testing positive with HPV and referred to colposcopy; 1 patient was referred directly to Gynaecology (with cancer of the uterus).

Due to the later implementation in Merton and Wandsworth and the delay in Open Exeter data, it is not yet possible to see the impact of the pilot on screening uptake in those two pilots – i.e. whether the clinics have reached additional women for screening, and not just those who would have attended anyway at some point. Even if that is the case though, one lead notes that fulfilling those appointments through the clinic opens up practice capacity elsewhere. In addition, all pilots are positive about how the service extends their reach.

"We're supporting them [practices] in delivery of care for people who they haven't been able to reach or provide a service to because they've been unable to recruit practice nurses." Director of Operations

Information about the impact of the project on health inequalities is also not available. Steps have been taken to advertise the service to hard to reach groups of women, and to ensure the pilots are culturally appropriate. However, in Wandsworth for example, it is feasible that the approach of proactively contacting those who are due or have not attended for screening rather than focusing on a specific group, means the pilot here is not necessarily impacting on hard to reach groups.

Some potential outcomes are also less tangible or measurable. For example, the work being undertaken to promote cervical screening to specific groups within the population (such as work with the Somali community in Hammersmith and Fulham) may contribute to cultural change in those communities that cannot be easily measured. It may also lead to an increase in screening uptake that cannot be monitored via activity data, as some women could simply book an appointment at their own practice's existing service.

However, all three Federations report a positive impact on patient experience, as measured via surveys of women attending for screening. For example, Federations reported women being satisfied with the convenience of the clinics (location and/or the extended hours) and positive comments about the nurse, for example in terms of being friendly, professional, not rushing, and putting the patient at ease.

"Patients have been really delighted about the fact they've managed to come in at 7.30 at night... the feedback from the patients who have used the service seem very positive, we haven't had any negative complaints... the patients also write personal comments like 'the nurse explained everything really fully, I felt very comfortable, I didn't feel rushed'." Lead Nurse

10.3 Next steps for the intervention

All three GP Federations report that the project is straightforward to administer now the clinics are operational. It has been possible to minimise administration costs, and the processes are also simple for practices. As noted previously, the benefits for practices were clear, with the possibility of having support, funded by RM Partners, that would hopefully lead to an increase in their QOF payments.

The cervical screening project will continue under the next round of Transformation Funding, with the ambition that extended clinics will be offered to as many areas as possible across the whole patch.

11 Marginalised groups

Chapter summary

The aim of this project is to increase cancer screening among marginalised groups in Kingston, largely through community engagement.

This project is being led by a community development worker working in the Royal Borough of Kingston who has been in post since April 2018. As of March 2019, the project has engaged with over 600 people from marginalised groups in Kingston.

Community engagement work has been used to raise awareness of cancer screening services among marginalised groups, such as refugees, people with learning disabilities and people with limited English, identify the barriers to screening that might exist among these groups, and understand what might help to address these barriers. The project has involved a range of activities, including organising screening awareness sessions, creating screening information materials and hosting an online chat function to provide screening information.

This community engagement work identified that a key barrier to screening participation was language. To tackle this, the community development worker has worked with GP practices to improve their communications to patients whose first language is not English e.g. by providing translated appointment letters and screening information. As of March 2019, 400 people have been contacted by letter in their own language from four different practices.

The community engagement activities will continue in their current form for the next 12 months. During this time, there will be a continued focus on trying to ensure the project's sustainability by creating more strategic partnerships with local organisations.

The screening in marginalised groups project was set up to improve GP registration and increase cancer screening among marginalised groups in West London, largely through community engagement. The project was born from a recognition that marginalised groups face difficulties in relation to cancer screening and diagnosis, due to a range of factors including low GP registration and language barriers.

The project was delivered in Kingston, which has a large population of refugees, eastern Europeans, Koreans and other marginalised groups. The project aimed to first identify the specific needs of these different marginalised groups, and then target primary care screening services to improve uptake.

As part of the evaluation, interviews were carried out with the community development worker in the Royal Borough of Kingston and the Assistant Director of Public Heath in Kingston (and programme lead) in October 2018 and March 2019.

11.1 Implementation of the Marginalised groups project

This project is being led by a community development worker working in the Royal Borough of Kingston who has been in post since April 2018. As of March 2019, the project has engaged with over 600 people (611) from marginalised groups in Kingston.

This project began in January 2018 with the recruitment of a full-time community development worker. The decision was made early on to focus on improving screening participation, rather than GP registration, that had already been a focus in Kingston.

Community engagement work has been used to raise awareness of cancer screening services among marginalised groups, identify the barriers to screening that might exist among these groups, and understand what might help to address these barriers.

The community worker has utilised the borough's existing connections with local charities and community organisations to engage with different communities, including refugees, people who are homeless or in recovery, Gypsy and traveller groups, people with learning disabilities and other BME or faith groups. The project has involved a range of activities, all carried out by the community development worker. They include:

- **Organising screening awareness sessions** targeting specific groups, for example, engaging with the leader of a community of older Korean people who have little English and virtually no engagement with local services, to organise a screening awareness session with appropriate resources and help from local Korean advocates.
- **Presenting at pre-existing events**, for example, the project distributed screening awareness materials to residents at an 'Estate Fun Day', met with HR professionals working with the largest employer of migrants in Kingston who agreed to include cancer screening on the agenda for internal health information sessions, and delivered a screening awareness session to vulnerable adults – some of whom were homeless or in recovery – at a Health Improvement Day.
- **Engaging with GPs and practice managers** at primary care forum events to explain and publicise the project, as well as one-to-one meetings with practice managers to scope out future collaboration opportunities, such as working with them to provide translated screening materials to patients.
- **Creating information materials** for specific marginalised groups. For example, drafting screening information to be included in a newsletter for people with learning disabilities, posting information on a website with high levels of subscription among Gypsy and Travellers groups, or creating posters with screening information targeted at the Korean population and placed in Korean shops on Kingston high street. More widely, information materials were included in school newsletters, in libraries and community noticeboards.
- **Moderating group and one-to-one discussions** with individuals to understand the barriers to screening. These provided useful insight which could then be used in future engagement work. For example, due to low levels of literacy within the Gypsy and Traveller community, orally providing information about cancer screening services may be more appropriate than providing written information.
- **Hosting an online chat function** on the project's Facebook page to provide information via automated responses to users, for example, about the location of screening services, how to contact them, and eligibility criteria for screening. A key challenge to this work was ensuring sufficient resource to keep the function up to date.

A CRUK initiative to set up 'community champions' was piloted whereby volunteers from marginalised groups were upskilled in order to promote screening within their community. However, this initiative was not continued because of a lack of engagement, and it was deemed to rely too heavily on people volunteering their own time.

This community engagement work identified that a key barrier to screening participation was language. To tackle this the community development worker has worked with GP practices to improve their communications to patients whose first language is not English. This has involved analysing GP patient records in five GP practices to identify patients who have not responded to screening invitations, and determine any factors that may have limited their ability to respond to these invitations (e.g. age, language, disability). This information has then been used to identify where invitations may need to be translated for those where language is a barrier. As of March 2019, 400 people have been contacted by letter in their own language from four different practices.

The primary resource required for this project is time. The community development worker has been key in driving the successes of the project, with support from a line manager - the Assistant Director of Public Health in Kingston, who has expertise and experience in working with marginalised groups in the area. Identifying and engaging with various marginalised groups, as well as creating relevant materials has been time intensive.

The project also requires support and expertise from the Clinical Commissioning Group (CCG) and RM Partners, who have been involved in steering group meetings and regular catch ups, as well as being available to answer queries about information governance or clinical matters required for some of the activities outlined above.

11.1.1 Implementation lessons

This pilot has relied heavily on the appointment of an individual with dedicated time, and the right skill set which includes being extremely organised, motivated and personable, with the ability to engage with wide-ranging groups of people and communities. Other lessons for the implementation of the project include:

- **Utilising the council's existing contacts and events:** The council's existing community development team (in place since 2008) has been key in facilitating collaboration with existing community organisations and projects. The community development worker has been able to utilise these existing contacts. For example, attending events organised by a group of Korean elders, to provide screening information. The community development worker said this had allowed him to be more efficient in approaching organisations and collaborating with them.

"Being positioned among the community development team has been a key lever in getting 'in' with certain organisations. [This was] the biggest first step and [it has] all grown from there." Community development worker

- **Making use of Kingston CCG's and RM Partners' leverage and expertise to access primary care:** Both the community development worker and the Assistant Director of Public Health were clear that working closely with the CCG and RM Partners has also helped them to make progress with the project. The CCG has been able to facilitate engagement with colleagues in primary care, for example, through primary care forum events. RM Partners also supported access to primary care e.g. advising on which documents are necessary to grant access to GP records. This was seen to be crucial given that the community development worker had limited experience working directly with primary care.

"[RM Partners] has been really on it with any challenges [we have had] ... unlocking doors, sharing information and [being] really clear about what else is going on in London." Assistant Director of Public Health

Reflecting on the diversity and complexity of primary care governance, the community development worker and the Assistant Director of Public Health said that it would have been helpful to have a better understanding of

service delivery in the local area before starting work with GPs. In the future, this could be something that the CCG and/or RM Partners could help with.

"[It would have been helpful to] map out service delivery before starting to understand everyone's role and interplay between organisations and services." Assistant Director of Public Health

- **Focussing on longer-term strategic partnerships:** In the first six months of the project, the community development worker identified that the longevity of the project and the potential for impact depended on establishing strategic partnerships, as opposed to working with organisations on an ad hoc basis. Since then, this has been a focus of the project. For example, organising screening training for frontline workers, such as a Syrian Refugee Resettlement scheme caseworker, who can then use their knowledge to disseminate information to their clients. This is a key learning from the pilot and should be considered if the project is to be replicated elsewhere.

11.2 Outcomes and impact

As of March 2019, the project has engaged with over 600 people (611) from marginalised groups in Kingston and 400 people have been contacted by letter in their own language from four different practices. Due to the nature of this community engagement work, it is not possible to measure the impact of this project on screening coverage.

