



Prostate Cancer Case Finding Evaluation

*Final report
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Executive summary

Background

Urgent suspected urological cancer referrals, which include referrals for suspected prostate cancer, fell sharply at the start of the COVID-19 pandemic. This contributed to a sizeable gap between the numbers of people who were expected to be treated for prostate cancer, and the number that were coming through to the NHS, which reached 13,000 at its peak and prostate cancer treatment numbers were the slowest to recover of any tumour type.

In an effort to recover the prostate cancer treatment gap (the gap between the numbers of people that were expected to be treated for prostate cancer, and the number that were coming through to the NHS), the NHS Cancer Programme at NHS England looked to case finding as an approach to identifying people with unmet prostate cancer needs within the community.

This prostate cancer case finding project was designed to identify people at higher risk of prostate cancer and bring them into contact with services for a conversation about the Prostate Specific Antigen (PSA) test (i.e., PSA counselling), and provide onward PSA testing for those who wanted it.

Cancer Alliances were invited to express interest in the project. Selected project sites were asked to identify and invite a target cohort of at-risk men for a PSA counselling conversation and onward PSA testing if they had a close relative who has had prostate cancer or were of black ethnic origin (lifetime risk of 1 in 4 compared to 1 in 8 for white men). Three potential delivery models were initially identified, and Cancer Alliances were asked to decide which one to implement.

Two Cancer Alliances (Royal Marsden Partners (RMP) and Greater Manchester (GM)) delivered the pathway through a mobile van, while one (East of England South: Mid and South Essex (MSE)) employed a GP-based strategy. The delivery of the case finding pathway began in Q3 2022/2023 and ended in Q4 2023/2024.

Section 5 provides an overview of the different project profiles and Table 6 (section 5.6) summarises the key differences. Overall, the case finding models implemented by the three sites were broadly similar, apart from employing slightly different approaches to the initial search criteria and invitation methods. A summary of key differences between sites is shown below (full table available in section 5.6).

	Greater Manchester	Royal Marsden Partners	Mid and South Essex
Search criteria	Men who were 45 and above and of black ethnic origin; and men who were 45 and above with a family history of prostate, ovarian or breast cancer, or Jewish men	Men who were 45 and above for a "health check"	Men who were 45 and above and of black ethnic origin; and men who were 50 and above with a family history of prostate cancer
Marketing approach	Structured (e.g., posters, YouTube videos, appearances on local and national media)	Structured (e.g., posters, YouTube videos, appearances on local and national media)	None
Patient identification	System searches through GPs	System searches through GPs	GP practice patient searches (SystemOne)
Invitation method	GP text message & self-identification	GP text message & self-identification	Initial phone call, letter or text message (depending on each PCN)
Method of communicating the PSA results	Consultant-led telephone calls to patients regardless	Text messages to patients with a negative result and had nurse-led phone calls to	Provided options to patients but depended on each PCN/practice's existing

	Greater Manchester	Royal Marsden Partners	Mid and South Essex
	of the results, and a letter to patients	patients who were referred for further testing	approach to delivering any result
PSA outcomes	Referral to secondary care for further testing based on NICE guideline; would refer to GP but unclear for what and when	Referral to secondary care is below the NICE threshold due to no physical examination on the van	Referral to secondary care based on either local or NICE guidelines. If negative PSA results, a follow-up testing 4 weeks after the first test would be offered
Overall delivery approach	MDT approach as different healthcare professionals were involved; centralised approach	Nurse-led delivery; centralised approach. *RMP had begun using the Man Van prior to taking part in NHS England case finding project	MDT approach, which is GP-led, but PCN-specific

Evaluation approach

A mixed methods evaluation of the project was undertaken by North of England Commissioning Support (NECS) in a robust and collaborative way, working with the NHS England team and site teams in each of the three geographical areas with the following evaluation aims:

- Understand the impact of case finding on the detection of prostate cancer in the target populations, and
- Gather learning from the implementation of the projects for future case finding projects, not limited to prostate cancer.

The evaluation workstreams included a literature review, documenting the project profiles for each site, the collection and analysis of bespoke patient level and aggregate data, a bespoke patient survey, patient interviews and staff focus groups/interviews with primary and secondary care staff and implementation teams. In addition, the NECS evaluation team maintained an active working relationship with each site, hosting fortnightly evaluation meetings, as well as undertaking project meetings with NHS England throughout the duration of the project. There were extensive challenges in obtaining consistent data across all sites. These are described in more detail in section 4.2.

Findings

1. The following general findings were obtained from the patient-level data:
 - Across all project sites, there were 5,974 men invited, and/or seen and assessed within the services covered by the project between January 2023 and February 2024.
 - Of the 5,974 men in the targeted cohort, 42.7% were of Black ethnicity, 39.3% were White, 5.8% were Asian, and 4.5% of Mixed origin with the remainder in other ethnicity categories or unknown.
 - Over 78% of men were aged between 45 and 65 years.
 - Men in more deprived communities were well represented in the project with about half of men registered with a GP practice in the lower 5 deciles (using the Index of Multiple Deprivation).
2. Findings for each evaluation question are reported below:
 - Question 1: What impact does case finding have on supporting the target groups to come forward for PSA counselling and PSA testing?
 - Around 2 in 3 men booked an appointment for PSA counselling following an initial invitation, with men of black ethnicity being less likely to book an appointment (Black ethnicity 53.6% vs White ethnicity 95.6%). There were no apparent impacts of age and deprivation on the likelihood of attending

- counselling. A small percentage of men did not attend their booked counselling appointments.
- In the patient-level data, around 85% of those who were counselled went on to have a PSA test. There was no impact of age, ethnicity and deprivation on the likelihood to go ahead with PSA testing, once they had attended for the counselling appointment. This was also confirmed through the patient survey and interviews, where men shared that their decision to have a PSA test was almost immediate (even at the point of invitation). Staff further described that most patients who attended a PSA counselling appointment went ahead with a test.
 - Overall men's experience of getting invited to an appointment for PSA counselling and booking this appointment was positive. More than half, either immediately or after a few days, decided to book an appointment with men describing the whole booking process as "easy", "straightforward" and "convenient" across the three sites. Men responded to the invitation for a range of reasons, including because they wanted to accept the offer for a health check, viewed the opportunity as part of their ongoing PSA monitoring, heard about it from friends and family (i.e., word of mouth) and valued the convenience of the approach when delivered via a van.
 - Patients who did not go ahead with a PSA test shared that it was because they were either not offered one, had one recently, or that they questioned the benefits or reliability of the test. Patients were aware of the challenges of the PSA test and also that, at present, it is the best test there is to indicate their risk of prostate cancer. When dealing with questions on the reliability of the PSA test, staff felt that PSA counselling was necessary to ensure patients were informed about the possibility of false positives and negatives and allow for shared decision-making.
- Question 2: What effect does case finding have on prostate cancer or other cancer detection?
 - There were 76 diagnoses of Prostate Cancer present in the patient-level data (vs 87 from the aggregate data) across the 3 project sites. The majority of those (80.3%) diagnosed were from the Royal Marsden site (n=61).
 - The finding that 21% of diagnoses were in men of black ethnicity, suggests that men of black ethnicity were successfully targeted using this case finding approach. This proportion would have been much higher, had one of the sites not opened up their health checks to all men over 45 years, resulting in a much higher proportion of white men in their cohort.
 - The small amount of data provided by one site does suggest that case-finding can identify clinically significant disease.
 - Question 3: What impact does case finding have on service delivery?
 - The data provided did not allow any conclusion on the impact on other related pathways. However, the number of referrals over the course of the project was relatively small and is likely not to have a negative effect by significantly increasing overall activity. The background/baseline levels of activity on these pathways were not measured.
 - Anecdotally, staff felt that the pathway did not impact the number of referrals into secondary care and treated them as any other referral requiring further investigation. However, staff reflected on the importance of ensuring all required information was available at the time of referral, otherwise, this caused challenges with the acceptance of the referral by secondary care.
 - Patients, who were referred to secondary care, especially those with the option to be seen at RMP instead of their local hospital, often valued the opportunity to undergo further investigation at specialist centres especially if they had

experienced challenges with getting appointments or processes at their local hospital.

- Question 4: What are the benefits and challenges of case finding?
 - This is a preview of the answer to this evaluation question. The full list is available in Section 7.4.5.

	Patients	Clinicians	Implementation teams
Benefits	<ul style="list-style-type: none"> ○ Proactiveness through the invitation and not having to ask for a PSA test from their GPs. ○ More access to services beyond their GPs. ○ Mobile vans made the offer specific, accessible and visible for men, which was effective in raising the public's awareness of prostate cancer. ○ Easy and convenient booking process. ○ Getting peace of mind regarding their health. 	<ul style="list-style-type: none"> ○ Clinicians found working on the mobile vans positive & rewarding. ○ Case finding was important for increasing access & prioritising men's healthcare, especially after the pandemic. ○ Significant demand on the mobile vans, with the need to increase staffing & appointment capacity. ○ The projects received positive patient feedback, diagnosed men with prostate cancer & reached out to communities/at-risk groups. 	<ul style="list-style-type: none"> ○ Project made a difference to patients & created a legacy in the form of education & awareness of prostate cancer. ○ An understanding of key considerations when implementing a mobile van vs. primary care approach to case finding. ○ The ability to transfer primary care model to other case finding initiatives or locations.
Challenges	<ul style="list-style-type: none"> ○ Different experiences and preferences of how PSA results were received. ○ Knowing what happens next (and if they will be invited to another PSA test in the future). ○ Knowing whether a physical examination or DRE was part of the appointment. ○ The perception that there is no national focus on prostate cancer or men's health that emphasises improved access, more awareness and better tests. 	<ul style="list-style-type: none"> ○ Decrease in demand on moving the mobile vans. ○ Some difficulties getting referrals accepted into secondary care. ○ Uncertainty about the impact of the project on prostate cancer diagnosis. ○ Issues with access to key systems, such ability to order bloods & access main computer systems. ○ Considerations of working with target patient population, including low levels of health literacy & having access to relevant information (e.g. email address, phone no. & relevant health information). 	<ul style="list-style-type: none"> ○ Workforce issues in primary care, cancer specialists in urology & staff willing to travel/commute to the vans. ○ Communication challenges with GPs, wider stakeholders, including those with concerns, & identifying key enablers for van locations. ○ Tracking patients from primary care into secondary care.

3. Additional findings are reported below:

- Patients had an overall positive experience of getting their results. Some patients also valued the opportunity to speak to a clinician about any further questions or concerns they had and being able to access their health records. When patients described a negative experience, these mainly related to the amount of information they received about their results, having to wait longer than they anticipated or being

unsure about what would happen next e.g. if a future invitation for a PSA test would be offered.

- Patients, clinicians, and implementation staff made reference to wider influences and other awareness campaigns which had occurred in parallel to the case finding project and may have resulted in men coming forward, such as Prostate Cancer UK's campaign and online tool, and the featuring of prostate cancer in the media linked to high profile people being diagnosed with cancer.
- Clinicians also reflected about the guidelines in place for further investigation of prostate cancer in secondary care. Firstly, RMP used the PSA threshold recommended by the European Association of Urology (rather than recommended by the NICE guidelines) due to the lack of capacity on the van to conduct other tests such as a digital rectal examination (DRE). Secondly, where several guidelines for referrals were in place, this was flagged as causing confusion among clinicians, especially in MSE.

Conclusions

Several evaluation aims were set out at the start of this project. Data gaps and considerations mean that it has not been possible to comprehensively address all of those aims but through analysis and synthesis of what is available, several headline conclusions can be drawn:

- a. On the whole, the approach to identifying and inviting cohorts used in the case finding projects seemed to successfully reach and engage with the target groups.
- b. The majority of men who had PSA counselling went on to receive a test, with all sites ensuring that they delivered a counselling conversation about the PSA test.
- c. While patients were satisfied with how they received their results, some felt they did not know what would happen next after the test.
- d. Patients felt that the vans were novel, but staff felt that managing them was challenging.
- e. The delivery team and communication are key to the success of a case finding pathway regardless of the delivery model.
- f. Links with secondary care were sometimes challenging in terms of data access and requesting referrals.
- g. The impact of the project is difficult to demonstrate in terms of cancer diagnosis or impact on delivery.
- h. Overall, patients, clinicians and implementation staff considered the project to be of value.

Recommendations

The rationale for this project was the prostate cancer treatment gap which manifested in the pandemic. The nature and scale of the project is such that it is not possible to draw any conclusions about the role of case finding in prostate cancer as a means of shifting the stage at diagnosis.

If a similar case finding approach were to be tested or implemented for other conditions, programme teams may want to consider the following recommendations:

- a. Projects need appropriate infrastructure and support, IT and data solutions.
- b. Tightening of key parameters for 'at-risk' groups or invitations.
- c. Further exploration of the most effective method to increase public engagement
- d. Projects could benefit from a walk-in facility and/or online booking mechanism.
- e. Future service planning should take account of unexpected costs associated with resolving operational issues.
- f. Evidence or guide on how to operationalise a mobile van (i.e., a "how-to" guide).
- g. More awareness of risk factors and improved access to get a test.
- h. Clearer information about where case finding fits into wider (men's) health programmes or addressing health inequalities.
- i. Development of a framework on how to conduct PSA counselling.
- j. Clarity needed over guidelines for further investigation in secondary care.

1. Introduction: Prostate cancer case finding

Urgent suspected urological cancer referrals, which include referrals for suspected prostate cancer, fell sharply at the start of the COVID-19 pandemic. This contributed to a sizeable gap between the numbers of people that were expected to be treated for prostate cancer, and the number that were coming through to the NHS, which reached 13,000 at its peak. Prostate cancer treatment numbers were also the slowest to recover of any tumour type.

In an effort to recover the prostate cancer treatment gap (the gap between the numbers of people that were expected to be treated for prostate cancer, and the number that were coming through to the NHS), the NHS Cancer Programme at NHS England looked to case finding as an approach to identifying people with unmet prostate cancer needs within the community. This prostate cancer case finding project was designed to identify people at higher risk of prostate cancer and bring them into contact with services for a conversation about the prostate-specific antigen (PSA) test (i.e., PSA counselling), and provide onward PSA testing for those who wanted it.

Cancer Alliances were invited to express interest in the project. Selected project sites were asked to identify and invite a target cohort of at-risk men for a PSA counselling conversation and onward PSA testing if they had a close relative who has had prostate cancer or were of black ethnic origin (lifetime risk of 1 in 4 compared to 1 in 8 for white men). Three potential delivery models were initially identified, and Cancer Alliances were asked to decide which one to implement:

Model 1
Mobile van or stationary community centre in areas convenient to the target population e.g., known areas of deprivation where patients access healthcare less than average. Patients either referred into the service via local GP surgeries (identify the patients via a search of their patient lists based on family history and ethnicity risk factors) or service promoted through a community engagement communication strategy (churches, employers, radio etc) encouraging men to book an appointment for a PSA counselling conversation and onward PSA testing.
Model 2
Independent sector negotiated access to local PCN/GPs to search and identify high risk cohorts. They are then actively contacted and encouraged to book into an independent sector community base for a PSA counselling conversation and onward PSA testing.
Model 3
Wholly GP based strategy, where identification of patients based on a search of their patient list for risk factors, invitation to review, counselling and onward care post PSA testing is conducted at a local GP surgery.