The community development worker collected some feedback on the engagement activities to gauge how much they learnt at the session, likeliness of screening and likeliness to speak to others who are eligible for screening. The feedback has been very positive about experiences and intention to screen. 297 attendees completed feedback forms at a range of engagement events between February 2018 and April 2019. As a result of attending one of the community engagement events, over nine in ten (96%) said they knew more about cancer; a similar proportion (92%) said they understood the importance of, and felt confident enough to advocate screening to friends and family; and over seven in ten (74%) said they were more likely to engage with screening services, which is particularly encouraging as a similar proportion (68%) said they had not been screened before.

The project is generating some valuable lessons in engaging marginalised groups and community engagement work. For example, due to low levels of literacy within the Gypsy and Traveller community, orally providing information about cancer screening services may be more appropriate than providing written information. Additionally, the project has generated learnings around attitudes towards screening and healthcare in general, for example some people disagree with screening and rely on prayer for health protection. In terms of people with learning disabilities, the engagement work identified a low level of engagement from health professionals with regard to completing Health Checks, of which cancer screening form a section. The community development worker has been in to RM Partners to share learnings from the project, which is being used to inform how other projects are targeting marginalised groups.

11.3 Next steps for the intervention

The community engagement activities will continue in their current form for the next 12 months. During this time, there will be a continued focus on trying to ensure the project's sustainability by creating more strategic partnerships with local organisations, something which has developed steadily since the project's inception. Part of this will involve engaging more with frontline workers, e.g. carers and community workers, to inform them about screening so they can encourage the people they engage with to use these services.

Currently the process of gaining access to GP records, identifying patients who have not responded to screening invitations and sending out additional materials has been very time consuming for one individual to undertake. Therefore,

the community development worker is exploring the possibility of involving Community Links (who have been delivering RM Partners' Bowel Screening project, making use of their Health Facilitators who speak multiple languages). The intention is that they assist this pilot by using GP records to contact patients over the phone who have not responded to screening invitations in a range of languages.

It was suggested that the project could be replicated in other areas given that a lot of the materials, such as translated posters, newsletter and noticeboard content and easy-read screening information have already been created and the engagement events have not incurred a high cost. Additionally, the learnings from this project, in terms of the barriers to healthcare among marginalised groups, are applicable across Boroughs with diverse populations.

12 Low Dose CT Case Finding (Lung)

Chapter summary

Lung cancer is the most common cause of death by cancer in the UK⁴³; and late presentation and late stage diagnosis causes poor cancer survival outcomes. Previous studies show that a low dose CT benefits a 20% decrease in lung cancer mortality and 7% overall mortality⁴⁴. The Low Dose CT Case Finding project aims to diagnose patients with lung cancer earlier by identifying the population at increased risk of lung cancer, and then inviting them for a Lung Health Check and where eligible, a low dose CT scan in an accessible and convenient place.

The pilot is being delivered by the Royal Brompton and Harefield NHS Foundation Trust, and two models were tested: in Hammersmith and Fulham Clinical Commissioning Group (CCG) patients are invited to attend a Lung Health Check at the Royal Brompton Hospital, and in Hillingdon CCG patients are invited to a Lung Health Check at a mobile CT scanner located in a supermarket carpark.

Between August 2018 and March 2019 over 8,000 patients across the two sites have been invited for a Lung Health Check – almost double the target set by the project at its inception. Over 1,700 patients have undergone a Lung Health Check and over 1,100 patients have undergone a CT scan (against a minimum target of 1,000 patients).

Implementation of the project has generated a number of valuable lessons including: ensuring clearly defined leadership and operational management of the Lung Health Checks so that the day-to-day delivery of the project can be closely managed; ensuring there is adequate lead-in time to establish information governance processes and agreements; and considerations for delivering this service in a mobile setting. Targeted Lung Health Checks are being piloted nationally by NHS England across ten different sites, and learning from RM Partners' pilot has been shared with NHS England to support the delivery across these sites.

As the project is still in its early stages, outcome data are not yet available, though staff were positive about the impact of screening patients on the early diagnosis of lung cancer. It has not been possible to carry out an economic evaluation of this project at present; the pilot is a two-year project and, therefore, full one year follow-up outcomes would not be expected until the end of the project. However, economic evaluations of other Lung Health Check/ Low Dose Lung CT projects both nationally and internationally suggest that this intervention has the potential to be cost effective. A framework for evaluating Low Dose CT (Lung) Case Finding has been developed to ensure that economic analysis can be carried out when more robust costs and outcome data are available.

The Low Dose CT Case Finding project aims to diagnose patients with lung cancer earlier by identifying the population at increased risk of lung cancer, and then inviting them for a Lung Health Check and where eligible, a low dose CT scan in an accessible and convenient place. Lung cancer is the most common cause of death by cancer in the UK⁴⁵; and late presentation and late stage diagnosis causes poor cancer survival outcomes. Previous studies show that low dose CT

⁴³ https://www.cancerresearchuk.org/sites/default/files/state_of_the_nation_apr_2018_v2_0.pdf

⁴⁴ <https://www.nejm.org/doi/pdf/10.1056/NEJMoa1102873?articleTools=true>

⁴⁵ ibid

screening benefits a 20% decrease in lung cancer mortality and 7% overall mortality⁴⁶. Low dose CT screening has been piloted in other sites across England including the Liverpool Healthy Lung project⁴⁷, Manchester Lung Health Check pilot⁴⁸, the Yorkshire Lung Screening Trial⁴⁹, and through the University College London Hospital Lung Screen Uptake trial⁵⁰. This project aimed to build on this evidence base.

The project is being delivered across two CCGs (Hammersmith and Fulham and Hillingdon) in West London and provided by the Royal Brompton and Harefield NHS Foundation Trust: Hammersmith and Fulham which has the highest lung cancer incidence and mortality across West London, and Hillingdon which has the lowest one-year survival rate for lung cancer in West London. The pilot sought to compare a fixed scanner located at Royal Brompton Hospital for the Hammersmith and Fulham population, and a mobile CT scanner (operating two days a week) in a supermarket carpark (the location of which changed once after three months) for Hillingdon patients. Drawing on learning from other pilots, it is thought that providing the service in the community via the mobile CT unit will encourage patients to attend the Lung Health Check by situating it in a more convenient location and eliminating the perceived gravity of a hospital appointment.

Interviews with a nurse, radiology manager, and senior radiographer (carrying out Lung Health Checks and administrative tasks) were carried out in March and April 2019. This builds on interviews with a clinical fellow, manager within Royal Brompton Hospital and an information governance subject expert carried out in January 2019. Interviews with RM Partner project leads were also carried out in October 2018 and April 2019. Two patients who have experienced the low dose pathway were also interviewed.

12.1 Implementation of Low Dose CT (Lung)

As of March 2019, the project is fully up and running after significant delays of between five to seven months. The Lung Health Check team started inviting patients from Hammersmith and Fulham CCG to attend a Lung Health Check in August 2018; Hillingdon patients were invited from October 2018.

The project is delivered through the following steps:

- **Identifying the target patient group:** Once information governance requirements have been agreed (see below for more details), GP practice data is shared with the North East London Commissioning Support Unit (NEL CSU) which processes the data to identify 'medium risk' patients eligible for the Lung Health Check (smokers or ex-smokers aged between 60-75 years old).
- **Appointment for a Lung Health Check:** An opt-in letter is sent to patients in Hammersmith and Fulham to attend a Lung Health Check appointment with a nurse at the Royal Brompton Hospital, and patients in Hillingdon to the mobile unit in a supermarket carpark. At the appointment, patients are asked a series of questions to assess their lung health and undergo tests on their lung health including oxygen saturations and spirometry. The Prostate, Lung, Colorectal and Ovarian (PLCO2012) and the Liverpool Lung Project (LLP2) cancer risk models are used to calculate risk scores of having cancer for a patient based on the information gathered during the Lung Health Check.

⁴⁶ [ibid](#)

⁴⁷ https://thorax.bmjjournals.org/content/71/Suppl_3/A138

⁴⁸ <http://cancervanguard.nhs.uk/wp-content/uploads/2017/04/Macmillan-lung-health-check-pilot-Manchester.pdf>

⁴⁹ <https://yorkshirecancerresearch.org.uk/news/mobile-lung-health-checks-launched-in-leeds>

⁵⁰ <https://www.ucl.ac.uk/iehc/research/behavioural-science-health/research/cancer-communication-screening/lung-screen-uptake-trial>

Two potential actions may be taken, depending on the outcome of the Lung Health Check:

- **Same-day CT scan** if the patient has met the PCLO2012 and/or LLP2 threshold. Scans conducted in-hospital at the Royal Brompton site are reported within the existing hospital infrastructure, whilst images from the mobile unit are sent (via 'cloud'⁵¹) to the Royal Brompton Hospital for analysis. If there is a suspicion of cancer, patients are then triaged for further investigations. Patients may also be referred on to other services if the CT scan identifies a non-lung cancer related health concern (e.g. heart abnormality) that needs further investigation.
- **No CT scan** if the patient is below the threshold or meets the exclusion criteria. Patients and GPs will receive the results of their Lung Health Check. If a patient is identified as having a 'red flag' condition (e.g. COPD) they will be followed up by the chest clinic at the Royal Brompton and directed for further investigations and/or treatment. A patient may also be referred back to their GP with recommendations for further monitoring (e.g. referred back to their GP to be given Q-risk score for aortic calcification).

Between August 2018 and March 2019 the project invited over 8,000 patients across the two sites for a Lung Health Check. Over 1,700 patients underwent a Lung Health Check and over 1,100 patients had a CT scan. The project has exceeded its target number of patients invited to a Lung Health Check (set at 5,000) and has met the target number of patients receiving a CT scan (1,145 scans vs. a minimum target of 1,000).

As table 12.1 shows, more patients have been through the Hammersmith and Fulham site compared to the Hillingdon site. This is as expected as there were more patients in the population (due to the size of participating GP practices) and the number of patients meeting the risk criteria.

Table 12.1: Activity data for Low Dose CT Lung (August 2018 – March 2019)

KPI	Target	CCG		
		Hammersmith and Fulham	Hillingdon	Total
Number of patients invited for Lung Health Check	5,000	5,135	3,231	8,366
Number of patients attending a Lung Health Check	-	1,047	702	1,749
Number of patients receiving CT scan	Minimum of 1,000	654	491	1,145

The data show that 20.4% of patients in Hammersmith and Fulham attended their Lung Health Check, compared to a slightly higher proportion of patients (21.7%) at the mobile unit in Hillingdon. The data also show a higher proportion of patients attending the Hillingdon site required a CT scan (69.9%) compared to the Hammersmith and Fulham site (62.5%).

To implement the project, RM Partners sent out expressions of interest requests to every GP practice in the two participating CCGs. Around 20 GP practices across the two boroughs responded positively to the invitation and committed to working with the project. Considerable time and effort was spent to ensure practices were satisfied with the Information Governance (IG) arrangements (described in more detail below) and one of the practices pulled out where agreement on IG could not be met. To reassure GPs, it helped to clearly explain the rationale for the project in a cover letter and phone call with RM Partners – specifically that the project is supporting practices to improve diagnosis of lung cancer and work with their data on their behalf. RM Partners also gave GP practices flyers to promote the Lung Health Check to patients, linked with community pharmacies to promote the programme, and liaised with the local supermarket to host the mobile unit.

⁵¹ Online data storage software.

12.1.2 Implementation lessons

When setting up the pilot, RM Partners encountered various delays which have generated valuable learning for the wider roll-out of the Low Dose CT (Lung) project. These include challenges around leadership and management to oversee the day-to-day delivery of the project, optimising IT to deliver efficient project administration, finalising IG arrangements for the project, and a number of challenges relating specifically to setting up a mobile CT scanner – each of which are discussed below:

Senior operational oversight of the project on the ground is important to oversee a multi-disciplinary team: the initial design of the project anticipated that two Band 7 nurses would lead the day-to-day management of the Lung Health Checks, with a team to support them. However, due to a lack of suitable candidates at Band 7, the project is being delivered by a mixture of roles: two Band 6 nurses, a Senior House Officer (SHO), a radiographer, clinical fellow, healthcare assistant and two administrators. However, the health check team has lacked a senior operational lead to coordinate the different aspects of the project on the ground. This necessitated more hands-on project management from the RM Partners team and the clinical fellow to improve administrative processes, including patient follow-up and systematic data recording and management. Two members of the project team reflected that, ideally, they would move to a structure which reflects that of a hospital ward, with a senior nurse leading and managing procedures, and nurses delivering the Health Checks as originally intended.

Management of the considerable administrative tasks is required, through a fully embedded administration team, that has sufficient oversight: the project team reported the administrative tasks associated with the project are extensive and include: writing to patients to invite them to a Lung Health Check and following up with subsequent letters and a phone call, logging patient activity along the project pathway (such as stage of recruitment, whether results have been communicated), and feeding back results. Though an admin team was in place from the beginning of the project, they lacked operational management to oversee the considerable administrative demands of implementing and delivering the pathway.

Full-time staff would be preferable, with long lead-in times to account for recruitment of these roles: the project team also reflected on challenges around staffing the project team. Recruiting staff to the project took longer than anticipated and contributed to delays at the beginning of the pilot. Staff were then brought in to support the team through ‘informal arrangements between departments’ rather than a formal agreement or contract stating the terms and time allocated to the project. This meant that some staff subsequently left the project early whilst it took others a longer period of time to settle into their roles than might be preferred. Ideally, the project would contract staff to support it full-time. The team of radiographers who conduct the CT scans at the mobile unit, supplied by Alliance Medical, also rotate their personnel which can limit the familiarity staff are able to gain through working on the project consistently.

Optimise the patient invitation process – factoring in resource and time to follow-up with patients: The original intention was to duplicate the Manchester/Liverpool opt-in process by sending patients two letters inviting them for a Lung Health Check, following-up non-responders with a phone call. Where possible appointments are confirmed by text message (if booked on the patient administration system over 7 days ahead of the appointment). Staff reported difficulties in delivering this consistently due to staffing and operational challenges. This is likely to have contributed to lower than expected rates of opt-in for a Lung Health Check (20.9% uptake – whereas other sites are between 30 and 40%). To overcome these challenges, they have trialled different approaches to engaging patients, including double booking Lung Health Check appointments. Towards the latter part of the pilot, the project team assigned a dedicated administrator to follow-up patients via telephone (over sending a second follow-up letter).

Considerable lead-in times need to be factored in to account for information governance requirements of the project. **Conducting an Impact Assessment early on to identify the necessary steps has helped:** Considerable time and effort was required to ensure the project was following appropriate IG standards. Patient data needs to flow from practices to the CSU where it is analysed to identify eligible patients for the Health Check. This data is then sent to the Royal Brompton Hospital so they can invite patients for a Health Check appointment. IG agreements needed to be in place before this could happen. However, a number of challenges caused severe delays to this process including: uncertainty around where the data for the project would come from (the CCG or directly from GP practices); the number of organisations engaged in the data processing (IG leads within each of the two CCGs, as well as GP leads for the 20 GP practices involved, meant there were a lot of people to engage in the process); and different sign-off processes for the project at different organisations (CCG level, CCG cluster level etc). This meant RM Partners had to spend considerable time, over a sizeable period of time, attending meetings at CCG and CCG cluster level, and following up with paperwork. To overcome some of these challenges, an IG subject matter expert from NEL CSU was engaged to advise on a number of RM Partners projects, and oversaw the IG requirements for Low Dose CT (Lung). Following a Data Protection Impact Assessment (DPIA), Data Processing Agreements (DPA) or Deeds were put in place between GP practices taking part in the first phase of roll-out and NEL CSU to allow practices to send data to the CSU and an overarching agreement was put in place between the CSU and the Royal Brompton so that they could send out letters and invite patients to a Health Check.

Factoring in a sufficient lead-in time to develop automated patient letters that are fully quality assured and safety netted: A focus of the project team has been developing a system to automate outcome letters. This was introduced to ensure letters reflected clinical protocol and to be a more efficient way of informing patients and GPs of the results, rather than writing individual letters. It is done using an InfoFlex database, where patient outcomes and follow-ups are coded, and then populated onto letter templates for both the patient and the GP. Because of the number of different outcomes, or combinations of outcomes, that can be identified through the health check, it has taken more time and effort to ensure these letters are accurate (requiring clinical review of letters where some interpretation of results is required or where potentially sensitive issues are being mentioned in a letter). Time for a clinical fellow/senior member of the team to review the letters has needed to be built in to ensure this happens systematically. Over the course of the project, they have managed to streamline this process, improving the consistency of the data being recorded. Though it took considerable time, the clinical fellow and RM Partner project lead were confident that this time investment upfront to optimise the letters was worthwhile.

Delivery of the project in a mobile unit, compared to in-hospital, has identified a number of challenges when working remotely:

- **The need to optimise IT to share CT scans:** Use of the mobile unit depends heavily on the ability to transmit patient data to the Royal Brompton (for example, to send scans back to the hospital to be reviewed by the radiologist). This has been technically challenging because it requires different IT systems to be linked together and the provision of an internet connection to a mobile unit. The project team noted that while they were able to set up this infrastructure, it has not always worked to plan. The system had been set up to automatically share images from CT scans via a 'cloud'; however, the system has occasionally not worked and so they have been required to use the contingency at times – where images are downloaded to a disk and transported physically to the hospital – to later be uploaded for review by the radiologist.
- **Practical issues,** like lighting (e.g. a case of a blown lightbulb) and waste management (e.g. where and how to safely dispose of rubbish).
- **No onsite support available** as would be expected within a hospital setting (e.g. an IT technician).

- **Busy waiting rooms** – this was overcome by adding more chairs for patients but depending on when patients arrived, it was reported that some have had to wait outside in the carpark.
- **Difficulty for patients to find the mobile unit:** it was reported that the second location of the mobile unit (the mobile unit was first setup in a Tesco carpark before moving to a Sainsbury's carpark as the project only had permission to use the Tesco car park for three months) was also secluded and more difficult for patients to locate (compared to a hospital building).
- A more secluded location was reported to lack a **sufficient level of security** for staff and patients (e.g. staff reported feeling isolated).

These issues were difficult to anticipate and could only be identified through undertaking the project. Staff reflected on the importance of keeping these practical considerations in mind when identifying suitable locations to host the mobile unit.

Despite these challenges, staff reflected that **the mobile unit was beneficial to promoting the Lung Health Check** in the community, generating interest from members of the public both eligible and ineligible for the Lung Health Check. Staff felt that the informal nature of the mobile unit, said to be thought of as 'less serious' than a general practice or hospital setting, helped overcome some of the potential barriers patients may feel about accessing healthcare services targeting smokers. That said, with the data available as of April 2019, it is not possible to conclude that there is a preference among patients to attend a Lung Health Check at a mobile unit as opposed to in hospital.

The importance of having a coherent and consistent approach to collecting and storing data from the outset of the project: The patient administrative system, Lorenzo, which is used for keeping a record of patient information and appointments does not synchronise with InfoFlex, the cancer information system and project database. This requires the manual collection of data in Excel to pull it all together. However, during the early stages of the project, there were some inconsistencies in recording data in Excel which resulted in appointment slots being double booked for patients.

Incrementally scaling up patient invitations to ensure there is capacity to meet demand: Towards the end of the pilot, the project team began to invite higher numbers of patients for a Lung Health Check to ensure they achieved the project targets. This resulted in an increase in workload for the project team and on some occasions, the double booking of appointments, to ensure they reached the project targets in the remaining timeframe. Ultimately, staff reflected on the importance of incrementally scaling up the patient invitations as the project developed to enable issues to be resolved prior to increases in patient demand.