Two Cancer Alliances (Royal Marsden Partners (RMP) and Greater Manchester (GM)) delivered the pathway through model 1 – a mobile van – and one (East of England South: Mid and South Essex (MSE)) employed model 3 – a GP based strategy. Delivery of model 2 was not used in the project and was not part of this evaluation. The delivery of the case finding pathway began in Q3 2022/2023 and ended in Q4 2023/2024. There were variations in approaches to delivery of the models and overall pathways between the Cancer Alliances, and the evaluation investigated the variations in approaches to delivery and explored the impact of these differences.

2. Literature review

2.1 Literature review: Approach

A pragmatic horizon scan of the literature was undertaken to provide context for the evaluation. Key documents provided by NHS England, namely the Prostate Cancer Case Finding Evaluation Framework, have also informed this section. As part of this review, the evaluation team searched both academic databases (mainly through NHS Knowledge and Library Hub) and non-academic websites (e.g., reports or policy papers from government websites, public health domains, third sector organisations and/or grey literature). The searches and main literature review took place between May and July 2023. The review was shared with NHS England and revised as part of the interim report. This literature review included 22 documents, reports or papers. Key terms used in the searches included: prostate cancer diagnosis and risk factors, case finding, PSA testing, PSA counselling and health inequalities. Studies were included if they were published in the last 5 years and answered the following questions:

- What are the known at-risk groups for prostate cancer?
- How are men diagnosed with prostate cancer & what are the associated challenges with diagnosis?
- What was the impact of the COVID-19 pandemic on prostate cancer diagnosis?
- How do health inequalities impact prostate cancer diagnosis & survival?
- What is known about case finding for prostate cancer?

2.2 What are the known at-risk groups for prostate cancer?

A recent systematic review involving 334 studies found that globally, prostate cancer is the second most common cancer among men, with the highest incidence in North and South America, Europe, Australia, and the Caribbean (Bergengren et al., 2023). The causes of prostate cancer are largely unknown but certain factors can increase a man's risk of developing the disease:

- The same systematic review above found that the risk factors include age, family history, and genetic predisposition (Bergengren et al., 2023).
- Ethnic origin: In the UK, prostate cancer mortality was highest among males in the Black Caribbean and Black African ethnic groups and lowest in the Bangladeshi ethnic group (Office of National Statistics, 2021).
- Age: prostate cancer prevalence increased with age, being detected in >50% in men aged ≥ 90 years. The frequency of high-grade prostate cancer almost doubled with each increasing age category (Jacklin et al., 2021)
- Family history: If the father had prostate cancer, the age-specific hazard ratios (HR) for sons was 2.1 and it increased to 17.7 when three brothers were affected. Familial risks were somewhat higher for fatal than for incident prostate cancer, suggesting that fatal prostate cancers may be a genetic subgroup (Hemminki, 2012).
- BRCA gene mutations: BRCA1 and BRCA2 mutations have not only been linked with prostate cancer, but also breast and ovarian cancer. However, BRCA2 is the most common gene found altered in early-onset of prostate cancer in males younger than 65 (Junejo & AlKhateeb, 2020).

2.3 How are men diagnosed with prostate cancer and what are the associated challenges with diagnosis?

The UK National Screening Committee (NSC) does not currently recommend a population based screening programme for prostate cancer in the UK mainly due to concerns over the effectiveness and specificity of the PSA test in detecting prostate cancer, the absence of

alternative tests and the lack of better treatment options for patients with early-stage prostate cancer (UK NSC, 2020). Most people who are diagnosed with prostate cancer have come via a referral from their GP. For some, this will be because they have presented with symptoms which have prompted the GP to do a PSA test. In other cases, the person is asymptomatic but has raised the possibility of PSA testing in line with the government's Prostate Cancer Risk Management Programme (PCRMP). As well as the PSA test a physical examination of the prostate (known as a digital rectal examination, or DRE) may also be used. For those who need further investigation, an MRI scan is typically the next step, followed by a biopsy if indicated (NHS Health A to Z, 2021). It is the results of the biopsy which confirm if prostate cancer is present, or not.

Reflecting the complex landscape, in developing the case finding approach as a mechanism to redress the prostate cancer treatment gap, NHS England made it clear that to sites that PSA counselling was an essential component of the pathway and that mpMRI should be in place prior to biopsy to minimise any harm linked to overdiagnosis and overtreatment, as referenced in information from the Prostate cancer case finding projects: Kick-off meeting in October 2022.

2.4 What was the impact of the COVID-19 pandemic on prostate cancer diagnosis?

- According to the National Prostate Cancer Audit (NPCA; 2022), there was a 54% reduction in the number of patients newly diagnosed with prostate cancer in England during April-June 2020 compared with the same period in 2019. From July 2020 onwards there was an increase in diagnostic activity across all regions but this had not returned to 2019 levels by the end of 2020. These figures, however, have improved as there was an increase in men newly diagnosed with prostate cancer in 2022 in England (i.e., 27% more in 2022 compared to 2021 and 14% more compared to 2019) as reported in the latest NPCA (2024) report.
- Men diagnosed in 2020 were typically at a more advanced stage (Stage IV: 21.2% vs 17.4%) and slightly older (57.9% vs 55.9% \geq 70 years; Nossiter et al., 2022).
- The COVID-19 pandemic impacted prostate cancer diagnoses more than any other tumour type and up to 13,000 fewer prostate cancer cases were detected in the first 2 years of the pandemic than would be expected based on long-term trends (National Cancer Registration and Analysis Service (2021, 2022) as cited in Merriel et al., 2023).
- Leszczynski and colleagues (2022) reported that in England, men who missed a diagnosis of prostate cancer during the pandemic appear to be younger on average than men diagnosed pre-pandemic; there was also an increase in death from any cause in men with prostate cancer (26% during the pandemic compared to 7% pre-pandemic).

2.5 How do health inequalities impact prostate cancer diagnosis & survival?

- There is a 3.8% gap in early diagnosis of prostate cancer between the least deprived and most deprived populations. The "Tumour site review – prostate cancer" paper reported that an analysis of cancers diagnosed from 2015 to 2019 found a 1.6% difference in 1-year survival of prostate cancer between the least deprived areas and most deprived areas.
- In a longitudinal study in England and Wales involving more than 3,000 men with prostate cancer, education, occupation, and income were associated with prostate cancer survival; more contextual effects of area-level deprivation on survival inequalities between occupation types were also found for men with prostate cancer (Ingleby et al., 2022).

- Prostate cancer incidence are reported to be highest among the Caribbean and Black African ethnic groups, however mortality rates for prostate cancer are lower or similar in males of non-White minority ethnicity, compared with the White ethnic group, in England and Wales (2017-2019)¹².
- Worldwide, men of African ancestry demonstrate worse outcomes in prostate cancer, a phenomenon driven largely by social factors that inform biologic, environmental, and health care risks. A conceptual model was presented that organises the many factors that influence prostate cancer incidence and mortality. Various studies have demonstrated parity in outcomes when social and health factors, such as access to equitable care, are normalised. Few studies have tested interventions to reduce inequities in prostate cancer among Black men (Nyame et al., 2022).

2.6 What is known about case finding for prostate cancer?

Case finding is defined as a strategy for targeting resources at individuals or groups who are suspected to be at risk for a particular disease. It involves actively searching systematically for at-risk people, on the basis of symptoms, recent diagnoses or other risk factors, rather than waiting for them to present with symptoms or signs of active disease (Faculty of Public Health, n.d.). Within the context of prostate cancer, case finding has been referred to as the detection of asymptomatic early prostate cancer (Kirkman et al., 2017) and GPs' recommendations of a PSA test for men based on their profile (Kannan et al., 2019).

Several papers were found to discuss prostate cancer case finding:

- In Australia, Kannan and colleagues (2019) looked to understand differences in experience for undiagnosed men who underwent prostate cancer case finding for those who lived in and outside metropolitan areas. Another paper explored the perceptions and experiences of prostate cancer case finding, diagnosis, treatment, and care for both diagnosed and undiagnosed men (Kirkman et al., 2017).
- In the Netherlands, "intelligent case finding" in prostate cancer, which involved prostate MRI and identification of risk groups that need treatment, was proposed as an alternative to a population-based approach to screening (de Reijke et al., 2021).
- In the UK, a systematic review by the Man Van team found limited information on the use and efficacy of mobile screening for prostate cancer (Moghul et al., 2023).

In general, prostate cancer case finding does not appear to be a widely used phrase in the recent literature. While there is work documenting patient experience, this work was not undertaken in the UK. There also does not appear to be any evidence recording clinicians' experiences when delivering case finding or how to implement case finding. The term "PSA counselling" was also included in literature searches, but this did not generate many results.

In the most recent literature, the following issues have been raised regarding case finding:

- A small number of GPs expressed concern about the NHS England case finding project during the expressions of interest process, arguing that case finding is a term used to circumvent the UK NSC position. These GPs described case finding as "screening by stealth" and "an excuse for bad science and practice" (Mahase, 2022).
- Shared decision-making is necessary since the PSA test could potentially harm an individual. However, the literature suggests that clinicians often neglect a discussion on this issue before ordering the test (Mishra, 2021).
- Merriel and colleagues (2023) shared that patients and GPs may find conversations about PSA testing challenging given the differences between guidance for assessing

¹ [Prostate cancer statistics | Cancer Research UK](#)

² [Mortality from leading causes of death by ethnic group, England and Wales - Office for National Statistics \(ons.gov.uk\)](#)

symptomatic and asymptomatic patients in the NICE guideline (NG12) and changes to guidance over time.

2.7 Literature Review: Conclusion

Existing evidence suggests agreement on certain risk factors associated with prostate cancer, health inequalities that exist with specific populations, and the impact of COVID-19 on diagnosis. Diagnosing prostate cancer, however, continues to be challenging and the debate about whether there are sufficient clinical and cost effectiveness grounds for a national NHS screening programme continues.

The term "case finding" is not widely used in the literature. Where it is used, there is variation in whether it is connected to people who are asymptomatic, in which case there are synergies with screening, or to people who are symptomatic. Specifically, there is not much evidence, in the UK, surrounding:

- the impact of case finding on prostate cancer diagnosis and treatment
- data flow from patient identification as part of case finding until diagnosis and/or treatment,
- men's experience of case finding (e.g., finding out their risk of prostate cancer, undergoing a PSA test, being referred for further investigation etc.)
- staff experience of case finding (e.g., communicating to patients their risk, offering them a PSA test etc.)
- how case finding programmes are implemented and relevant learning or evidence for future case finding programmes.

3. Evaluation aims and questions

NHS England developed a logic model for this case finding pathway (see Appendix 2), which informed the aims and questions for this evaluation.

Evaluation aims:

- Understand the impact of case finding on the detection of prostate cancer in the target populations, and
- Gather learning from the implementation of the projects for future case finding projects, not limited to prostate cancer.

Evaluation questions:

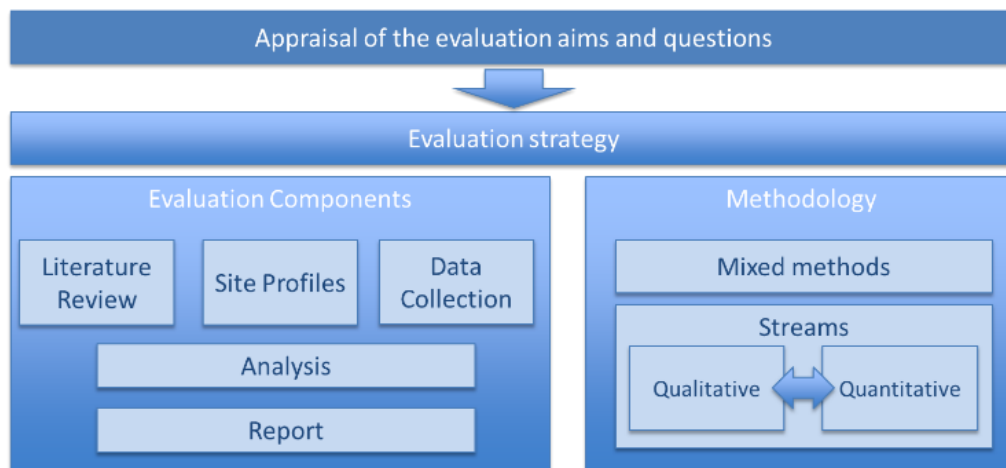
- 1) What impact does case finding have on supporting the target groups to come forward for PSA counselling and PSA testing?
 - a) What impact does case finding have on supporting the target groups to attend PSA counselling?
 - b) What impact does case finding have on the target groups receiving a PSA test?
 - c) Are there differences between the different models of case finding in terms of supporting the target groups to attend a counselling session/ receiving a PSA test?
- 2) What effect does case finding have on prostate cancer or other cancer detection?
 - a) What impact does case finding have on the number of people being diagnosed with prostate cancer?
 - b) What impact does case finding have on stage at diagnosis and clinical significance of prostate cancer?
 - c) What impact does case finding have on number of people being diagnosed with other cancers?
 - d) What impact does case finding have on other incidental findings?
- 3) What impact does case finding have on service delivery?
 - a) What impact does case finding have on routes of referral for patients referred in target groups?
 - b) What impact does case finding have on patients starting treatment in the target groups?
 - c) What impact is there on other urological pathways?
 - d) How many patients on the pathway received an mpMRI
- 4) What are the benefits and challenges of case finding?
 - a) How much did the service cost to run in each site and what was the resource requirement?
 - b) What was the patient experience of the different models of case finding?
 - c) What was the health professional/clinician view of the different models of case finding?
 - d) What was the non-clinical staff view of their model of case finding and their experience of managing their delivery model?

4. Method

4.1 Overall approach to the national evaluation of prostate cancer case finding project

A mixed methods evaluation of the prostate cancer case finding project was undertaken by North of England Commissioning Support (NECS) in a robust and collaborative way, working with the NHS England team and site teams in each of the three geographical areas. The overall evaluation approach is summarised in the diagram below (Figure 1) through quantitative and qualitative workstreams. These workstreams were led by NECS colleagues with relevant expertise and integrated during the evaluation to produce this final report. The methods used within each workstream are described in detail in Section 4 below. In addition, the NECS evaluation team maintained an active working relationship with each site, hosting fortnightly evaluation meetings, as well as undertaking project meetings with NHS England throughout the duration of the project.

Figure 1 Overall evaluation approach



When designing the overall evaluation approach, the NECS evaluation team undertook an appraisal of the evaluation aims, questions and sub-questions to identify whether questions could be answered by qualitative, quantitative or both data sources (Table 1). The evaluation team also undertook a mapping exercise, matching and overlaying each evaluation question to the relevant part or parts of the clinical pathway to provide a structured and comprehensive approach (Figure 2). Both exercises built upon and sense-checked the information included in the NHS England Prostate Cancer case finding evaluation framework and logic model. As part of this process, to meet the second aim of the evaluation, the evaluation team proposed an additional evaluation (question 4d) in Table 1 below, which focused on the experiences of staff at each site operationally managing the pathway to identify key learning from implementation of case finding, and acknowledged the distinction between operational staff and clinical staff.