12.2 Outcomes and impact

It is too early in the project implementation to comment on the impact the pilot is having on patient outcomes. However anecdotally staff were confident that the Case Finding would lead to the identification of early stage lung cancers amongst the patient population in receipt of a scan. This would have positive implications for treatment outcomes and survival rates. Additionally, staff believed that the project will have a positive public health impact, raising awareness of lung health and the risks of smoking among the c.8,000 patients who were invited for a Lung Health Check. In terms of clinical outcomes, it was felt that it was too soon to comment on this.

Staff interviewed also reported positive feedback from patients on their experience of the service. Staff reported that the banner posted outside of the mobile unit to advertise the service drew considerable interest from the public, and patients were pleased to be offered a 'free' Lung Health Check. Patients were also reported to be happy about being made aware of the symptoms of lung cancer. The project team were positive about offering this service outside the GP setting. They

felt that the intervention provided access to a service that some patients might not have accessed had it been available via their GP (rather than the mobile unit/hospital site); stigma around smoking and lung health can sometimes mean patients are reluctant to speak openly to their GP about these matters.

12.3 Next steps for the intervention

RM Partners plan to sustain the project in their next round of Transformation Funding. Low Dose Targeted Lung Health Checks are also being piloted nationally by NHS England across ten different sites through the Targeted Lung Health Checks Programme⁵². RM Partners has shared its implementation learning with NHS England, including principles of IG.

⁵² <https://www.england.nhs.uk/2019/02/lung-trucks/>

13 GP Decision Support Tool

Chapter summary

RM Partners trialled C the Signs (a digital decision support tool) in three CCGs to assist GPs and other primary care clinicians in successfully identifying cancer symptoms and referring appropriately in response. Through use of the tool, the intention was to observe an increase in appropriate referrals (which could be reflected in a decline in referral rates) and an increase in conversion rates.

A number of developments to the tool were underway as of March 2019, the most significant of these being its integration with EMIS which will have a number of benefits including the creation of a practice dashboard to track patients, the digitisation of all 2-week-wait referral forms, and the pre-population of consultation notes.

Uptake of the tool has been good – as of March 2019, 322 individual users were registered with C the Signs and 91% of practices across the three Clinical Commissioning Groups (CCGs) were signed up. Having the endorsement of CCG GP Cancer Leads and Macmillan GPs, and the tool's founders being healthcare professionals themselves, has assisted with uptake.

It is not yet possible to comment on the tool's impact on referral rates or conversion rates for the RM Partners' pilot. However, a previous pilot run in the East of England shows encouraging results which are expected to be replicated (or even improved once the tool is integrated with EMIS) in West London. The East of England pilot evidenced no increase in referral rates as a result of the tool (one of the issues raised as a potential barrier to roll-out), an increased cancer detection rate of 6.40% (compared to 0.21% in non-pilot sites in the East of England), and a reduction in emergency admissions.

Going forward, RM Partners plans to roll out the C the Signs tool to at least eight of the 14 CCGs across West London.

C the Signs⁵³ was founded by two healthcare professionals (both doctors, one of whom is a GP) in response to the challenges faced by those working in primary care to successfully identify cancer symptoms and refer appropriately in response. It is a digital tool for use on multiple platforms which can be used to identify which cancer(s) a patient is at risk of and the next appropriate step regarding investigations and referrals. The tool is underpinned by the NG12 guidance, though it can be tailored locally to also draw on regional-specific guidelines and to take account of the referral pathways and investigations available in a local area.

Through use of the tool, the intention is to see an increase in appropriate referrals (which may be reflected in a decline in referral rates) and an increase in conversation rates meaning those working in primary care are better able to identify the symptoms of cancer.

Over 2017/18, C the Signs completed a 12-month pilot with three CCGs where over 2,000 patients were risk assessed in the East of England in partnership with the East of England Cancer Alliance. Building on this, RM Partners decided to trial the tool in West London.

⁵³ <https://cthesigns.co.uk/>

RM Partners has paid the license fee for use of the tool across three CCGs – Wandsworth, Sutton and Merton – though the responsibility for publicising and encouraging uptake of the tool fell to the CCGs involved (alongside support from C the Signs). These CCGs were selected as being areas that expressed an interest in piloting the tool, and where there were known to be highly engaged GP Cancer Leads and Macmillan GPs.

The RM Partners leads, the founders of the tool and three CCG representatives were interviewed in October 2018 and March 2019 to feed into the evaluation.

13.1 Implementation of the GP Decision Support Tool

Following its launch in June 2018, as of March 2019, 322 individual users were registered with C the Signs (the majority of these being in Wandsworth). Practice uptake across the three CCGs has been high – 95% in Merton, 92% in Sutton and 88% in Wandsworth meaning that there are one, two, and five practices yet to sign up respectively across the three areas.

Since C the Signs could not market the tool directly to GP practices, they were reliant on the enthusiasm of the CCG GP Cancer Leads and Macmillan GPs to raise awareness via CCG newsletters, their websites and word of mouth. C the Signs attended a number of locality meetings to present the tool and have used cancer events hosted by the three CCGs as a platform to raise awareness.

Table 13.1: Activity data for the GP Decision Support Tool (as of March 2019)

	Merton CCG	Sutton CCG	Wandsworth CCG	TOTAL
Number of users	81	78	163	322
Practice uptake	95%	92%	88%	91%

In the majority of cases, the tool is being used by doctors – with 82% of users falling into this category. The tool is also being used by others though they make up a much smaller proportion of users: nurse practitioners (four per cent of users), nurses (three per cent), practice managers (three per cent, though a greater proportion are thought to observe use of the tool), and pharmacists (two per cent). The tool has been designed so that individuals can log-in and see a version specifically tailored to their job role – ensuring the language used is relevant to them. As of March 2019, GP and nurse practitioner versions were available, though C the Signs are piloting a version with pharmacists, and have ambitions for the tool to be used among relevant Allied Health Professions.

C the Signs received a sizeable investment from NHS England to progress the tool's development, principally in relation to integrating it with EMIS (and ultimately other primary care systems including SystmOne, Microtest Health and Vision). As of March 2019, the tool remained outside the clinical system, though integration with EMIS was imminent and C the Signs hoped to have an integrated package in practices by May 2019 (with these timeframes subsequently being met). The integrated package will have the following updates:

- **Digitised 2-week-wait referral forms** – referral forms will be pre-populated with information collected through use of the tool. This update will also ensure the most up-to-date referral form is used.
- **Practice dashboard (safety netting)** – this will be used to track patients after they have been referred and should provide hugely valuable data on: which pathways are triggered by use of the tool; which tests are most commonly ordered; referral and cancer detection rates. It is intended that the data generated through this dashboard will be used by secondary care to better assess demand for their services, and to identify which pathways are most effective. In order to create the 'feedback loop' required to track patients' outcomes, some manual data entry will

be required within practices. Given the integrated package is not yet live, it is not known how well populated the dashboard will be, though it is anticipated this manual entry will replace work already undertaken, rather than create additional workload.

- **Pre-populated consultation notes** – consultation notes will be pre-populated (and fully coded) with information collected through the tool and saved into patients' notes.
- **Resource centre** – the tool will have an area with resources provided nationally or by charities which may be of benefit to patients. Additionally, the tool will pull through the appropriate patient information leaflet for GPs to print and give to patients depending on the consultation.
- **CCG noticeboard** – the tool permits local customisation and CCGs will be able to provide relevant notices or updates in a specific section of the tool (for example, to publicise RM Partners' Bowel Screening project).

13.1.2 Implementation lessons

Overall, implementation of the C the Signs tool has gone smoothly with good uptake of the tool, though there have been some unforeseen delays in its development as a result of information governance issues and some initial reservations expressed by a small number of CCGs and practices regarding its use. There are therefore a number of implementation lessons when considering the wider roll-out of the tool:

- **Uptake:** In the main, there has been good uptake of the tool with only a handful of practices yet to make use of it. It is not known why these practices are yet to sign up but some are known to have high numbers of locums which may indicate other priorities are facing these practices. Initially, a small number of CCGs declined involvement in the pilot due to concerns that the tool would lead to an increase in referral rates which would put secondary care under further pressures to respond to elevated demand. The data generated through the East of England pilot (discussed below) should help alleviate these concerns. The CCG representatives interviewed also mentioned small numbers of practice staff initially showing some hesitations about adopting the tool, though these were usually eliminated upon seeing a demonstration of the tool. Uptake of the tool has also been assisted through the endorsement of CCG GP Cancer Leads and Macmillan GPs, and the tool's founders being healthcare professionals themselves, as discussed below.

"There were hesitations initially because people weren't entirely clear about its use and why we needed it, but as soon as they saw live examples, even the more established GPs were very taken aback and impressed." CCG representative

- **Involvement of CCG GP Cancer Leads and Macmillan GPs:** Those interviewed as part of the evaluation felt that the endorsement of the tool by the CCG GP Cancer Leads and Macmillan GPs has been critical in both raising awareness of the tool and securing buy-in to it. Their involvement has both legitimised the tool (by virtue of independent parties giving their backing to it) and helped ensure that the messaging and tool's content has been tailored specifically to local contexts.
- **Developed by healthcare professionals:** It is thought that the founders being healthcare professionals themselves has assisted greatly in GPs' engagement with the tool. This has stemmed from the tool being designed specifically to address GPs' needs, but it has also helped in terms of dissemination and training.

- **Use in consultations:** Some GPs have expressed a reservation about using the tool during consultations with patients – particularly the app version which may feel unprofessional to refer to. C the Signs conducted a focus group with the Cancer Patient Participant Group for the East of England Cancer Alliance which suggested patients do not have these reservations. It found that patients would be happy for GPs to use any type of resource, including an app if it improved early identification and diagnosis. C the Signs monitors usage of the tool by day of the week and time of day – this is to ascertain whether professionals are using the tool during, or outside of, consultations with patients. The data collected so far suggests use of the tool is predominately happening during standard clinic hours and on week days. There is also value in clinicians using the tool after a consultation to confirm the decisions they have made, and thus it can be used as a learning tool.
- **Information governance:** The integration of the tool with EMIS was originally due to happen prior to the end of 2018 though working through the associated information governance requirements has taken longer than expected. This is, in part, due to the sign-off structures in place which has involved C the Signs working principally to agree data governance arrangements with the CSU but subsequently needing to have final sign-off from each of the three CCGs involved, which has taken time.
- **Integration:** C the Signs has principally focused on integrating the tool with EMIS though they are working with other primary care systems to achieve the same aim. These changes have been requested through NHS Digital's GP Systems of Choice Framework and have taken some time to come to fruition. The GP IT Futures Programme will be in place from July 2019 and it hoped this will speed up the process of integration and changes to the primary care systems this necessitates.
- **Training:** One CCG representative interviewed felt C the Signs and RM Partners could use the tool more so as part of GP training – for example to analyse significant events or assist less experienced GPs to build confidence in their decision making.

13.2 Outcomes and impact

Key intended outcomes from the tool are an increase in appropriate referrals (which may be reflected in a decline in referral rates) and an increase in cancer conversion rates. Until integration of the tool happens, it is not possible to comment on the tool's impact on referral rates and conversation rates. However, data available from C the Signs' East of England pilot provides an indication of the anticipated outcomes and impacts for the three CCGs working with RM Partners.

As shown in table 13.2, the East of England pilot data showed:

- There was no statistically significant increase in 2-week-wait referrals made in the pilot sites compared to non-pilot sites in the East of England or with NHS England as a whole.
- Cancer detection rates through primary care (not including patients diagnosed through screening or other methods) improved by 6.40% in the pilot sites compared to 0.21% improvement in detection rates in the non-pilot sites in the East of England, and 0.59% improvement in detection rates in the rest of NHS England.
- A greater reduction in emergency presentations was observed in the pilot sites compared to the non-pilot sites in the East of England and the NHS England average.

Based on the increase in cancer detection rates within the East of England pilot sites and the absolute numbers of patients detected (reported by PHE), it is thought that 136 extra patients were identified with cancer within the pilot sites and 58 emergency presentations of patients with cancer were prevented. Had the tool been integrated with primary care systems, it is thought these numbers would be even greater given there would have been greater use of the tool across the pilot areas.

Table 13.2: East of England pilot results

	2-week-wait referrals (N)		Cancer detection rates		Emergency presentations	
	2016-17	2017-18	Average yearly improvement between 2013-17	Average yearly improvement between 2016/17 – 2017/18	Average % change 2013-17	Average % change 2017-18
C the Signs pilot sites (3 CCGs)	2,513	2,651	1.28%	6.40%	-0.25%	-7.09%
Non-pilot sites in East of England (17 CCGs)	3,277	3,383	1.68%	0.21%	1.30%	-5.75%
NHS England	3,164	3,263	1.2%	0.59%	-1.09%	-4.49%

In December 2019, PHE will release national data for the time period over which the tool was piloted by RM Partners and Merton, Sutton and Wandsworth CCGs. This will allow for similar analysis to be undertaken to understand the impact of the tool in these areas. It is also hoped that once the tool is integrated and the practice dashboard is fully utilised, it will be quicker to demonstrate impact as there will be less reliance on data provided through PHE.

The full impact of the tool will also be assessed through a follow-up survey of users, scheduled to be conducted in July 2019. C the Signs administered a baseline survey of users looking at factors such as confidence levels in practicing the NG12 guidance and levels of uncertainty about whether patients require a referral or investigation. By repeating this survey in due course, C the Signs are hoping to demonstrate an improvement in GPs confidence levels and a reduction in the uncertainty surrounding practicing the NG12 guidelines. Some similar survey data is available from the East of England pilot which showed:

- 91% of users thought C the Signs benefitted patients⁵⁴
- 86% of users were more confident in knowing when to organise a test, investigation or referral
- 93% said C the Signs improves the early identification of cancer

It is hoped that the tool will provide CCGs and Trusts with outcomes data more quickly than traditional sources to assist in making commissioning and service planning decisions. There is some evidence to suggest this is happening – with data on pathway utilisation being discussed by the three West London CCGs at monthly steering group meetings. As a result of such discussions, St George's are planning to open up capacity for some pathways based on the data generated through the pilot thus far.

⁵⁴ Sample size unknown

13.3 Next steps for the intervention

Going forward, RM Partners plans to roll out the C the Signs tool to at least eight of the 14 CCGs across West London. There will be a phased roll-out across the CCGs to allow the tool to be locally configured and for accompanying training to take place. Not all of the CCGs make use of EMIS and thus some practices will not have access to the integrated version of the tool until greater progress is made regarding integration with SystmOne and other systems⁵⁵.

C the Signs have been talking to other Alliances and CCGs about extending the pilot to different locations, and a number of Alliances and CCGs will be doing so.

Further developments of the tool are planned by C the Signs, including adding prompts to referral forms to encourage patient compliance (such as making sure patients have been told they are on a fast-track pathway and need to be available to attend a referral appointment within two weeks), and sending reminder texts to patients with their appointment details.

C the Signs are also presently developing a tool – C my Signs – which is a patient facing version of the tool. The tool is intended to assist in understanding patients' genetic risks of cancer by building a family history which can be used by GPs to refer appropriately (or not as the case may be). It could also be used as a means to encourage screening participation among patients. Whilst not covered by the Transformation Funding secured for 2019/20, RM Partners hopes to secure innovation funding to support the development and piloting of this tool in one CCG.

⁵⁵ Update as of July 2019: C the Signs are progressing with a third-party developer with plans for deployment in Sept-19.

14 GP Education Events

Chapter summary

Six education events were run by Red Whale for GPs, practice nurses and practice pharmacists between June 2018 and March 2019 to assist them in interpreting the NG12 guidance and recognising potential cancer symptoms at an early stage. In total 669 individuals attended these events, exceeding RM Partners' target of 600 attendees. The events were very well received with over 97% rating each of the following aspects as good or excellent: the course content, relevance of the course, the presentations and the accompanying handbook. Both survey and qualitative data reveal a number of examples of how event attendees have done something differently in their GP practice as a result of the training.

It is not possible to conclude whether the event attendees would have paid to access the same training event were it not free of charge. However, the events have proved popular, with places being booked on a first-come-first-served basis within seven days and with interest being expressed in future events.

RM Partners will be funding a further four training events in 2019/20. These events will be very similar in terms of content though RM Partners intends for the content to be more locally tailored and aims to harness the opportunity to raise awareness among practice staff of other initiatives they are funding. Data from two of the events shows that attendance is heavily skewed towards GPs (94%) rather than practice nurses and pharmacists, and that attendance is uneven across the 14 Clinical Commissioning Groups (CCGs) with some far more heavily represented than others. RM Partners may therefore wish to ensure that the publicity ahead of future events seeks to address these imbalances.

RM Partners funded a series of education events aimed at GPs and other practice staff to assist them in interpreting the NG12 guidance and their ability to recognise potential cancer symptoms at an early stage.

RM Partners commissioned Red Whale to run the events, which GPs, practice nurses and practice pharmacists could attend free of charge. The events were day-long, created 'by GPs for GPs' and covered the latest evidence around cancer prevention, screening, diagnosis and treatment, focusing on the whole cancer pathway from prevention to palliative care. Delegates were also provided with a copy of the GP Cancer Handbook and a 12-month free subscription to www.gpcpd.com (a website hosted by Red Whale) upon completion of the course.

Initially RM Partners considered alternative forms of GP education – such as online training courses – but it was felt that GPs and other practice staff were most likely to attend a dedicated training session in person, when they are given (or take) protected time away from their practice.

This project was not considered a 'proof of concept' to provide the data required to support its funding by CCGs, but rather it was felt to be appropriate that RM Partners, as the Cancer Alliance for West London, assisted in the upskilling of primary care professionals in relation to spotting the early signs of cancer and appropriately referring into secondary care.

Feedback from the RM Partners leads, a CCG representative, and two event attendees was sought as part of the evaluation in October 2018 and January 2019.

14.1 Implementation of the GP Education Events

Six events were held between June 2018 and March 2019. The fifth and sixth events were not originally planned but were added given the high demand for places and the availability of additional funding.

RM Partners set a target of 600 GPs, practice nurses and practice pharmacists to attend, which was exceeded with a total of 669 attending these six events. The July event saw a relatively high level of non-attendance on the day, with 34 individuals not attending despite signing up. To counter this, publicity related to all subsequent events made it clear that delegates should give at least 48 hours' notice of cancellation or send another delegate in their place, otherwise the standard course fee of £225 would apply. This messaging appeared to help ensure low drop-out rates for subsequent courses.

Table 14.1: GP Education Events activity data

	Jun-18	Jul-18	Oct-18	Nov-18	Feb-19	Mar-19	TOTAL
Number of event attendees	109	91	128	117	109	115	669

The events were open to all GP practices within North West and South West London, and were held at central locations to avoid limiting attendance from specific areas. Whilst RM Partners funded the events, the responsibility for publicising them sat with the GP Cancer Leads in CCGs. Some CCGs were significantly better represented than others, with particularly high attendance from individuals working within the boundaries of Ealing CCG (17%) and Brent CCG (12%). Merton CCG and Sutton CCG were the least represented with one per cent of all attendees at the February and March events coming from these regions. The extent to which the varying engagement of different CCG Cancer Clinical Leads and Macmillan GPs affected event uptake is not known.

Table 14.2: Attendance by CCG (Feb-19 and March-19)

CCG	%
Ealing CCG	17%
Brent CCG	12%
Hounslow CCG	9%
Harrow CCG	8%
Hillingdon CCG	8%
Wandsworth CCG	8%
Hammersmith CCG	7%
West London CCG	4%
Croydon CCG	4%
Richmond CCG	4%
Central London CCG	3%
Kingston CCG	3%
Merton CCG	1%
Sutton CCG	1%
Other	10%
Unknown	1%

Almost all attendees were GPs (94%) (based on the February and March 2019 events and of those individuals who disclosed their job role). Most often, the GP attendees were salaried (38%) or partners (25%), though some were locums

(19%) or GP registrars (10%). Pharmacists were in the minority, representing one per cent of attendees, and nurses made up three per cent.