Table 1 Appraisal of the evaluation questions and sub-questions

Question	Qual ?	Quant ?	How can we answer this question?	Aim?
1) What impact does case finding have on supporting the target groups to come forward for PSA counselling and PSA testing?				1

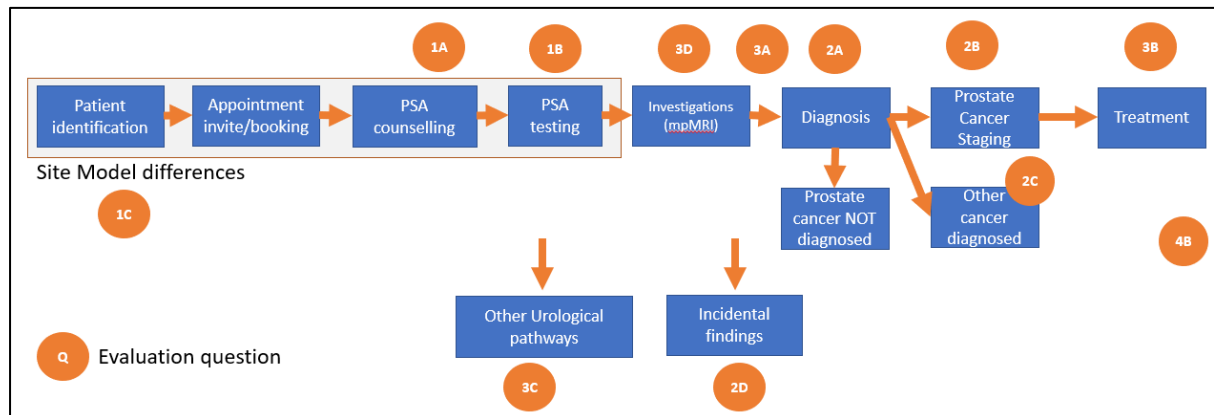
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Question	Qual ?	Quant ?	How can we answer this question?	Aim?
a) What impact does case finding have on supporting the target groups to attend PSA counselling?	Yes	Yes	MDS, patient survey, patient interviews and staff focus groups/interviews	1
b) What impact does case finding have on the target groups receiving a PSA test?	Yes	Yes	MDS, patient survey, patient interviews and staff focus groups/interviews	1
c) Are there differences between the different models of case finding in terms of supporting the target groups to attend a counselling session/ receiving a PSA test?	Yes	Yes	Triangulation between different data points	1
2) What effect does case finding have on cancer detection?				1
a) What impact does case finding have on the number of people being diagnosed with prostate cancer?	Yes	Yes	MDS and patient interviews	1
b) What impact does case finding have on stage at diagnosis and clinical significance of prostate cancer?	Yes	Yes	MDS and patient interviews	1
c) What impact does case finding have on number of people being diagnosed with other cancers?		Yes	MDS	1
d) What impact does case finding have on other incidental findings?	Yes	Yes	MDS, patient interviews and staff focus group	1
3) What impact does case finding have on service delivery?				1
a) What impact does case finding have on routes of referral for patients referred in target groups?	Yes	Yes	MDS, interview/focus group with staff and sites and patient interviews	1
b) What impact does case finding have on patients starting treatment in the target groups?		Yes	MDS	1
c) What impact is there on other urological pathways?		Yes	MDS	1 & 2
d) How many patients on the pathway received an mpMRI	Yes	Yes	MDS and patient interviews	1
4) What are the benefits and challenges of case finding?				1 & 2

Question	Qual ?	Quant ?	How can we answer this question?	Aim?
a) How much did the service cost to run in each site and what was the resource requirement?	Yes		Staff focus groups	2
b) What was the patient experience of the different models of case finding?	Yes		Patient survey, interviews and staff interview/focus groups	1 & 2
c) What was the health professional/clinician view of the different models of case finding?	Yes		Staff focus group/ interviews	2
d) What was the non-clinical staff view of their model of case finding and their experience of managing their delivery model?	Yes		Site meetings, document reviews, focus groups	2

Key							
	New sub evaluation questions		Quant & Qual questions		Qual questions		Quant questions

Figure 2 Mapping of evaluation questions to the relevant parts of the clinical pathway based on the question numbers above.



4.2 Quantitative methods

4.2.1 Analytical approach

The approach was designed to assess any impacts of case finding on the activity along the prostate pathway. The analysis focused on describing the cohorts of men that pass through each step in the pathway in terms of their demographics. To do this, we undertook a series of subgroup analyses based on a set of attributes that were present in the data, specifically:

- Age group - 5-year age bands from 40 to 85+ (40-44,45-49 etc)
- Ethnicity category
 - Asian or Asian British - Any other Asian background
 - Asian or Asian British - Bangladeshi
 - Asian or Asian British - Indian
 - Asian or Asian British - Pakistani
 - Asian/Asian British
 - Black or Black British - African
 - Black or Black British - Any other Black background

- Black or Black British - Caribbean
- Black/African/Caribbean/Black British
- British
- Mixed - Any other mixed background
- Mixed - White and Asian
- Mixed - White and Black African
- Mixed - White and Black Caribbean
- Mixed/Multiple ethnic groups
- Not Disclosed / Unknown
- Not stated
- Other - Any other ethnic group
- Other - Chinese
- Other asian
- Other ethnic groups - Any other ethnic group
- Other ethnic groups - Chinese
- Somali
- Unknown
- White
- White - Any other white background
- White - British
- White - Irish
- Index of Multiple Deprivation (see below)

Deprivation

The Index of Multiple Deprivation (IMD) is a commonly used metric to indicate the levels of deprivation experienced by people living in each area. The country is divided up into small areas (known as lower super output areas or LSOAs) that are then ranked from 1 to 32,844, using a range of factors to determine how deprived that area is. For ease of comparison, these are then grouped into deciles to provide a score of 1-10. We used the location of the GP practice with which a patient was registered to obtain the LSOA from which we could derive the IMD level.

Using these demographic factors, we analysed each project site's approach to case-finding.

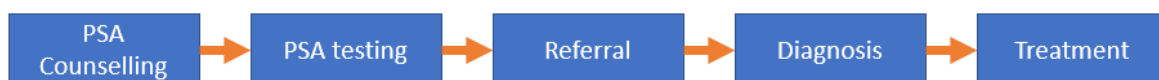
4.2.2 Overview of data requirements

From the project's outset, the requirement for each site was to collect and provide a dataset to support the evaluation. The initial requirements were shared with each site and were used in part to inform their data collection. The period covered by the data was from each sites 'go-live' date to the end of February 2024. Due to the challenges in establishing patient-level data flows, summary aggregate data was requested and provided by each site.

4.2.3 Data acquisition

4.2.3.1 Patient-level data

In the initial planning phase, a 'minimum data set' (MDS) was specified to support the evaluation. The data items requested describe the progression through the patient pathway from the initial invitation through to treatment. The full MDS is available in Appendix 7. A summary of the data coverage, completeness and issues is outlined in 4.2.3.3 below. The overall numbers are reported in Section 6 below in Figure 12.



4.2.3.2 Aggregate data

A monthly return from each of the sites was provided, ending with a final return for February 2024. The data template contained the key elements that describe the activity along the prostate cancer case-finding pathway.

The items requested were,

- Number of men invited for PSA counselling.
- Number of men booked into PSA counselling.
- Number of men who attended PSA counselling.
- Number of men who had PSA test.
- Number of referrals for suspected prostate cancer.
- Number of men diagnosed with prostate cancer.
- Numbers of cancers diagnosed at each stage.
- Number of men starting treatment.

Table 2 Aggregate data provided by each site

Metric	Royal Marsden	Christie, Manchester	Mid and South Essex
Period	January-Dec 2023	May – October 2023	March 2023-Feb 2024
Number of patients invited for PSA counselling	Yes (missing October)	Not known	Yes
Number of patients booked into PSA counselling	Yes	Yes	No
Number of patients attended PSA counselling	Yes	Yes	Yes
Number of patients had PSA test	Yes	Yes	Yes
Number of referrals for suspected prostate cancer	Yes	Yes	Yes
Diagnosed - Stage T1	Yes	No	Yes
Diagnosed - Stage T2	Yes	No	Yes
Diagnosed - Stage T3	Yes	No	Yes
Diagnosed - Stage T4	Yes	No	Yes
Diagnosed – Total	Yes	Yes (from August)	Yes
Number of patients starting treatment	Yes	Yes (from August)	Yes

4.2.3.2 Additional data

Royal Marsden were also able to provide an additional report that contained detail about some of the elements that the evaluation was initially designed to examine. However, this data was only available for January-June 2023 and therefore could only be used in part to illustrate certain aspects.

4.2.3.3 Summary of data used in the evaluation

Most of the quantitative analysis presented here uses the patient-level data provided by each site. This is supplemented where necessary using aggregate data.

There were a range of datasets available. The following table shows the different datasets and the period that each covered.

Table 3 Datasets and period covered

	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	
MSE			[Green bar]													
			[Orange bar]													
GM					[Green bar]											
					[Orange bar]											
RM	[Green bar]															
	[Orange bar]															
	[Blue bar]															

Key	Type	Date provided to Evaluation team	Frequency	Content	Issues
[Green bar]	Aggregate data	July-23 to Mar-24	Monthly	Subset of summary metrics	Useful for monitoring progress, not sufficiently detailed for final analysis
[Orange bar]	Patient-level data	Jan-24 and Mar-24	1 extract with revisions	Patient-level Minimum data set	Activity totals didn't match aggregate data, missing key fields for some sites
[Blue bar]	Additional summary data	Apr-24	1 report	Detailed summary	Only contained data for half the project duration, and only provided at end of analysis period

4.3 Qualitative methods

All documents, information and questions developed for the qualitative components of this evaluation were informed by i) the initial scoping phase of the evaluation, ii) discussions with sites regarding the feasibility of the suggested approaches and iii) discussions with NHS England to obtain their input and feedback prior to data collection activities taking place.

4.3.1 Project profiles

To capture descriptive site information and initial implementation learning, the evaluation team asked staff from each site to complete a site profile. Each site profile aimed to collect detailed information on the following:

- i. the chosen model,
- ii. the site itself, understanding the geography, organisational structures, and contextual factors, including areas of deprivation,
- iii. a list of key stakeholders, and
- iv. information regarding costs, resourcing, and staff training, as per the evaluation questions.

Site profiles were sent to site teams in May 2023, with follow-up discussions taking place with each site in routine evaluation meetings in June/July 2023. Across all three sites, the main project manager completed the written project profile, however, other members of the core site team contributed during evaluation meetings, where appropriate. Based on the information captured on the profile and the discussions during those meetings, the evaluation team summarised and synthesised the information to produce one profile for each site. Each site profile was then returned to the relevant site team, via email, in August/September 2023 to be sense-checked. The individual project profiles appear in Appendix 3, with an overall summary of the data collected presented in Section 5 of this report; this section was further expanded based on findings from the staff interviews/focus groups and implementation focus groups. This summary demonstrates how the sites had interpreted the proposed NHS England case finding programme of work and the key areas of variation between the sites.

4.3.2 Patient experience: Survey and interviews

The overall approach to understanding the patient experience was focused on capturing the breadth and depth of men's experience across time points on the clinical pathway.

Firstly, a patient survey looked to capture men's experiences of the first three steps within the clinical pathway, namely invitation, PSA counselling and PSA testing. This aimed for breadth by capturing feedback from as many men as possible, as well as spread across the three sites, whether the men chose to undergo a PSA test (and progress along the pathway). Secondly, patient interviews looked to explore the experience of men who have accessed the full clinical pathway, to provide a more in-depth understanding of case finding from a patient's perspective. This was a targeted and focused data collection activity, with a smaller number of men involved.

4.3.2.1 Review of patient experience measures for patient survey

A literature search on relevant patient experience measures for prostate cancer diagnosis and care was conducted to find the most relevant measures that could be included or adapted in this evaluation. A broader search on patient experience with any cancer diagnosis (e.g., bowel cancer screening or breast cancer screening) or general health screening programmes was also later conducted. Based on these searches, the following measures were appraised:

- Prostate Cancer Questionnaire – Patient (PCQ-P)
- National Prostate Cancer Audit (NPCA)
- National Cancer Patient Experience Survey (NCPES)
- Friends and Family Test (FFT)
- Compassion and Relational Empathy Measure (CARE)
- NHS Health Checks

The appraisal of the above measures included whether they were applicable to the context of this evaluation, how current they were and whether we required a license to reproduce. The findings of this options appraisal are reported below:

- Existing cancer-specific measures (i.e., PCQ-P and NCPES) are very comprehensive and capture the patient journey very well. However, not all components or sections within these measures are relevant for this evaluation as not everyone would be diagnosed with prostate cancer and undergo treatment. For example, in the NCPES, only 2 of the 13 components are relevant for the patient survey. Yet, these areas may be relevant for the patient interview. There are also overlaps with these questionnaires (e.g., "GP visits and referral" in PCQ-P and "support from your GP practice" in NCPES).
- Existing cancer experience questionnaires also do not cover how patients first found out about their risk of being diagnosed with prostate cancer (which understandably is the novelty of this case finding pathway) and an area that needs to be included in the patient survey.
- A systematic review by Usher-Smith and colleagues (2017) involving the patient experience of NHS Health Checks identified 7 themes, which included time or opportunity to ask questions, location and timing of appointments and relationship with staff, to measure patient experience. These areas can be included in the survey.
- The broadness of the FFT questions (i.e., "how was your experience?" & "recommendation to friends & family") is useful to capture the general experiences of patients going through the pathway.
- CARE questions relate to general interactions with healthcare professionals and can be adapted to ask questions on how specific topics were communicated/explained.

4.3.2.2 Patient survey

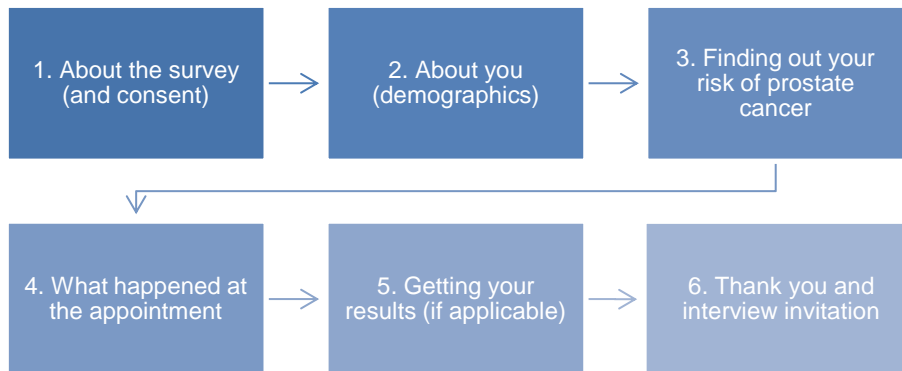
Based on the appraisal of these measures and discussions with NHS England and the three sites, it was decided that the focus of the survey should be on gaining insights into the patient's experiences during the primary care- or community-based activities of the pathway.

These involved the patient's experience of:

1. being identified or aware of their risk of prostate cancer,
2. undergoing PSA counselling and if they choose, PSA testing,
3. receiving their results.

A bespoke patient survey that was supported by existing measures, mirrored the activities within the pathway, and was patient-facing and flexible was developed. Questions involved a mix of closed and open questions and were adapted from the Prostate Care Questionnaire – Patient (PCQ-P), National Cancer Patient Experience Survey (NCPES) and National Prostate Cancer Audit (NPCA) measures, namely those that involved primary care or the community. The Friends and Family Test (FFT) questions were also adapted to measure general experience at different parts of the pathway. New questions on patient's experience of first being contacted or becoming aware of their risk of prostate cancer (e.g., NHS Health Checks) were identified and included in the survey. The survey also included routing to relevant questions depending on where patients were in the pathway (e.g., if they went ahead with a PSA test, if they were waiting for their results, if they already had their results).