14.1.2 Implementation lessons

The implementation of the six events was considered successful, with Red Whale being very familiar with the process of organising and hosting similar events. Indeed, a number of comments from event attendees in the survey data highlighted how well organised the events were. Whilst the implementation was smooth, some considerations for running further events were raised in the evaluation interviews:

- **Appetite for the events:** The events all sold out within seven days on a first-come-first-served basis, and GPs have been inquiring about future events demonstrating the popularity of the offer. Both event attendees interviewed said they would have willingly paid to attend the course, though it can be supposed that individuals were encouraged to attend given it was free of charge. For one of the GPs interviewed, not having to pay meant she would pay to attend Red Whale's general GP Update Course instead.
- **Reaching those most 'in need':** Though the findings are strongly positive about the value delegates get from the events (as discussed below), the general interest and confidence levels in relation to cancer of the event attendees is unknown. It could be theorised that the events attract individuals who are more conscientious regarding their professional development and this should be accounted for in the publicity of future events. Linked to this, the CCG representative interviewed theorised that greater efforts might be required to generate interest in areas without clinical cancer leads or Macmillan GPs.
- **Job roles:** The events were designed for practice nurses and pharmacists to attend alongside GPs, though the latter group made up the vast majority of attendees. Should RM Partners wish for greater attendance from practice nurses and pharmacists, this should be considered in how future events are publicised and targeted.
- **Geographical spread:** The data collected from the February and March events suggests that attendance is not evenly distributed across the different CCGs covered by RM Partners. Data are not available for the other events indicating whether there was a more even distribution of attendance across the different geographies, though this is something for RM Partners to remain alert to, assuming it wants to provide equal access to all.
- **More tailored content:** There was suggestion, from both the CCG representative interviewed and the RM Partners leads, that the content of the course – whilst good – could be tailored more to local contexts and to raise awareness of the other interventions being piloted by RM Partners. As discussed later, the intention is for more tailored content to be provided in future events.

14.2 Outcomes and impact

RM Partners had a number of key performance indicators to assess the impact of the education events. These concerned attendance levels (as discussed above) and the proportion of delegates reporting a positive experience of the event.

Red Whale administered a survey at the end of each event, the results of which can be seen below. Delegates were highly positive about the events with very high proportions rating the course content, relevance, presentation and handbook as either 'good' or 'excellent'. The handbook is particularly well received with over 86% describing it as being 'excellent'.

Table 14.3: Progress against target outcomes⁵⁶

	All events	
	% delegates rating 'good' or 'excellent'	% delegates rating 'excellent'
Course content	99%	72%
Relevance of course	98%	84%
Presentation	97%	76%
Handbook	97%	86%

The surveys also captured many positive verbatim comments complimenting the course with multiple mentions of it being 'good/excellent', 'useful', 'relevant', 'comprehensive' and 'concise/succinct'. A selection of verbatim comments are shown below.

"Makes me realise gaps in my knowledge. So much learnt." Event attendee

"Very good, especially as it's delivered by working GPs." Event attendee

"Very useful recap of knowledge and helpful reminders and new knowledge." Event attendee

"Knowledgeable speakers, useful handbook and practical tools I can use in my day to day practice." Event attendee

"Very relevant... lots to take back to my practice." Event attendee

When asked about the areas attendees felt their confidence had improved the most, a variety of survey responses were given suggesting attendees experienced a diverse set of learning outcomes. There were however a number of repeated learnings which covered: the handling of vague symptoms; the potential significance of high platelets and recurrent UTIs; thrombocytosis; post-treatment management; and palliative care. The two attendees interviewed as part of the evaluation could point towards specific changes they had made to their practice as a result of attending the training. These included: referring to the handbook when reviewing inconclusive blood test results; repeat testing after a UTI to ensure there is no presence of red blood cells in urine; being able to provide more guidance and reassurance to patients around PSA testing; talking a trainee through the updated cancer guidance using the handbook; ensuring urine dip sticks are not used three months after they have been opened; and paying more attention to elevated platelet levels.

Red Whale will be administering a follow-up survey with delegates after the event they attended. This survey will look to gauge the longer-term impact by assessing the extent to which individuals' practices and confidence levels have changed as a result of attending the education event.

In lieu of attending the Red Whale training event, the two GPs interviewed said they would have sought similar information from a variety of sources: other events; the NICE Clinical Knowledge Summaries; BMJ articles; patient.co.uk (the content for professionals); and BJGP online courses. They both expressed a preference for attending the Red Whale course citing other sources of information as 'dry' or, in the case of online courses, hard to maintain focused on.

⁵⁶ Note, the number of survey responses is unknown. The percentages shown here have been calculated using total number of event attendees as the denominator

14.3 Next steps for the intervention

With Transformation Funding for 2019/20, RM Partners is planning to run a further four GP education events, and will repeat the tendering process for their delivery. It is likely that the content of all future events will remain similar to that covered in the events thus far, though RM Partners would like to ensure greater links are made to other interventions across West London (for example, ensuring GPs are aware of the RAPID pathway, and the C the Signs app).

15 Safety Netting

Chapter summary

The Safety Netting tool allows users to generate an automated report (e.g. on a weekly basis) from the electronic health record. It aims to introduce a standard approach to tracking and monitoring patients who are at risk of cancer, with the overarching aim being to prevent and diagnose cancers earlier.

Engagement with the Safety Netting project overall has been lower than anticipated; 56 GPs and practice managers attended the training events, and the Safety Netting tool was trialled by seven practices (funding originally set up to accommodate c.320 practices across West London Clinical Commissioning Groups (CCGs) to attend training and pilot the tool). The tool was only available for EMIS GP practice systems, which has limited its reach. It was also suggested that the manual administration required from GPs to implement the tool – though minimal – has been a deterrent and an automated solution would be preferable.

Nevertheless, attendees at the training on Safety Netting were positive about the session (100% stating that it was either a 'very useful' or 'fairly useful'). The three individuals from practices who took part in qualitative interviews were also positive about the tool and saw it as an improved method of Safety Netting patients. They described it as a more consistent, robust, and easier system to use than the manual system they were already using. They intended to continue to use it in practice.

The Safety Netting tool introduces a standard approach to tracking and monitoring patients who are at risk of cancer, with the overarching aim being to prevent and diagnose cancers earlier.

The tool allows users to generate an automated report (e.g. on a weekly basis) from the electronic health record (via EMIS Web or SystmOne), summarising patients who may need follow up or further action. Further action may involve ensuring that a patient has attended a hospital appointment, or had certain tests carried out. The report can be generated by administrative staff who can then prompt GPs on the actions they need to take. The tool therefore enables clinicians and administrators to proactively track and recall patients for timely reviews, replacing a verbal or written approach that is dependent on the individual clinician or patient, and risks patients slipping through the net. The tool was piloted in practices across three CCGs in West London.

As part of the evaluation, interviews have been carried out with the RM Partners lead, and a contact at one of the CCGs who helped set up the training for the project in October 2018. A representative from Cancer Research UK (CRUK), a GP, practice manager, and practice administrator from different practices were interviewed in January 2019.

15.1 Implementation of Safety Netting

Two training events were carried out for GP practices in Brent, Harrow, and Hillingdon CCGs in July and October 2018. The training events were delivered to increase awareness of cancer safety netting, improve confidence to implement a safety netting system in primary care, and prepare practices for piloting the Safety Netting tool. The events were attended by 56 GPs and administrative staff from 36 practices.

Engagement with the project overall has been lower than anticipated, with funding originally set up to accommodate c.320 practices across West London CCGs to attend training and pilot the tool. This is in part because the tool currently only works within EMIS GP practice systems and not SystmOne; the majority of practices in North West London use SystmOne and it has taken time to begin to implement the changes necessary on this system.

The events were promoted to all practices within the CCGs. Promotion was carried out through CCGs – and wherever a Macmillan GP has been present this has greatly facilitated access into primary care. Cancer Research UK (CRUK) primary care facilitators also assisted in engaging practices (funded by CRUK), and have been a valuable partnership for RM Partners. Alongside the events, RM Partners has also developed a microsite, with the help of an external technology company, to teach practices how to use the tool (<https://www.rmpartnersemisweb.info/>). This may be used in future to roll out the Safety Netting tool to further practices.

The workshops were popular with attendees, with 100% of the 56 attending stating that it was either a ‘very useful’ or ‘fairly useful’ training session. Anecdotal feedback suggests that clinicians recognise the importance of safety netting, and the need to improve the approach to safety netting across the system.

“[The training session] was really well run, well organised, videos were excellent in explaining. I would say it taught us about the process – gave me the tools and knowledge to set it up. The hard bit is getting buy in and getting it implemented, and getting people to actually use it.” Site interview – GP

Following the training, seven practices piloted the tool in practice between October 2018 and January 2019 which again was much lower than anticipated. RM Partners and CRUK provided ongoing support to practices to troubleshoot any problems they faced when employing the Safety Netting tool.

Practices received £500 to take part in the pilot: £250 to attend the training, and the remaining money once they had submitted data relating to their use of the tool to RM Partners.

15.1.1 Implementation lessons

Although the training sessions and the microsite were popular amongst attendees, the reach of the project has been limited. The project requires GPs and practice staff to take time away from their existing work commitments and learn a new system for safety netting – which may be a deterrent to more practices signing up because of the time it requires. Once back at their practice, a small amount of manual administration to get the tool up and running, as well as the need to provide a small amount of training to colleagues was thought to be a deterrent for practices to implement the necessary procedures. RM Partners has concluded that safety netting still needs to be a priority at practice level. However, if an IT solution can be sought which needs no, or minimal, manual administration this will be very attractive to practices as they have limited admin resources to utilise for safety netting.

There are some further lessons that can be drawn from this project:

- **Time to engage primary care:** GPs and practice managers had limited time to sign-up to the events because they were scheduled at short notice. It was suggested that a 2-3 month lead-in time was required to allow for proper engagement with practices.
- **Maintaining momentum between the training sessions and pilot:** There was a three-month gap between the training sessions and the start of the pilot, and participants reflected that some GPs lost motivation, or had

forgotten about how to use the tool within their practice when the pilot was due to start. It was suggested that a shorter gap, and more communication with GPs between the training and beginning of the pilot would help.

- **Engaging with primary care:** The challenge of disseminating information across a discipline as large and diverse as primary care played out in the delivery of this project. CRUK wrote to people, visited face-to-face, provided leaflets, emailed practices directly and the events were also promoted through weekly newsletter from each individual CCG. However, CRUK reported that the GPs they talked to had still not heard of the project.
- **Strategic oversight:** The project was approved by the North West London Cancer Board in summer 2017. It then needed individual approval from each of the three CCGs; this took time and caused some delays to the project. Individuals working in commissioning that took part in the stakeholder interviews reflected that the Safety Netting project was implemented locally rather than being managed strategically by the CCG/STP which limited overall buy-in at the practice level, and subsequent impact it was able to have. It was suggested that the project might have benefitted from more strategic oversight from the CCG or STP.

"[The project] was delivered very locally with a couple of interested parties without making it an organisational deliverable, so it didn't get the sign up, clout, support from the executive team that it could have done to actually have a wider impact." Stakeholder interviews – Partner stakeholder

15.2 Outcomes and impact

The Safety Netting tool was intended to introduce a more standardised and proactive approach to safety netting, leading to better patient outcomes by catching cancers earlier, thereby reducing emergency presentations and improving staging.

Participants in the interviews were all very positive about the tool, and saw it as an improved method of safety netting patients. They described it as a more consistent, failsafe, more robust, and easier system to use than the manual system they were already using. The GP, practice manager and practice administrator interviewed all intended to continue using the tool.

"It's a good process to have – know that if we don't do this it will have an impact. So decided to continue to do it. It works for us." Site interview – Practice manager

"Definitely a better way of doing it. Electronic safety netting – only direction you can head in in 2019, and doing it one way is good especially because of high staff turnover/flux." Site interview – CRUK

However, it was too early for participants to comment on the impact this intervention had on practice staff, patient experience or patient outcomes, and low numbers participating in the pilot mean there is no data to use in this evaluation to show how the tool has been used.

15.3 Next steps for the intervention

The GP, practice manager and practice administrator interviewed all intended to continue using the tool. However, the Safety Netting tool will not be continued by RM Partners – they have concluded that safety netting still needs to be a priority at practice level and there is a safety netting element to the C the Signs tool. However, if an IT solution can be sought which needs no, or minimal, manual administration this will be very attractive to practices as they have limited admin resources to utilise for safety netting.

16 Dermatoscope

Chapter summary

The overall aim of this project was to decrease the number of inappropriate dermatology referrals into secondary care, in order to reduce the burden on cancer pathways, and to improve patient satisfaction.

To do this, three GPs in Sutton were given dermatoscopes, which enables more accurate identification of types of skin lesions, alongside training sessions with a senior dermatology consultant to learn how to use the equipment. All three GPs are now using the dermatoscope in their consultations to help diagnose patients and make more informed referrals. At the time of interview (March 2019), two of the GPs had completed the training, with the third GP due to complete imminently.

Feedback from the GPs was extremely positive. All three GPs were optimistic that they were making more appropriate referrals as a result of this project and were expecting to see this reduction in their upcoming audit data. The training has also allowed the GPs to support their colleagues to make more informed referrals.

There are no plans to continue the dermatoscope training into the next round of RM Partners' Transformation Funding.

The overall aim of this project was to decrease the number of inappropriate dermatology referrals into secondary care, in order to reduce the burden on cancer pathways, and to improve patient satisfaction.

To do this, three GPs in Sutton were provided with dermatoscopes, a piece of equipment consisting of a powerful magnifier and a non-polarised light, which enables more accurate identification of types of skin lesions. The project also provided GPs with training, on how to use the equipment in a patient consultation, as well as to upskill the GP in skin cancer referrals. The project has been introduced in Sutton Clinical Commissioning Group (CCG) to reduce the high and increasing number of skin cancer referrals from primary care.

As part of the evaluation, interviews were carried out with the CCG lead who set up the project, the senior consultant delivering the training, and the three GPs who took part in the training in October 2018 and April 2019

16.1 Implementation of the Dermatoscope project

All three GPs are now using the dermatoscope in their consultations to help diagnose patients and make more informed referrals. At the time of interview (March 2019), two of the GPs had completed the training, with the third GP due to complete imminently.

To implement the project, the CCG lead in collaboration with GPs in Sutton, selected individuals to take part. Together they selected one GP practice from each locality, ensuring that each practice was large enough to withstand the absence of a GP while they attended the training. The GPs were also selected on the basis of having a particular interest in dermatology and some experience in the field (either clinical and/or academic). It was reported that effective use of a dermatoscope requires some prior understanding of dermatology, as it cannot identify whether a skin lesion is cancerous or not, rather it can help to differentiate between different types of cancerous skin lesions.

The training consisted of c.10 three-hour sessions over a period of around three months with a senior dermatology consultant from Epsom and St Helier Hospital Trust. The training sessions comprised of the GP observing the senior consultant in a clinic, giving the GP the opportunity to review patients together and discuss diagnoses and referral decisions. GPs also attended a one-day training session in advanced dermatoscopy at the Primary Care Dermatology Society (PCDS).

The three GPs were provided with a dermatoscope to use in practice. The GPs have also been encouraged to use their learning to review cases from other GPs in their practice.

16.1.1 Implementation lessons

All GPs were highly positive about their experience of the training, and reported that they were confident using the dermatoscope in consultations with patients. There are two lessons that can be drawn from their experience implementing the project:

- **Involve GPs with an existing knowledge and interest:** The three GPs and the senior consultant who delivered the training felt strongly that selecting GPs with an existing knowledge and interest in dermatology (e.g. those who took part already had diplomas in the subject or had attended additional training) is important to ensure engagement with the training, and encourage use of the dermatoscope in practice. It was reported that the training is relatively light-touch, both in content and length, and therefore the GPs need basic knowledge of lesions before beginning the training. An interest in dermatology was also felt to be worthwhile to ensure there was the desire and drive to continue developing knowledge beyond the training for example, by continuing to read around the subject, attending additional training sessions and undertaking diplomas.
- **One-to-one training from a dermatology specialist:** The type of training provided to the GPs was seen to be a key factor in the project's success. It was noted that one-to-one training is a rare opportunity for GPs. The three GPs valued exposure to dermatology referrals and cases from a secondary care perspective, and time for discussion with a specialist. This sort of training is heavily reliant on the time available from a specialist and therefore is a major factor when considering the replicability of the project.

"[The training] has been really useful... more useful than just lecture after lecture...you have [the lesions] right in front of you and a really experienced resource to talk to." Site interview – GP

16.2 Outcomes and impact

The GPs are carrying out audits to identify whether the number of inappropriate referrals has decreased at their practices as a result of this project, compared to one year ago. It is too early to say from this data what impact the training has had on referral activities, so all outcomes discussed here relate to anecdotal feedback gathered through the qualitative interviews.

Feedback from the GPs was extremely positive. All three GPs were optimistic that they were making more appropriate referrals as a result of this project and were expecting to see this reduction in their upcoming audit data. The GPs reported feeling more confident when assessing skin lesions since the training and observed they were making fewer and/or more accurate dermatology referrals. They were positive about the impact that reducing unnecessary referrals would have on patient experience and outcomes.

"If there is a lesion I'm more confident to say 'I think it's fine and ask [the patient] to try a cream for a week or something rather than reflexively referring things straight away. Looking at something under the

dermatoscope gives me the confidence to say it looks benign.... I think there are lesions that I would have referred before [the training] and haven't [after the training]." Site interview – GP

The training has also allowed the GPs to support their colleagues to make more informed referrals. All three GPs said that they were working with colleagues to provide a second opinion on dermatology referrals. Two of the GPs acknowledged that reviewing cases from other GPs could lead to increased workload. The GPs did not view this as a particular problem, but it was suggested that in the future it may be necessary to block out time to review dermatology cases from other GPs, or to ask patients with non-urgent cases to arrange a separate appointment to prevent existing consultations from being interrupted.

The GPs also felt the project had impacted positively on their job satisfaction; GPs welcomed the opportunity for personal development and to be taught one-to-one by a specialist.

16.3 Next steps for the intervention

The trained GPs all plan to continue using the dermatoscope in their consultations with patients, providing assistance in other dermatology cases within their practices and sharing learnings with others. There may also be the opportunity for the trained GPs to more formally teach other GPs how to use the dermatoscope, so the project can have more of a compounding effect.

The three GPs all discussed a desire to further their own development by continuing to study dermatoscopy, and undertaking additional training. They also plan to meet with each other every three months to share learnings and discuss cases.

There are no plans to continue the dermatoscope training into the next round of RM Partners' Transformation Funding. However, all those interviewed were hopeful that the project could be replicated elsewhere as it was seen to be relatively easy to implement. However, it was acknowledged that sufficient funding would be required to cover the training costs (for GPs and the senior consultant leading the training), as well as for the provision of dermatoscopes within each practice.

Conclusions and implications

17 Conclusions and implications

This final chapter brings together findings from across the evaluation to summarise responses to the main evaluation aims.