Figure 3 Patient survey flow

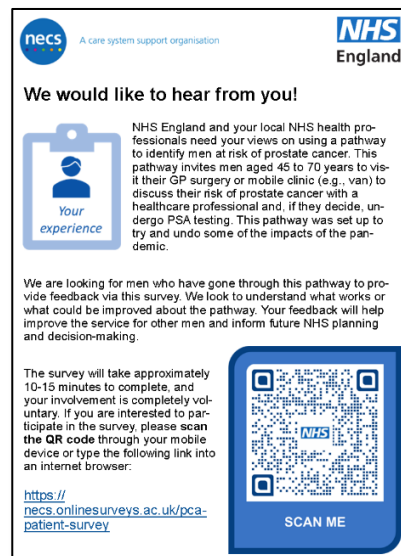


The survey was designed to include the experiences of both men who decided to undergo a PSA test and those who did not. Overall, the patient survey comprised 20 questions, which were the same for each site, took approximately 10 minutes for patients to complete, and was hosted on Online Surveys V2. The flow of the survey is shown in Figure 3 with the overall survey available in Appendix 4.

The evaluation team endeavored to ensure the survey was as accessible as possible to the men involved in the case finding pathway. This included the use of plain language in the questions asked and a physical version of the survey could have been made available should the sites or patients have requested this or if feedback had been received that the survey was inaccessible.

Site teams were asked to share and cascade the online survey directly with patients seen as part of their case finding pathway. Communication materials were created by the evaluation team, including wording for a text message (Appendix 4). and a patient leaflet (Figure 4). GM and RMP used a text message approach, collating and checking all eligible patients and then sending the message out piecemeal or on mass. Some men from RMP were also given a leaflet after their appointment on the van. Whereas the evaluation team worked to support MSE in a slightly different way, with the support of the MSE project manager, individual GP practices were asked to send out text messages to all patients seen as part of their pathway. This involved individual requests to the identified contacts at each GP practice, repeated email communication and some phone calls. Survey responses were monitored and reviewed regularly by the evaluation team, with a specific emphasis on troubleshooting low response rates and providing updates for each site.

Figure 4 Patient survey leaflet



The patient survey was live between 24th October 2023 and 12th February 2024. Following the closure of the survey, all responses were downloaded from Online Surveys V2 and analysed to provide an overall view of patient experience, as well as a summary of responses by site (Appendices 4a to 4c). 507 responses were initially obtained, but following data cleansing due to duplicate responses identified through patients' interest to be contacted for an interview (n = 5) and one response that did not specify which location they were part of the case finding pathway of, 501 responses were analysed. Specifically, 311 (62.1%) responses were from RMP, 146 (29.1%) from GM and 44 (8.8%) from MSE.

The respondent characteristics are reported below:

- Most respondents, or 65.7%, were between 55 to 69, where there was a relatively equal spread of men between the 55-59, 60-64 and 65-69 age groups at 23%, 20.6% and 22.2% respectively. 15.6% of respondents were between 50-54, while 10.8% were between 70-74.
- 62.1% of men who responded to the survey were of white ethnic background. 27.3% were of black ethnic origin, followed by 4.8% who were Asian, 3.6% who were mixed and 1.4% who identified as "Other ethnic group."
- Nearly 3 in 5, or 58.3%, of the respondents did not have a family history of prostate cancer, breast cancer or ovarian cancer. 33.7% reported having a family history while 8% were unsure.

Descriptive statistics from the survey are reported in the respective evaluation questions in Section 7 below, while broader themes on patient experience are reported in Section 7.4.2.

4.3.2.3 Patient interviews

This evaluation component focused on understanding the experience of patients who have undergone the entire case-finding pathway. One-to-one interviews with patients, using a semi-structured topic guide (Appendix 5) were conducted via telephone. The telephone interviews were audio recorded using OBS software and transcribed verbatim. The interview covered patient's experiences in the following areas in more depth to cover experiential elements of the pathway (i.e., how patients felt or what they thought about specific parts of the pathway) that were not covered in the patient survey:

1. finding out their risk of prostate cancer
2. speaking to a clinician and undergoing a PSA test (if they went ahead with one)
3. receiving their results and what happened next (i.e., whether they were referred to secondary care, had more tests carried out in their GP or safety netted/ discharged)

Figure 5 describes the overall process followed to recruit patients for interviews. At the end of the patient survey, patients were asked if they would be willing to participate in a one-to-one interview about their experiences of the case finding pathway. This approach yielded 218 volunteers for interviews, which is 43.5% of those who completed the survey. Out of those who volunteered, 173 patients were emailed the participant information sheet and online consent form hosted on Online Surveys V3. 68 patients then provided consent to participate in an interview; however, only 45 were contacted to schedule an interview. Interviews were scheduled in line with patients' stated availability. Some patients did not proceed to the next step as a targeted approach to speak to patients based on a sampling matrix (see Table 3) – developed through discussion and feedback from NHS England and the sites – was employed. Recruitment for interviews began on 12th December 2023 and closed on 12th February 2024.

Figure 5 Patient interview flow



The sampling matrix was used as best-case scenario to ensure the different experiences of men were captured in this evaluation based on their risk factors and PSA outcomes. Of note, some men did not have any of the risk factors (two of whom were diagnosed with prostate cancer, each from MSE and RMP); the evaluation team felt that it would still be good to hear from a few of them. Three attempts at interviewing men who did not go ahead with a PSA test were undertaken; unfortunately, after scheduling a suitable time, patients either were not sure what the PSA test was, did not want to be recorded or were unreachable when

contacted. Through this process as well, some emails were sent to the evaluation team from patients about their experience of case finding. Two emails from patients who met the evaluation sampling/recruitment criteria were included as data.

Table 4 Number of participants based on the sampling matrix

Risk factor		Men aged 50 or older with family history of prostate cancer	Men of black ethnic origin who are 45 and above	No risk factors
PSA outcomes	Referred to secondary care	4	0	3
	Referred to the GP	1	0	0
	Safety netted & Discharged	12	10	4
	Did not go ahead with a PSA test	0	0	0

In total, 34 interviews, which lasted between 8 to 50 minutes, with an overall average of 19 minutes, were conducted with men from across the three sites (RMP = 13, GM = 11, MSE = 10). The participant characteristics are reported below with the full list of participant information available in Appendix 5:

- There was an equal spread of patients, or 7 patients each, from the following age groups: 50-54, 55-59, 60-64 and 65-69.
- Most patients were white (n = 22), followed by black (n = 10) and mixed ethnic background (n = 2). The proportion of men interviewed based on their ethnic background is similar to the proportion who completed the patient survey.
- Most men had a family history of prostate cancer, breast cancer or ovarian cancer (n = 19), followed by no history (n = 13) and not sure (n = 2).
- 26 were safety netted and discharged from the pathway, while 7 were referred to secondary care for further investigation. 1 patient was referred to their GP.

Thematic analysis of all patient interviews was conducted on NVivo, with key descriptors, such as site, ethnic background, family history of prostate cancer and outcome, being incorporated into the analysis. Common themes derived from the interviews are reported in the respective evaluation questions in Section 7 below where relevant, while broader themes on patient experience are reported in Section 7.4.2.

4.3.3 Staff experience: Interviews and focus groups

A further qualitative component of the evaluation involved capturing the experiences of staff members who delivered the case finding pathway in their respective areas, via interviews or focus groups. Interviews and focus groups took the form of semi-structured discussions, facilitated using a topic guide (Appendix 6). Interviews and focus groups focused on exploring the experiences of clinical staff who had been involved in identifying and inviting patients, conducting PSA counselling and PSA testing, and delivering the results.

The evaluation team worked with staff from each site to identify relevant staff either clinical or non-clinical, with the aim of speaking to four to seven staff members per site, who had been involved in the following activities:

1. Patient identification, invitation, and appointment booking,
2. PSA counselling and PSA testing,
3. Delivery of results and clinical outcomes (e.g., referral to secondary care, further testing at the GP etc.), and/or

4. Further testing in secondary care (e.g., mpMRI, biopsy etc.) and prostate cancer diagnosis and treatment.

Subsequently, an email invite was cascaded to the identified staff and if they were interested in taking part in the evaluation, after reading the information provided, they were asked to complete a consent form. The online consent form was hosted on Online Surveys V3 and asked staff to provide further information about their role, contact details and availability.

Two focus groups were conducted with groups of staff from GM (n = 5) and RMP (n = 5), and individual interviews were conducted with primary care staff from MSE (n = 4). Focus groups lasted 1 hour, while interviews took around 30 minutes. Another focus group that took 40 minutes with consultant urologists (n = 2) who ran the results clinic at GM was also later conducted. In addition, secondary care staff were also interviewed, which took on average 20 minutes, as part of this evaluation with 2 staff from each site being interviewed.

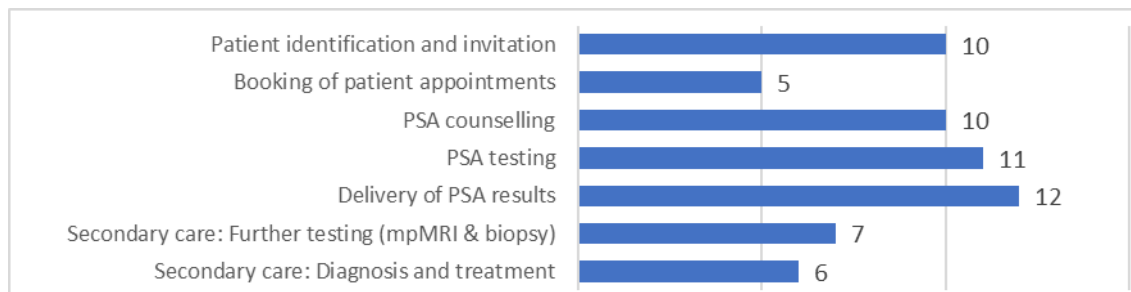
Despite a pool of nearly 30 primary care staff who were involved in the project in MSE, getting them to provide consent and participate in this evaluation proved challenging. Repeated mass and individualised communications to the relevant staff were undertaken with some staff responding that they were facing challenges in getting the project running, did not have the capacity to be involved in an evaluation and had a later start date. Fortunately, email feedback from two members of staff in MSE were also received and used as data.

Interviews and focus groups were recorded using Microsoft Teams and transcribed verbatim. The transcripts were coded and thematically analysed using NVivo software. Common themes derived from the focus groups and interviews are reported in the respective evaluation questions in Section 7 below, while broader themes on staff experience are reported in Section 7.4. Some insights are reported in Section 5 (Project Profiles) below.

In total, 22 staff were involved in this component of the evaluation. The participant characteristics are reported below with the full list of participant information available in Appendix 6:

- Staff based in primary care or on the van (n = 16) had a range of clinical and non-clinical roles: Clinical Nurse Specialist, Phlebotomist, Support Worker, GP, Consultant Urologist, Data Quality Team Lead, Service Manager, Physician Associate and Project Support Officer.
- Staff based in secondary care (n = 6) also had a range of roles: Advanced Nurse Practitioner, Consultant Urologist, Urology Clinical Nurse Specialist, Uro-Oncology Nurse Consultant and MDT coordinator.
- The involvement of staff with the pathway is shown in Figure 6 below:

Figure 6 Staff involvement in the pathway



4.3.4 Implementation learning: Focus groups

The final component of the qualitative workstream aimed to capture the experiences and implementation learning of staff from each site who had been managing and implementing the case finding pathway. Additionally, the evaluation team aimed to compare and contrast

site experiences in implementing the project pathway. Open questions with prompts focused on:

- What are the experiences of staff managing the service? E.g., getting the models off the ground, engaging/recruiting staff etc.
- What were the challenges of introducing the pathway?
- What were the lessons learnt from the project?

In January and February 2024, focus group sessions were arranged for each site which took advantage of the standing fortnightly project meetings in place between the evaluation team and the sites. An email invite, which included the participant information sheet and the online consent form hosted on Online Surveys V3, was cascaded to the relevant staff. Three focus groups were conducted with staff involved in the programme management of the case findings pathway. Focus groups lasted 1 hour, recorded using Microsoft Teams and transcribed verbatim. The transcripts were coded and thematically analysed using NVivo software. Common themes derived from the focus groups are reported in Section 7.4 below and when relevant, included in the Project Profile (Section 5) below.

In total, 10 staff – GM (n = 3), RMP (n = 3) and MSE (n = 4) – were involved in this component of the evaluation. The participant characteristics are reported below with the full list of participant information available in Appendix 6:

- Staff had a range of clinical and non-clinical roles: Service/Project Manager, Consultant Urologist, BI Information Lead, Clinical Business Unit Manager, Senior Primary Care Oversight and Assurance Manager, Head of Clinical Systems, Urology Clinical Nurse Specialist and Primary Care Cancer Lead in the ICB
- Some staff from the evaluation component above were involved in this component, mainly from their operations perspective.

Table 5 Summary of data collected across qualitative evaluation components

Data collection	GM	MSE	RMP	Total
Patient experience				
Patient survey	146	44	311	501
Patient interviews	11	10	13	34
Email feedback	2	0	0	2
Staff experience				
Mobile van focus groups / Primary care interviews	7	4	5	16
Secondary care interviews	2	2	2	6
Email feedback	0	2	0	2
Implementation learning				
Programme team focus group	3	4	3	10

5. Development & delivery of prostate cancer case finding: Project profiles

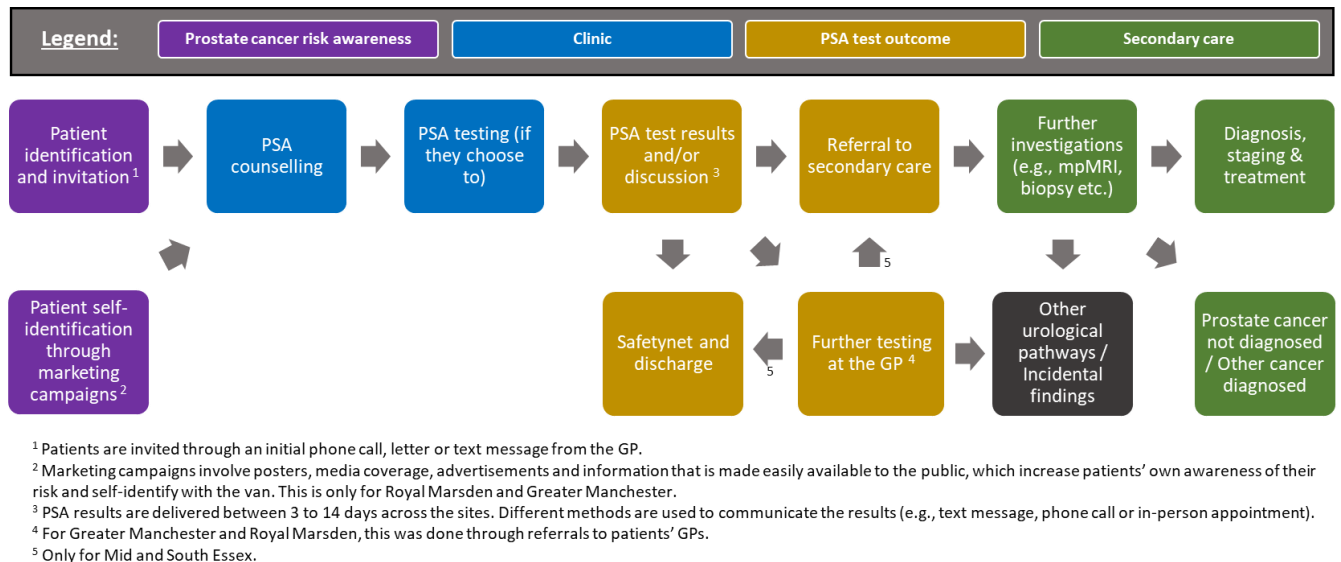
GM and RMP used a mobile van to find men who were at risk of prostate cancer, while MSE employed a GP-based approach. In general, all sites took a similar approach through the following steps (Figure 7):

1. Identifying and inviting patients who were at risk of prostate cancer, or *prostate cancer risk awareness*.
2. Appointment *at the clinic*, which involved PSA counselling and PSA testing.
3. Delivery of the PSA results and what happened next, or *PSA test outcomes*.
4. Referral to *secondary care* (if required).