17.1 Achievements in summary

RM Partners had a number of ambitions for its 2017/18-18/19 Transformation Funding which it has made progress towards or met:

- It has surpassed its target of improving 62-day performance by 3% by the end of March 2019 and is consistently the highest performing Cancer Alliance for this metric.
- There are indicators which suggest RM Partners has seen positive progress towards improvements in cancer staging and reductions in emergency presentations, though due to the delays in nationally published data it is not yet possible to determine if RM Partners has met its targets for these measures.
- The interventions have achieved a range of patient outcomes including avoiding unnecessary biopsies (RAPID), reducing DNAs (Colorectal), increasing screening numbers, and training and supporting GPs. These are described in more detail below and in the individual project chapters.
- Staff at the sites piloting the redesigned pathways claim they would have implemented at least some of the pathway changes without RM Partners, however, RM Partners involvement has accelerated these changes through additional funding and hands-on project management.
- Patients have been very positive about their experiences of the pathway redesign projects and pathway modifications have been well received.
- Overall stakeholders reflect positively on their experience of working with RM Partners and report that it has been successful in bringing together senior leaders in a more collaborative relationship than experienced previously.

17.2 The role of RM Partners as a system leader

The evaluation set out to assess the extent to which RM Partners is adding value to the system, and identify the components of this added value.

Qualitatively, stakeholders and staff at sites were very positive about RM Partners. Stakeholders in the main reported that RM Partners had provided leadership and direction for cancer services in West London, and had been successful in bringing senior leaders together in a more cohesive and supportive relationship than they had experienced before. Key elements of its success are as follows:

- The governance meetings were seen to be instrumental in bringing senior leaders together to discuss issues in the system. This had built collaboration in the system and stakeholders talked about speaking to other sites in the partnership to share learning.
- RM Partners has a tight governance structure lead by a senior team with close links to the National Team and senior clinical leadership. These were seen as an asset, allowing RM Partners to have credibility with senior leaders in the system, as well as ability to influence nationally.

- RM Partners has staff dedicated to informatics which has enabled it to be data driven in its approach to operational performance as well as identifying priorities in the system. RM Partners' use of data was mentioned frequently by stakeholders as a key strength, and one other Alliances should learn from.
- RM Partners has established good working relationships at the site level. This has been through a combination of factors, including appointing experienced and committed project leads, regular contact with sites including leading on regular project management meetings, and promoting sharing learning between sites.

Stakeholders saw RM Partners as a positive and influential addition to the sector, and staff within sites felt that RM Partners had met their expectations in terms of the support and guidance offered to deliver the interventions. There were two ways stakeholders thought this partnership could be strengthened:

- Stakeholders demonstrated a lack of clarity around how decisions on the allocation of funding are made. This suggests that more transparency around why certain priorities or sites are being invested in, and how funding has been distributed across partner Trusts would be beneficial.
- Stakeholders also wanted to see closer working between the governance structures for cancer within primary care and commissioning (i.e. STPs and CCGs) and RM Partners. It was thought that there is an opportunity for RM Partners to be part of the strategic development of cancer in primary care networks and Integrated Care Systems (ICCs) as they develop – reflecting the ambitions set out in the NHS Long Term Plan.

17.3 The impact of interventions on patient outcomes and patient experience

Pathway redesign projects

The intention of each pathway redesign project is to speed up diagnosis in prostate, lung and colorectal cancer. Qualitatively, staff delivering these pilots reported significant improvements in the speed of diagnosis, and there are some indications in the data available as of April 2019 that sites have been securing faster diagnosis, though the data are somewhat limited and this cannot be concluded firmly.

Aside from faster diagnosis the interventions have achieved a range of patient outcomes that are described in detail in the individual project chapters. Some of these outcomes are only evidenced through anecdotal feedback, nevertheless overall the three redesigned pathways have resulted in fewer unnecessary outpatient appointments for patients, as well as fewer unnecessary tests (for example, avoiding unnecessary biopsies under RAPID and reducing the risk of sepsis).

For each of the three pathways, patients have been positive about their experiences, particularly in reference to the staff they have interacted with, and the speed of the pathway. It is not possible to draw conclusions on how patient experience has changed as a result of the introduction of the pathway changes, though it appears that the pathway modifications have been well received by patients. RM Partners set a target to improve patient experience metrics to meet or exceed the national average for key questions on the National Cancer Patient Experience Survey. Data related to the intervention period are not available until July 2019 and cannot be included here.

Early access projects

The early access projects focused on achieving earlier diagnosis principally through seeking to improve screening coverage, and improving cancer awareness in primary care through GP education and training.

Sizeable numbers have been screened as a result of RM Partners' early access activities. 25,000 patients who had not participated in bowel screening before were contacted, and 2,401 of these patients returned a bowel screening kit. It can

be assumed some of these patients would not have participated in screening without the Bowel Screening project. 1,878 cervical screening tests have been completed in extended clinics although the data is not able to show whether these individuals would have screened elsewhere if the extended clinics had not been available. Over 1,700 people have attended a Lung Health Check and over 1,100 have had a low dose CT scan as a result – without RM Partners proactively identifying these patients they would not have access to this service as no lung screening is available on the NHS at the moment. It is too early to say how these screening activities have impacted on the early diagnosis of these cancers.

It is expected that through upskilling primary care staff, cancers can be identified at an earlier stage. A number of activities have contributed to this aim. Over 700 GPs and practice staff have received training to improve their cancer awareness and referral behaviour (through the GP training events, Safety Netting tool, and dermatoscope projects) and over 300 practice staff have made use of C the Signs to assist in the interpretation of NICE guidance. There are a number of indicators to suggest the confidence of GPs and other practice staff has been positively impacted by these activities. For example, the training delivered by Red Whale, for Safety Netting and for the Dermatoscope project have been very well received. It is too early to say what the impact of these activities has been on patients – including how they have impacted referral behaviours, or early diagnosis.

17.4 Implications for the wider roll-out of the interventions

Pathway redesign projects

RM Partners has secured another year of Transformation Funding to continue all three pathway redesign projects. RAPID and Colorectal Redesign are already being rolled out across sites in West London, and RM Partners plans to roll out elements of the Optimal Lung pathway. This aligns with national policy to speed up the diagnosis of cancer: NHS England has indicated its ambition for the national roll out of a RAPID type model across all Alliances in order to achieve the 28-day standard⁵⁷ and Prostate Cancer UK are advocating this type of diagnostic model nationally⁵⁸. The Optimal Lung pathway is also a national initiative and all Cancer Alliances are expected to facilitate its implementation locally.

The sites piloting the redesigned pathways would likely have implemented at least some of the pathway changes without RM Partners, however, RM Partners involvement has accelerated these changes through additional funding and hands-on project management. The pilots have gathered valuable lessons to inform the wider roll-out of these initiatives which include:

- The importance of internal engagement to ensure the pathway changes can become embedded. RM Partners' project management has assisted in this, but also project implementation has been more successful where there have been highly engaged clinical staff which cannot necessarily be replicated in other sites. Having data to demonstrate the benefits of the pathway changes is likely to help with gaining buy-in. Linked to this, multi-disciplinary oversight of the pathway changes (e.g. through a steering group) will be important as the projects need to bring together staff from different hospital departments to work together – sometimes for the first time; e.g. clinical staff, radiologists, pathologists, laboratory staff etc.
- GP engagement has been important to ensure the correct referral forms and information are provided to the hospital, patients are referred onto the appropriate pathways, and patients know what to expect. Some Trusts have found engaging primary care challenging; as RM Partners builds closer links with primary care networks there is an important opportunity to improve links between primary and secondary care.

⁵⁷ <https://www.england.nhs.uk/publication/rapid-cancer-diagnostic-and-assessment-pathways/>

⁵⁸ <https://prostatecanceruk.org/about-us/projects-and-policies/best-practice-pathway>

- Ring-fenced time for diagnostics negotiated upfront will be important – the pathway changes rely heavily on capacity for diagnostic equipment and staff, and it was noted that a lack of capacity may be a barrier to wider roll-out. In the NHS Long Term Plan, NHS England committed to using its capital settlement to be negotiated in the 2019 Spending Review in part to invest in new equipment, including CT and MRI scanners.

Early access projects

A number of the early access projects will be progressed using RM Partners' next round of Transformation Funding. RM Partners plans to run the Bowel Screening project with a new cohort of patients. Extended cervical screening clinics will be offered across the whole patch. Community engagement activities to improve marginalised groups' participation in screening will also continue. RM Partners also plans to extend its focus to improving breast screening. This focus on screening aligns with the national ambitions set out in the NHS Long Term Plan which includes a package of measures to overhaul the national screening programmes – and a review is due later in 2019⁵⁹; The Low Dose CT (Lung) Case Finding pilot will continue in 2018/19. RM Partners has already shared learning with NHS England to inform the wider roll-out of this project, as targeted Lung Health Checks using CT scanning is being piloted nationally by NHS England across ten different sites from September 2019.

RM Partners plans to provide access to the C the Signs tool across eight of the CCGs in West London, and a further four training events will be held for GPs in 2019/20 to support GPs in the early detection of cancer. Supporting GPs in identifying cancers early is a priority in the Long Term Plan – specifically ensuring that all GPs are using the latest evidence based guidance from NICE to identify children, young people and adults at risk of cancer.

The pilots have gathered valuable lessons to inform the roll-out of initiatives in primary care:

- RM Partners' primary care work has faced some challenges largely due to the need to engage with a wide collection of organisations and individual practitioners to garner support. This has been particularly true of projects which require information governance (IG) arrangements to be agreed (i.e. any project requiring access to GP patient data). One of the challenges is the range of organisations which need to be involved in IG arrangements in primary care (CCGs/ CSUs/ STPs etc.) and it has been important to streamline this as much as possible – for example through producing data sharing agreement templates.
- The projects which have most potential for wider roll-out have been those where there is a clear motivation for GPs or practices to take part (e.g. it aligns with their QOF payments such as with cervical screening, or provision of training free of charge), and which require little additional work and is considered a low burden. For example, where projects have been delivered by external staff or have involved employing new members of staff (rather than being implemented by staff in primary care).

⁵⁹ <https://www.england.nhs.uk/2018/11/cancer-screening-to-be-overhauled-as-part-of-nhs-long-term-plan-to-improve-care-and-save-lives/>

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