There were, however, slight differences in how each site operationalised the pathway within their local context. Exploring these differences is the primary aim of this section.

There were also parts of the pathway first outlined by NHS England (see Appendix 1) that were not adopted and are worth noting in this report.

Figure 7 Overall comparison of prostate cancer case finding pathway across Mid and South Essex, Royal Marsden Partners and Greater Manchester. Individual site profiles are available in Appendix 3.



First, when running tests at the clinic, all sites offered a PSA test, but there was variation in the other tests or investigations carried out. For example, only RMP used the International Prostate Symptom Score (IPSS) questionnaire as part of the clinical examination. Next, none of the sites conducted a digital rectal examination as part of prostate cancer testing due to practical reasons, such as space on the van and minimising any invasive procedures. Different procedures were in place across the sites concerning dealing with the PSA results, namely when patients were asymptomatic, and the PSA reading did not reach a specific threshold. More details on individual site profiles and the approach each site took are available in Appendix 3.

5.1 Prostate cancer risk awareness

Patients were made aware of their risk of prostate cancer through active searches in GP records based on certain risk factors or through marketing campaigns designed to raise awareness of these risk factors in communities. However, only RMP and GM projects had a structured marketing and communications programme in place to spread the word about the pathway.

The at-risk group targeted in this pathway were 1) black men who were 45 and above, and 2) men who were 50 and above with a family history of prostate cancer. While MSE followed this search criterion, RMP and GM adapted this criterion and invited men based on the following:

- RMP: men who were 45 and above for a “health check”
- GM: men who were 45 and above and of black ethnic origin; and men who were 45 and above with a family history of prostate, ovarian or breast cancer, or Jewish men.

GM chose to include men with mothers or sisters with breast or ovarian cancer as both cancer types are linked to the BRCA gene mutations, which are also found to increase the risk of an individual developing prostate cancer. This was also found to be the case for Jewish men who were more likely to carry the BRCA gene mutation.

Across the sites, patients were identified through GP system searches. GM, for example, had their Primary Care Data Quality Team set up data searches which were run in each GP practice across Greater Manchester, providing practices with named lists of ‘at risk’ patients. Templates from SystmOne in MSE were also developed by the Arden & Gem CSU Clinical Systems team to assist GPs/PCNs with identifying and inviting patients to an appointment.

Patients were invited to the clinic through several means where they were required to book an appointment if they wanted to see a clinician. Specifically, MSE invited patients either through phone calls or letters (Figure 8) which were generated via SystmOne, while RMP and GM invited patients through text messages (Figure 9). MSE built templates within SystmOne and produced a case finding booklet for the PCNs to facilitate and support staff in finding individuals who were at risk of prostate cancer. Patients could book their appointment via phone call, email or an online form.

Figure 8 Invitation letter by MSE

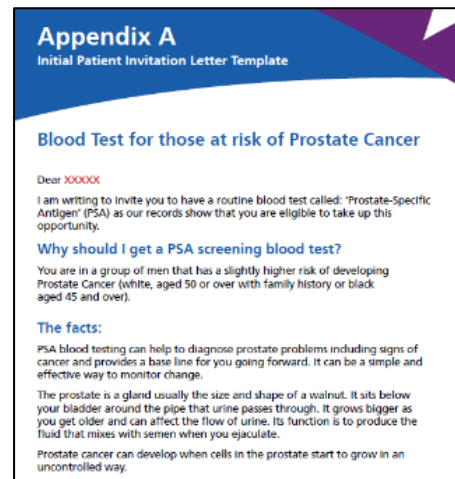


Figure 9 Text message invite through the This Van Can project by Greater Manchester

“We know some patients are at a higher risk of prostate cancer. You are at a higher risk if you are over 45 and black (African Caribbean) or if you are over 45 and your dad or brother was diagnosed with prostate cancer under the age of 55.”

If you fall into these categories and would like to discuss your risk in more detail with a clinician, the Greater Manchester Cancer Alliance NHS prostate cancer awareness van – This Van Can - is coming to [insert area] on [insert date]. To visit the van you need to book an appointment in advance by calling 07974 074 111. You can find out more here: <https://bit.ly/ThisVanCan-GP>. Alternatively, you can contact your GP to discuss your risk of prostate cancer.”

RMP and GM had a bigger communication and marketing approach to increase men’s awareness of prostate cancer. These included:

- establishing an official project website and communication channel (e.g., email, telephone line)
- producing posters
- appearing on national television (e.g. Steph's Packed Lunch or BBC)
- publishing YouTube videos and materials for social media
- the van itself acted as a promotional tool to raise awareness about prostate cancer

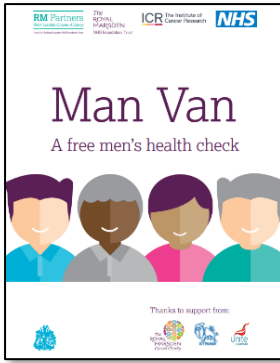


Figure 10 Leaflet shared to patients on The Man Van by Royal Marsden Partners

Due to the extensive promotional campaign conducted, there was the possibility of men self-identifying at these locations. MSE opted to not have a large-scale, ICB-wide promotional campaign of the pathway to give each PCN the flexibility and autonomy to decide what approach they should take with promoting the pathway. This non-prescriptive approach was also to minimise any confusion among the public as not all PCNs were involved in the delivery of the pathway. Each PCN would carefully market the pathway based on their own strategies.

5.2 At the clinic (PSA counselling and testing)

During the appointment, which lasted between 20 to 30 minutes, PSA counselling first took place with clinical staff to discuss prostate cancer diagnosis, the pros and cons of the PSA test, and what to expect after the PSA test. Informed patient choice was prioritised when discussing options for patients to consider as a result of their risk factors. Most patients continued with a PSA test after this conversation; however, some patients did not have a PSA test. No major differences were observed in how each site conducted PSA counselling with patients.

While the offer of a PSA test is consistent across the sites, MSE and RMP had more tests carried out before referring patients to secondary care. MSE included the estimated glomerular filtration rate (eGFR) and urea and electrolytes (U&E) tests as part of this appointment to rule out any urine infection. RMP, on the other hand, carried out the HbA1C and mid-stream specimen of urine (MSU) tests alongside using the IPSS and International Index of Erectile Function (IIEF-5) questionnaires to inform their clinical decision.

5.3 PSA test outcomes

After the appointment, staff from the sites reported that PSA results were delivered within 3 to 14 days across the different sites. Specifically, MSE staff aimed to return the results to patients between 7 to 10 days, while the GM team's goal was between 7 to 14 days. The RMP project had the fastest turnaround time with 3 days (with a maximum of 7 days) to get the results back to patients.

Results were delivered either through text messages, phone calls or in-person appointments, but this differed according to site. For RMP, when the PSA result was positive, a telephone call to the patients would be conducted by one of the nurses on the van, where patients would then be guided on the next steps and their referral to the Royal Marsden Rapid Diagnostic Centre. Those with a negative result would receive a text message. GM ran "results clinics" involving consultant-led telephone calls to all patients regardless of their results and sent letters of the results to the patients for their records. MSE gave PCNs/practices the option of their delivery method, which ultimately depended on their existing practice of delivering any result.

Patients would receive one of the three outcomes below:

1. Referral to secondary care for further investigation
2. Further testing at the clinic (for MSE) or referral to the GP (for GM and RMP)
3. Safety netted and discharged

There seemed to be variation in how decisions were made about onward referral and what thresholds were used. RMP had a lower threshold from NICE guideline (NG12) to refer patients to secondary care due to no physical examinations on the van. MSE also either followed the NICE, East of England or local guidelines. This information was reported by clinical and implementation staff during project profile discussions, and interviews/focus groups. As such, evaluators do not have specific information on the clinical guidelines/thresholds used at each site, however it is important to note the range of different clinical guidelines that staff had to consider when implementing the project. Staff thoughts on this are shared further in Section 8.3 below.

Sites had different protocols for what happened next to patients. MSE would conduct a follow-up PSA test 4 weeks after the first test to rule out any infection. RMP would refer to the patient's GP if abnormal HbA1C or MSU results were received. GM would also refer to the patient's local GP for further urological testing.

5.4 Secondary care

Once patients were referred on the urgent suspected cancer pathway, their experience would be no different from other prostate cancer referrals to secondary care. Patients would be referred to their local hospitals for further testing which may involve mpMRI and biopsy. As part of this further investigation, they may also be referred to other urological pathways, be diagnosed with other conditions or be ruled out of having prostate cancer. When patients are diagnosed with prostate cancer together with the cancer staging, patients would then be guided with the next steps relating to treatment and the prospect of living with cancer. Sites were also committed to the 62-day target for a confirmed diagnosis and treatment start date. No major adjustments or differences were observed with this part of the pathway.

Figure 11: Secondary care referral form used by Mid and South Essex

Appendix C Prostate Case Findings Pilot Two Week Wait Referral Form	
PROSTATE CASE FINDINGS PILOT – SUSPECTED CANCER TWO WEEK WAIT REFERRAL FORM	
Date of GP decision to refer:	No. of pages sent:
NOTE: This form is ONLY for use for patients who are eligible to participate in the NHSE Prostate Case Findings Pilot.	
PILOT INCLUSION REFERRAL CRITERIA	
Invite a target cohort of at-risk men for a PSA counselling conversation and onward PSA testing: Please indicate:	
Black Men aged 45-70 with or without a family history of Prostate Cancer (men who are of black ethnic origin – lifetime risk of 1 in 4 compared to 1 in 8 for white men)	<input type="checkbox"/>
Caucasian Men aged 50-70 with family history of Prostate Cancer	<input type="checkbox"/>
INFORMATION PROVIDED TO PATIENT (To be provided by referring Clinician) Please tick	
Patient has been informed that cancer needs to be excluded	<input type="checkbox"/>
Patient has been given information regarding the cancer pathway	<input type="checkbox"/>
Patient understands that they may go straight to a diagnostic test at the hospital	<input type="checkbox"/>
Patient has confirmed they are available for the next two weeks (including weekends)	<input type="checkbox"/>

5.5 Implementation team & relevant stakeholders

Across the sites, a central implementation and wider implementation team, or stakeholders, are observed. Central implementation team involved:

1. Project manager or Service manager – all aspects of service delivery, organisation, persistence, communication, MSE – submitted the bid, "open door" and prompt response.
2. Operations manager – wider portfolio in which case finding sits, financial/budgetary responsibilities,
3. Clinicians – urology fellow, consultant, lead CNS - set up, develop pathways and ongoing clinical support to the team, phlebotomist, GP, ANP, physician associate,

Wider implementation team involved:

1. Cancer clinical leads across ICB x4
2. Business intelligence and clinical systems support for project and GP practices (Cancer Alliance for GM and Arden & GEM CSU for MSE)

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3. Creation and testing of reports to capture data on patients who have been through the project,
4. Creation of patient searches, instructions for bulk first and second letters, and template to capture data, available for queries from practices or project manager,

Key stakeholders:

Across the three implementation focus groups, staff members from the sites described the following key stakeholders and the importance of their role in implementing case finding as well as key areas in which these stakeholders could provide support.

Stakeholder	Key role or area of support
Cancer Alliance	Operational Intelligence, Comms & engagement "Huge amount of resource" (GM) For RMP, they noted there was some uncertainty regarding the role of the Cancer Alliance: "Before this project started, I'd never heard of a Cancer Alliance, I don't know what a Cancer Alliance actually did. Obviously, these organisations have had various names for some time, but at least in its current guise, I have no idea what it was responsible for, and how things worked".
Primary care networks/teams/managers	Task & finish group members/steering group, "A really importance resource to develop this project & drive it moving forward" (GM), PCN managers "very key contact if you want to send text messages to the patients"
<ul style="list-style-type: none"> • Voluntary sector organisations • Local community/venues & staff (e.g., leisure centres, local councils) • Champions or key figures (e.g., Mayor) 	Steering group members "Really helped us to drive the project & make sure that it was going to be appropriate for our target audience" (GM), "So, having a champion or someone who's really high profile in the borough does help" (RMP).
Contractors (e.g., EMS in GM)	Support in terms of booking venues, Support with "last minute changes of staff members if needed", (GM)
ICBs	Support & understand the needs of the borough/area (RMP)
Public health	"They have a very niche contact already in the community, they have events going on, and they're very good at promoting, because what really helped was promoting to the community rather than sending a text message. So, promoting in the community does help significantly than a text message. If you want a deprived population or black ethnicity, text messages, maybe 10% we got, I'm not sure, but if you promote it in a barber shop or something rather like that, you might get more individual coming to us, because word of mouth spreads" (RMP).
Secondary care	Communication & tracking patients/referrals

5.6 Summary of differences

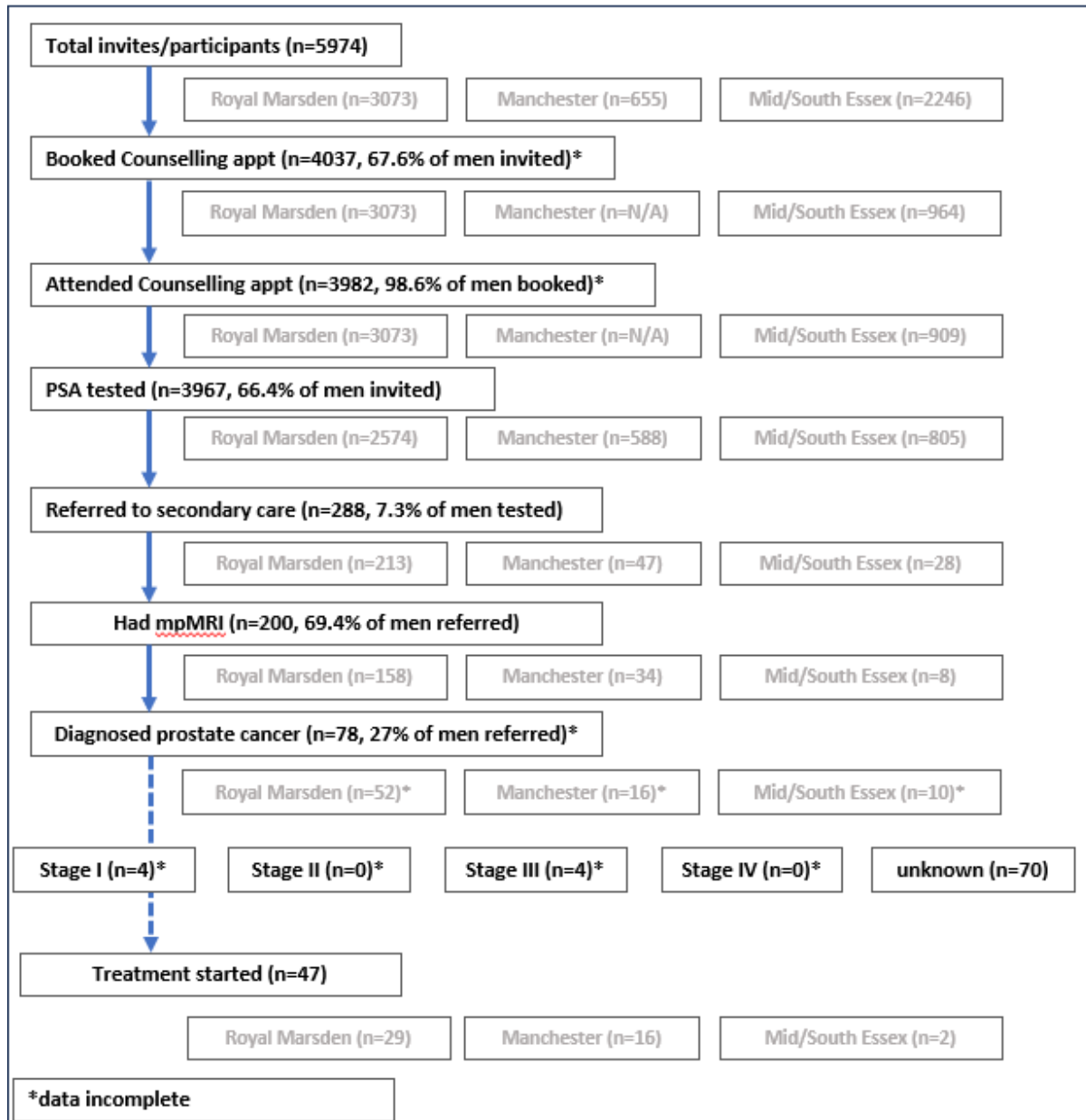
Table 6 Key differences between sites along the pathway

	Greater Manchester	Royal Marsden Partners	Mid and South Essex
Search criteria	Men who were 45 and above and of black ethnic origin; and men who were 45 and above with a family history of prostate, ovarian or breast cancer, or Jewish men.	Men who were 45 and above for a "health check"	Men who were 45 and above and of black ethnic origin; and men who were 50 and above with a family history of prostate cancer
Marketing approach	Structured (e.g., posters, YouTube videos, appearances on local and national media)	Structured (e.g., posters, YouTube videos, appearances on local and national media)	None
Patient identification	System searches through GPs	System searches through GPs	SystmOne patient searches
Invitation method	GP text message & self-identification	GP text message & self-identification	Initial phone call, letter or text message (depending on each PCN)
Tests in the clinic	PSA test only	PSA, HbA1C and MSU tests and the IPSS and IIEF-5 questionnaires	PSA, eGFR and U&E tests
PSA results turnaround time	7-14 days	3 days (but max 7 days)	7-10 days
Method of communicating the PSA results	Consultant-led telephone calls to patients regardless of the results, and a letter to patients	Text messages to patients with a negative result and had nurse-led phone calls to patients who were referred for further testing.	Provided options to patients but depended on each PCN/practice's existing approach to delivering any result
PSA outcomes	Referral to secondary care for further testing based on NICE guideline; would refer to GP but unclear for what and when.	Referral to secondary care is below the NICE threshold due to no physical examination on the van. Referral to the GP for abnormal HbA1C or MSU results.	Referral to secondary care based on either local or NICE guidelines. If negative PSA results, a follow-up testing 4 weeks after the first test would be offered.
Secondary care	Same urgent suspected cancer pathway	Same urgent suspected cancer pathway	Same urgent suspected cancer pathway
Overall delivery approach	MDT approach as different healthcare professionals were involved; centralised approach.	Nurse-led delivery; centralised approach. RMP had begun using the man van prior to taking part in NHS England case finding project.	MDT approach, which is GP-led, but PCN-specific.

6. Findings overview

Patient-level data has been analysed to provide an overview of activity along the prostate cancer pathway. This analysis is used throughout section 7 to underpin the answers to the specific evaluation questions.

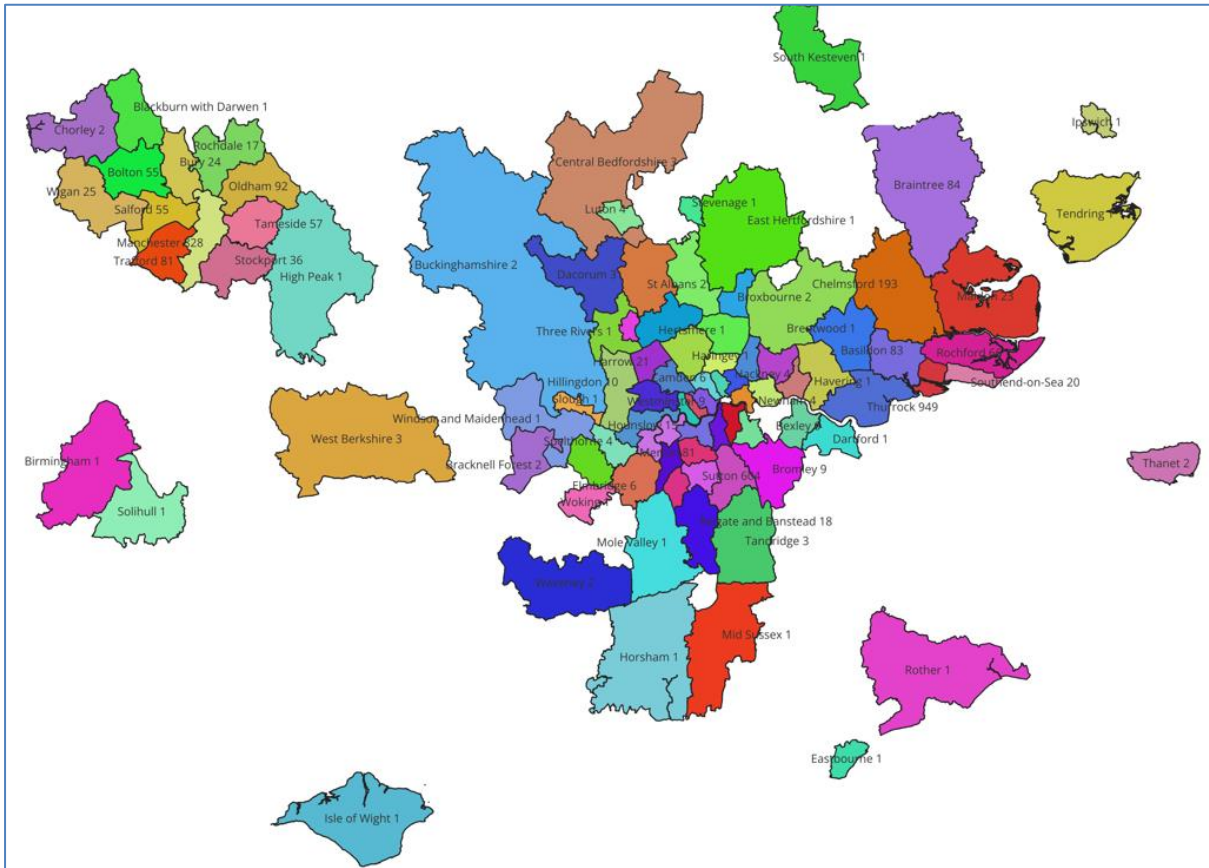
Figure 12 Overall data by site



6.1 Demographic analysis

Across all project sites, there were 5,974 men invited, and/or seen and assessed within the services covered by the project between January 2023 and February 2024.

Figure 13 Geographical distribution of project cohort



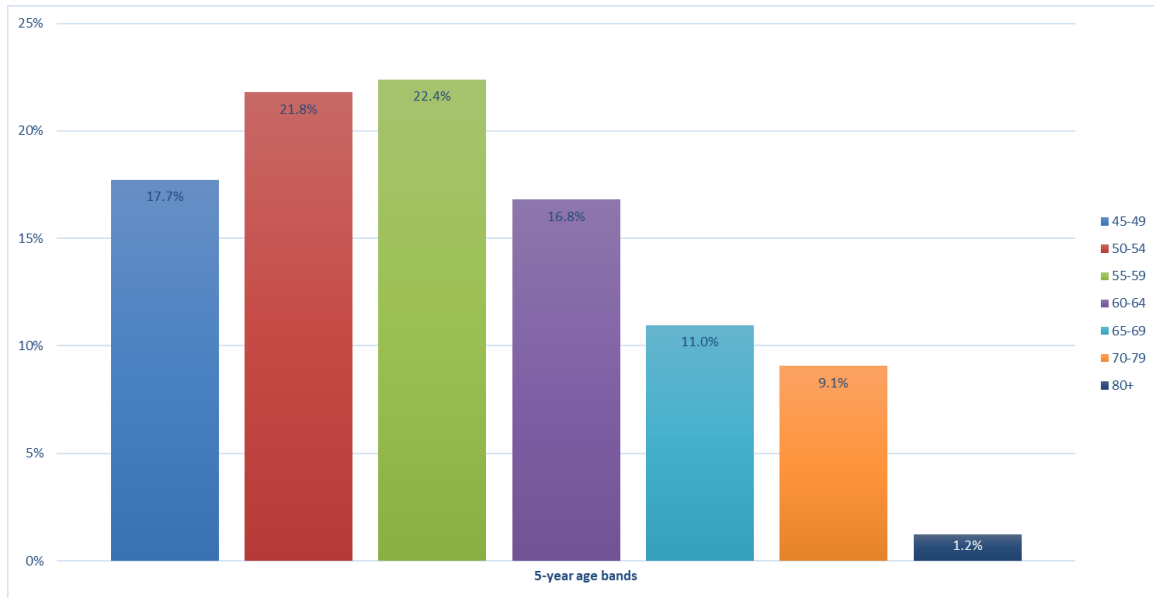
Barking and Dagenham 2	Hammersmith and Fulham 376	Salford 55
Barnet 16	Haringey 1	Slough 1
Basildon 83	Harrow 21	Solihull 1
Bexley 6	Havering 1	South Kesteven 1
Birmingham 1	Hertsmere 1	Southend-on-Sea 20
Blackburn with Darwen 1	High Peak 1	Southwark 6
Bolton 55	Hillingdon 10	Spelthorne 4
Bracknell Forest 2	Horsham 1	St Albans 2
Braintree 84	Hounslow 15	St Albans 2
Brent 272	Ipswich 1	Stockport 36
Brentwood 1	Isle of Wight 1	Sutton 604
Bromley 9	Islington 2	Tameside 57
Broxbourne 2	Kensington and Chelsea 67	Tandridge 3
Buckinghamshire 2	Kingston upon Thames 9	Tendring 1
Bury 24	Lambeth 41	Thanet 2
Camden 6	Lewisham 6	Three Rivers 1
Castle Point 111	Luton 4	Thurrock 949
Central Bedfordshire 3	Maldon 23	Tower Hamlets 3
Chelmsford 193	Manchester 173	Trafford 81
Chorley 2	Merton 81	Waltham Forest 4
Croydon 494	Mid Sussex 1	Wandsworth 117
Dacorum 3	Mole Valley 1	Watford 5
Dartford 1	Newham 4	Waverley 2
Ealing 752	Oldham 92	Welwyn Hatfield 1
East Hertfordshire 1	Redbridge 5	West Berkshire 3
Eastbourne 1	Reigate and Banstead 18	Westminster 9
Elmbridge 6	Richmond upon Thames 6	Wigan 25
Enfield 1	Rochdale 17	Windsor and Maidenhead 1
Epping Forest 1	Rochford 66	Woking 1
Epsom and Ewell 17	Rother 1	
Hackney 4	Runnymede 2	

These men were registered at GP practices across the regions covered by the project. This map shows the local authorities containing these practices with the count of men from each authority in the legend. (Note that the 3 project areas are shown in the same view and their geographical proximity is not intended to be accurate)

6.1.1 Age

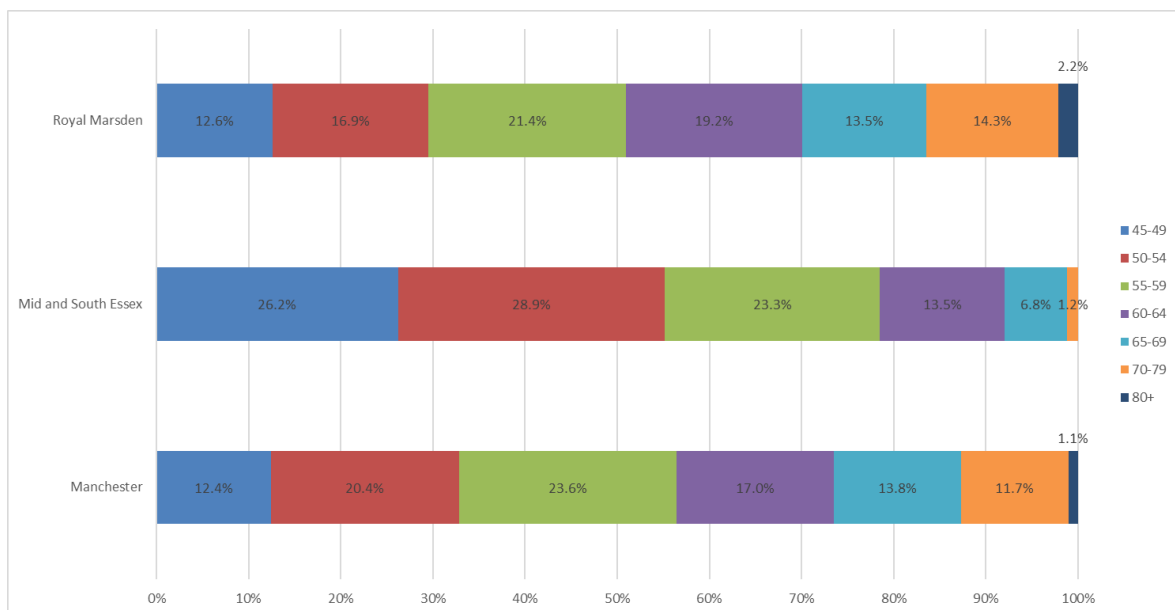
Of the 5,974 men in the project cohort, the age distribution is shown in the figures below. As defined as part of the inclusion criteria, only men over 45 years were invited to participate. The data shows a fairly even split across each 5 year age band up to the age of 80 years.

Figure 14 Age distribution of project cohort



Analysing age distribution by site, we see generally a similar picture. For Mid and South Essex however, there is a generally younger age profile with higher proportions in the younger age bands and very few men over 70 years.

Figure 15 Age distribution of project cohort by site



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To assess how similar the age profile of the targeted group of men was to that of the local authorities in the catchment area of the project site, the relative proportions of each 5-year age band in the project and within the local authorities were calculated. This analysis is shown below. This shows that in general the age distribution of the project cohorts was younger than the general population. For example, for the Manchester site, 73% of men were between 45 and 64, whereas in the general population the figure is 63%.

Table 7 Comparison of project cohorts with Local authority estimates

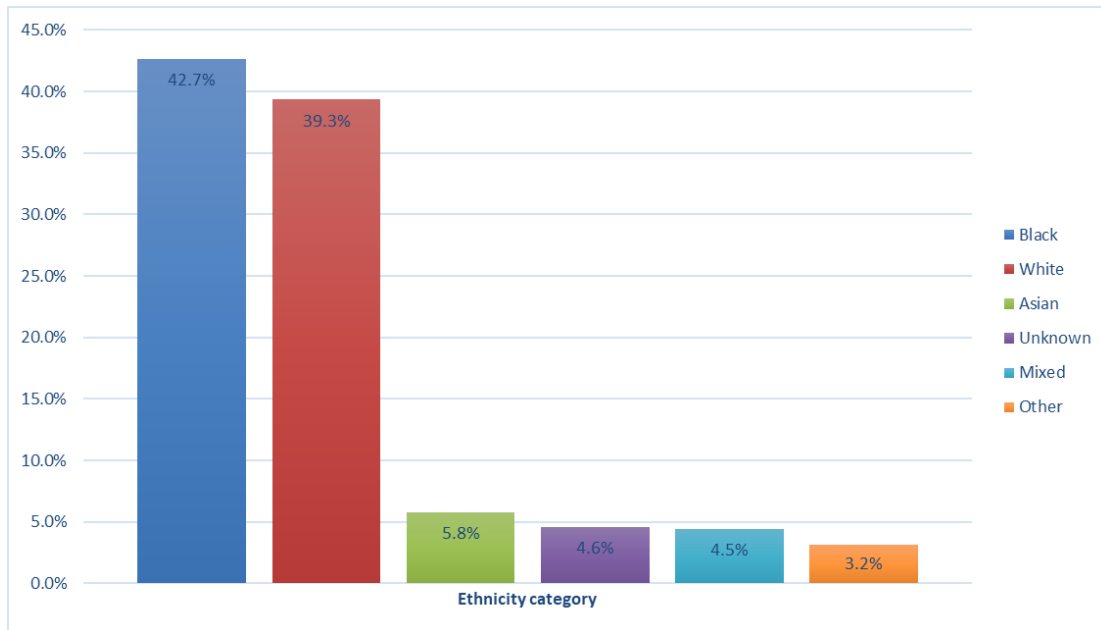
Values	Manchester project	'Manchester' local authorities	Mid and South Essex project	'Mid and South Essex' local authorities	Royal Marsden project	'Royal Marsden' local authorities
45-49	12%	16%	26%	16%	13%	18%
50-54	20%	17%	29%	17%	17%	17%
55-59	24%	16%	23%	16%	21%	16%
60-64	17%	13%	14%	13%	19%	13%
65-69	14%	11%	7%	11%	13%	10%
70-74	8%	10%	1%	11%	9%	9%
75-79	4%	7%	0%	8%	5%	7%
80-84	1%	5%	0%	5%	2%	5%
85+	0%	3%	0%	4%	0%	4%
Total	100%	100%	100%	100%	100%	100%

6.1.2 Ethnicity

Of the 5,974 men in the project cohort, 42.7% were of Black ethnicity, 39.3% were White, 5.8% were Asian, and 4.5% of Mixed origin with the remainder in other ethnicity categories or unknown. This is consistent with the intent to target

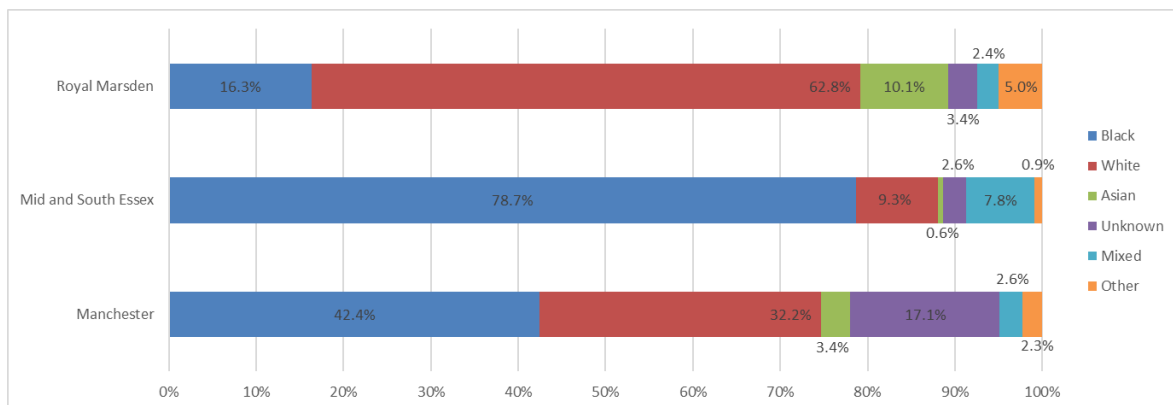
- Men of black ethnicity
- Men of any ethnicity with a family history of prostate cancer

Figure 16 Ethnicity of the project cohort



The split across the three sites is shown in the figure below, showing a marked difference in the proportions of black ethnicity (RM – 16.3%, MSE – 78.7%, GM – 42.4%) and white ethnicity (RM – 62.8%, MSE – 9.3%, GM – 32.2%). The lower proportion of black ethnicity in the Royal Marsden population is due to the broader criteria used as Royal Marsden used only age, mainly as they were performing a wider health-check and not just looking to diagnose Prostate Cancer.

Figure 17 Ethnicity of the project cohort by site



A comparison of the ethnicity profile of the project cohort with the ethnicity profile of the nearest Local Authority for each site is shown in Table 7 below. The key differences are highlighted in green. This does indicate that at both Manchester and Mid and South Essex

sites, they were effective in their attempts to target men of black ethnicity. The ratio of men of black ethnicity to men of white ethnicity is much higher than in the represented local authority population.

Table 8 Comparison of ethnicity profile of sites with their local authorities

Ethnicity	Manchester	'Manchester' local authorities	Mid and South Essex	'Mid and South Essex' local authorities	Royal Marsden	'Royal Marsden' local authorities
Asian, Asian British or Asian Welsh: Bangladeshi	0.3%	3.0%	-	2.4%	0.5%	2.2%
Asian, Asian British or Asian Welsh: Chinese	0.2%	1.0%	-	0.7%	1.5%	1.0%
Asian, Asian British or Asian Welsh: Indian	1.2%	3.3%	0.2%	4.8%	5.5%	5.8%
Asian, Asian British or Asian Welsh: Pakistani	1.1%	7.2%	0.0%	3.1%	0.9%	4.2%
Asian, Asian British or Asian Welsh: Other Asian	0.6%	1.5%	0.4%	1.9%	1.7%	3.1%
Black, Black British, Black Welsh, Caribbean or African: African	27.6%	4.0%	38.9%	4.2%	8.1%	4.8%
Black, Black British, Black Welsh, Caribbean or African: Caribbean	11.6%	0.9%	4.2%	1.1%	7.2%	2.5%
Black, Black British, Black Welsh, Caribbean or African: Other Black	3.2%	0.7%	35.6%	0.8%	1.0%	1.1%
Mixed or Multiple ethnic groups: White and Asian	0.2%	0.8%	0.1%	0.8%	0.7%	1.3%
Mixed or Multiple ethnic groups: White and Black African	0.8%	0.6%	3.0%	0.5%	0.1%	0.6%
Mixed or Multiple ethnic groups:	0.6%	1.0%	2.0%	0.9%	0.7%	1.3%

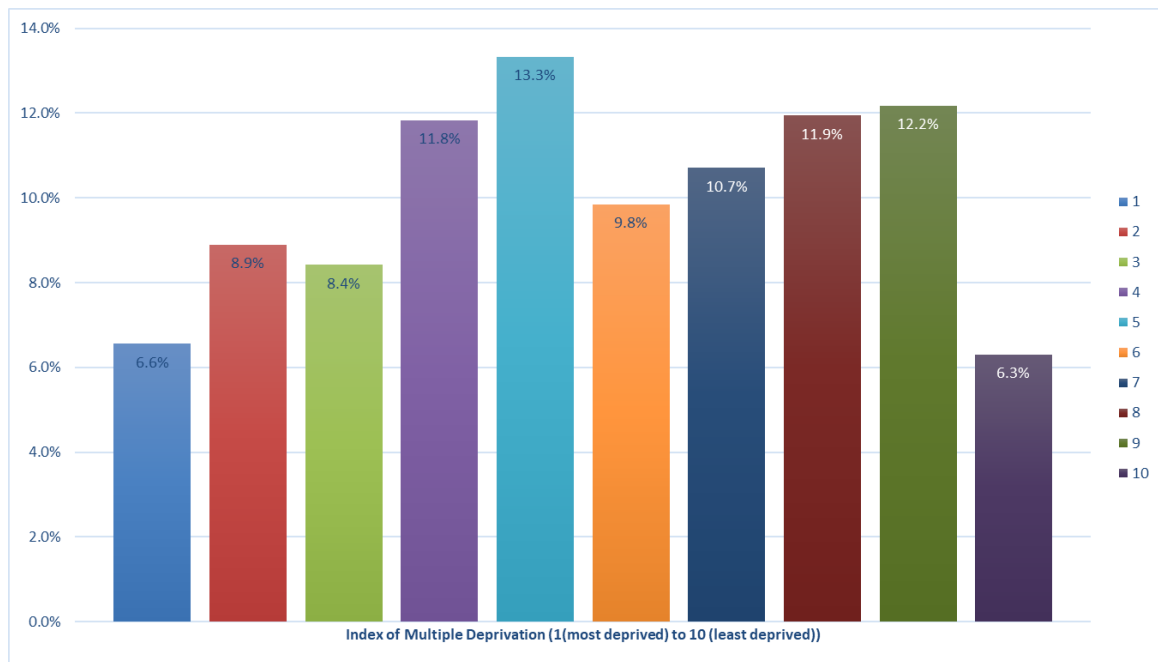
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Ethnicity	Manchester	'Manchester' local authorities	Mid and South Essex	'Mid and South Essex' local authorities	Royal Marsden	'Royal Marsden' local authorities
White and Black Caribbean						
Mixed or Multiple ethnic groups: Other Mixed or Multiple ethnic groups	1.1%	0.7%	2.7%	0.8%	1.0%	1.4%
White: English, Welsh, Scottish, Northern Irish or British	31.6%	66.8%	8.1%	69.2%	48.3%	53.7%
White: Gypsy or Irish Traveller	-	0.1%	-	0.1%	-	0.1%
White: Irish	0.3%	1.0%	0.0%	0.8%	3.4%	1.5%
White: Roma	-	0.2%	-	0.2%	-	0.3%
White: Other White	0.3%	4.7%	1.1%	5.9%	11.1%	10.3%
Other ethnic group: Arab	-	1.0%	-	0.3%	-	1.2%
Other ethnic group: Any other ethnic group	2.3%	1.6%	0.9%	1.7%	5.0%	3.3%
Unknown	17.1%	-	2.7%	-	3.4%	-

6.1.3 Deprivation

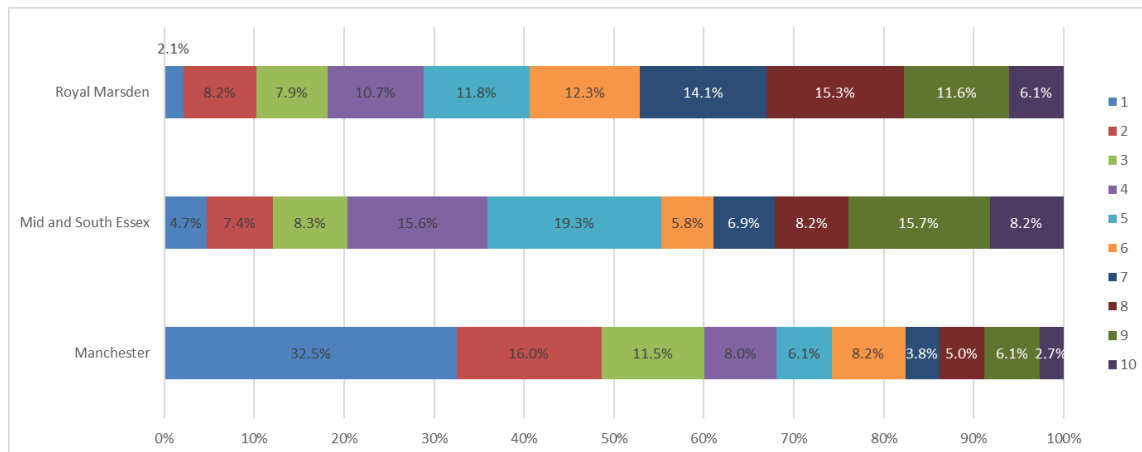
From the collated site data we can see a representative distribution across all IMD deciles.

Figure 18 Deprivation (IMD) for project cohort



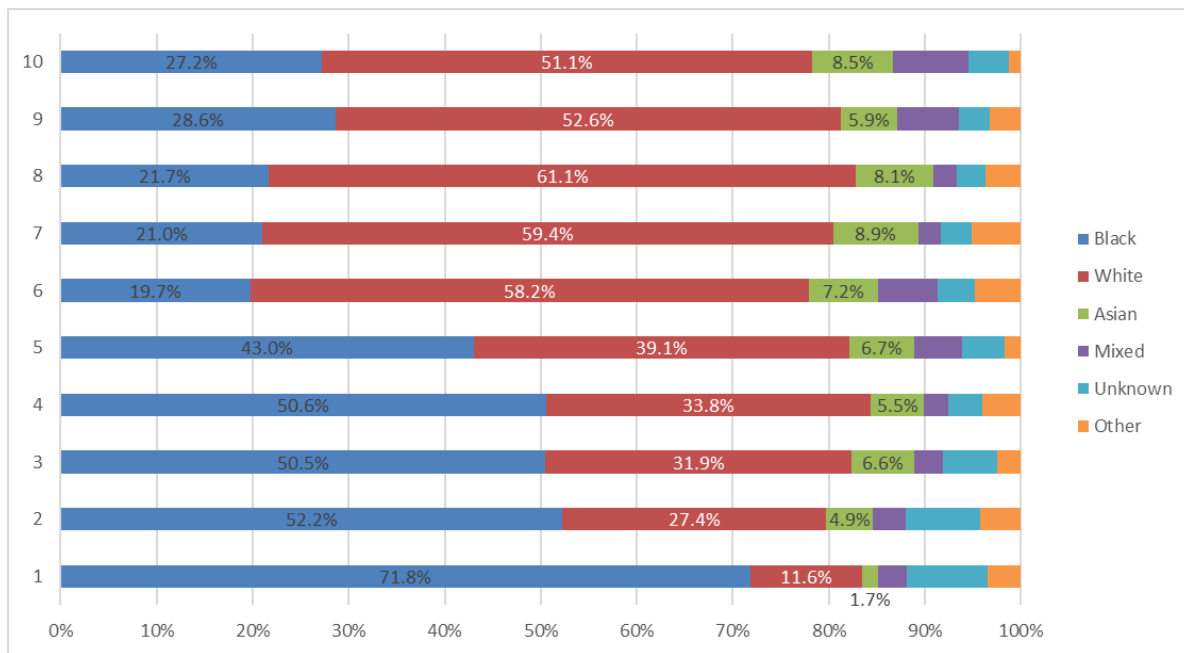
Including the project site in the analysis, we see Manchester were able to target more deprived communities, with 60% in the lowest three deciles combined, compared to 18% for Royal Marsden and 20% for Mid and South Essex.

Figure 19 Deprivation (IMD) for project cohort, by site



In addition, a correlation between deprivation and ethnicity was sought (see Figure 19 below). In the lower 4 deciles of IMD, over 50% (rising to 71.8% in decile 1) of the men in the project were of black ethnicity.

Figure 20 Ethnic categories by IMD decile for project cohort



7. Findings by evaluation questions

7.1 Question 1: What impact does case finding have on supporting the target groups to come forward for PSA counselling and PSA testing?

7.1.1 Question 1a: What impact does case finding have on supporting the target groups to attend PSA counselling?

Summary

- Of the 5,974 men in the targeted cohort, 42.7% were of Black ethnicity, 39.3% were White, 5.8% were Asian, and 4.5% of Mixed origin with the remainder in other ethnicity categories or unknown.
- Around 2 in 3 men booked an appointment for PSA counselling following an initial invitation, with men of black ethnicity being less likely to book an appointment (Black ethnicity 53.6% vs White ethnicity 95.6%). There were no apparent impacts of age and deprivation in terms of the likelihood of attending counselling. A small percentage of men did not attend their booked counselling appointment.
- Overall men's experience of getting invited to an appointment for PSA counselling and booking this appointment was positive. More than half, either immediately or took a few days, decided to book an appointment with men describing the whole booking process as "easy", "straightforward" and "convenient" across the three sites. Men responded to the invitation because they wanted to accept the offer for a health check, viewed the opportunity as part of their ongoing PSA monitoring, heard about it from friends and family (i.e., word of mouth) and valued the convenience of the approach when delivered via a van in Manchester and London.
- Staff felt that case finding invites minimised the risk of causing anxiety among the general population given the possibility of false positives while still helping to raise awareness on the risk factors of prostate cancer. Staff also reflected that having a mobile van in public places yielded a great amount of interest from the public.

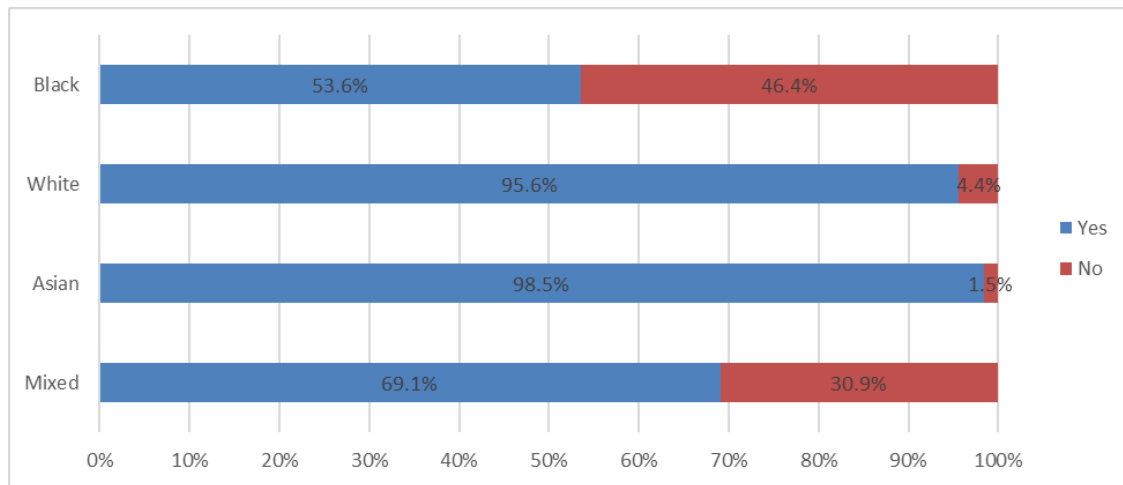
Booking and attending an appointment for PSA counselling following an initial invitation

Of the 5,974 men in the targeted groups invited, there are records of 4,037 (67.6%) with an appointment for PSA counselling. This isn't a complete picture, as there was missing counselling appointment data from one site (Manchester). The data for this part of the pathway is also less comparable since some men were invited by their GP to attend for a PSA test and in other sites men were able to proactively book an appointment without being invited or simply turn up at the mobile van. Discussion with staff at each site suggests that the remainder of men were either invited and did not take up the offer of the appointment or were only recorded as having attended for a PSA test.

How did the men booking PSA counselling reflect the target groups?

The figure below shows the percentage of men in each ethnicity category who booked a PSA counselling appointment following the initial invite. Men of black ethnicity were less likely to book an appointment following an initial invitation.

Figure 21 Comparison of PSA counselling booking following invite, by ethnic category.

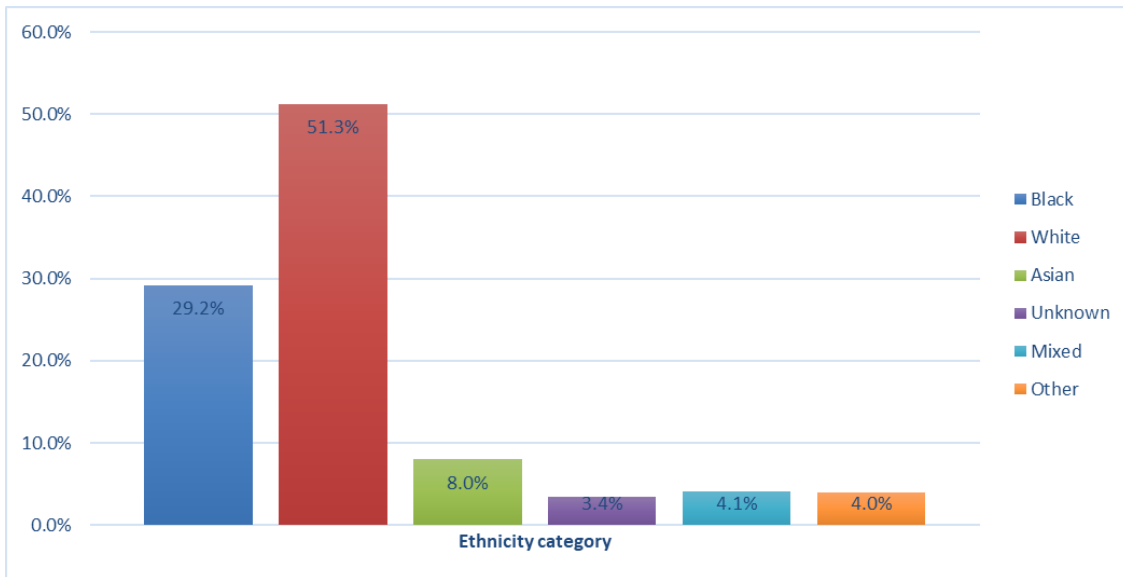


Of those men who *did* book an appointment, only 1.3% of them did not attend.

How did the men attending PSA counselling reflect the target groups?

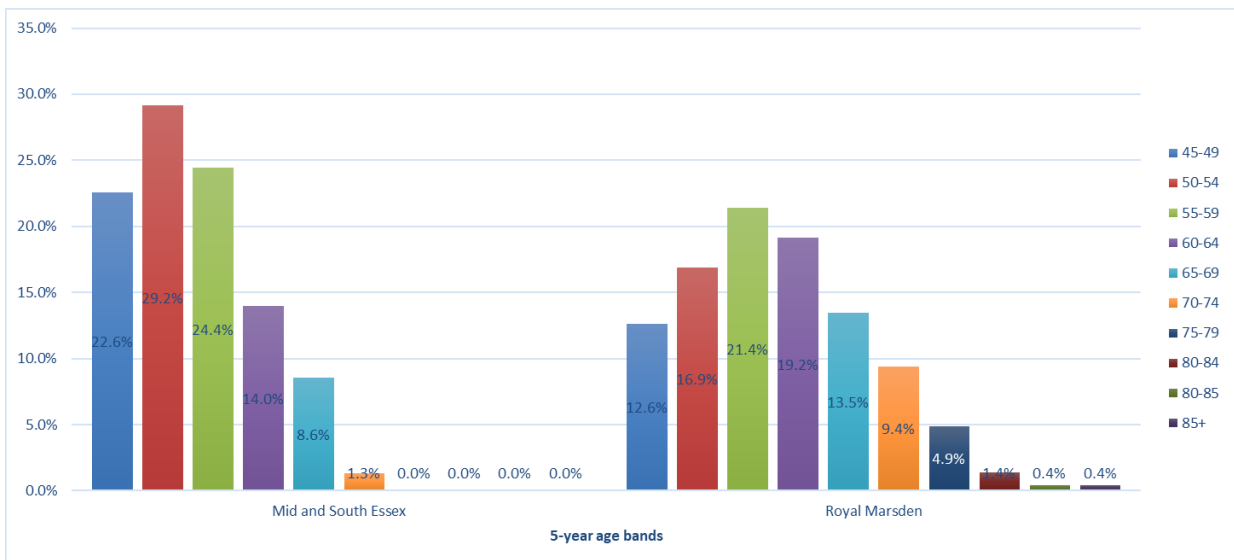
3,982 men attended a PSA counselling appointment (Note: there is only counselling appointment data for RM and MSE). Analysing this by ethnicity (Figure 22), just over half of men attending a counselling appointment were of white ethnicity, with almost a third of black ethnicity. The fact that there is a substantial difference in the proportions of white and black men booking a counselling appointment suggests that more would need to be done to make the invitation stage of the pathway more equitable.

Figure 22 Ethnic category of men attending PSA counselling



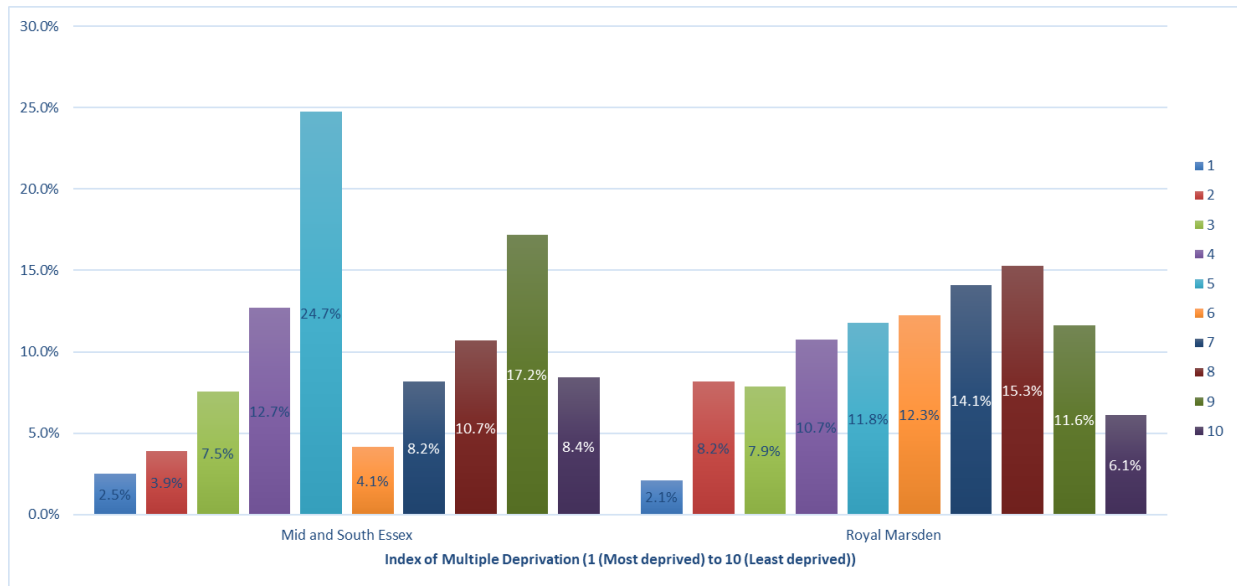
Analysing by age, we see a younger profile for Mid and South Essex, when compared to Royal Marsden, with over 95% between 45 and 69 years. This was to be expected, since MSE's search criteria were limited to men under 70 years. Royal Marsden saw a more even distribution of all ages – likely to be related to their wider search criteria since they were conducting a general health check rather than just testing for prostate cancer.

Figure 23 Age distribution of men attending PSA counselling, by site (MSE and RM sites only)



Analysing by deprivation (IMD deciles), each level of deprivation is represented (Data not available for Manchester), with a slightly more deprived profile for Mid and South Essex, when compared to Royal Marsden, with over 50% in the lower 5 deciles compared to around 40% for Royal Marsden.

Figure 24 IMD decile distribution for men attending PSA counselling, by site (MSE and RM sites only)



Patient experience of being invited to attend an appointment

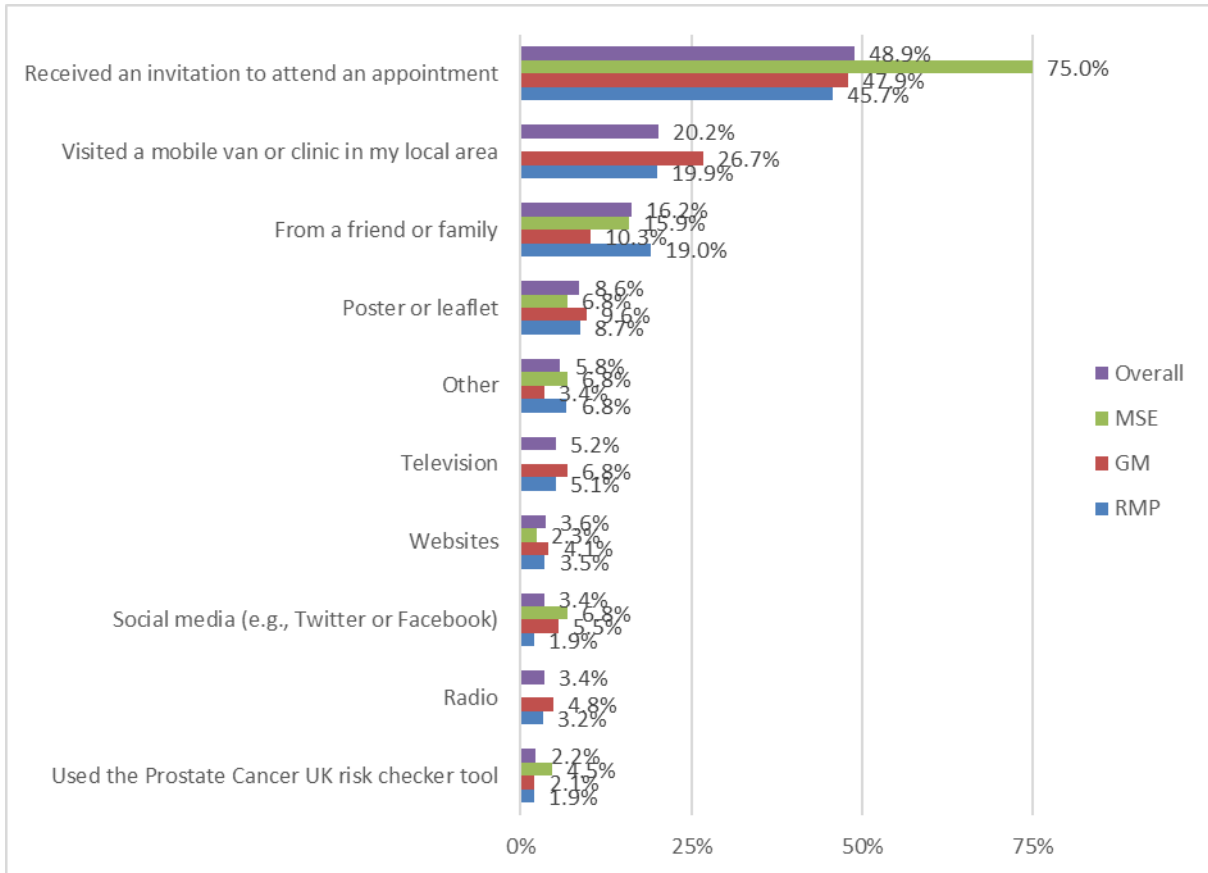
From the patient survey and interviews, men shared 1) how they found out about the prostate cancer case finding pathway, either through an invitation or self-identification of risk, 2) their reasons for going ahead with an appointment, which involved the opportunity to get a health check and viewing it as part of their ongoing PSA monitoring, and 3) their experience of booking an appointment, which was overall described as "easy" and "straightforward". These are discussed further below.

How men found out about the case finding pathway

Respondents to the survey selected various ways in which they found out about their risk of prostate cancer. Nearly half, or 48.9%, were invited to an appointment. Other ways in which respondents were made aware of the pathway were through a visit to the mobile van in their community (20.2%), from a friend or family (16.2%), and various marketing or communication channels made available through posters or leaflets (8.6%), television (5.2%), social media (3.4%), radio (3.4%), and websites (3.6%). 2.2% of the respondents were also made aware of their risk through the Prostate Cancer UK risk checker tool.

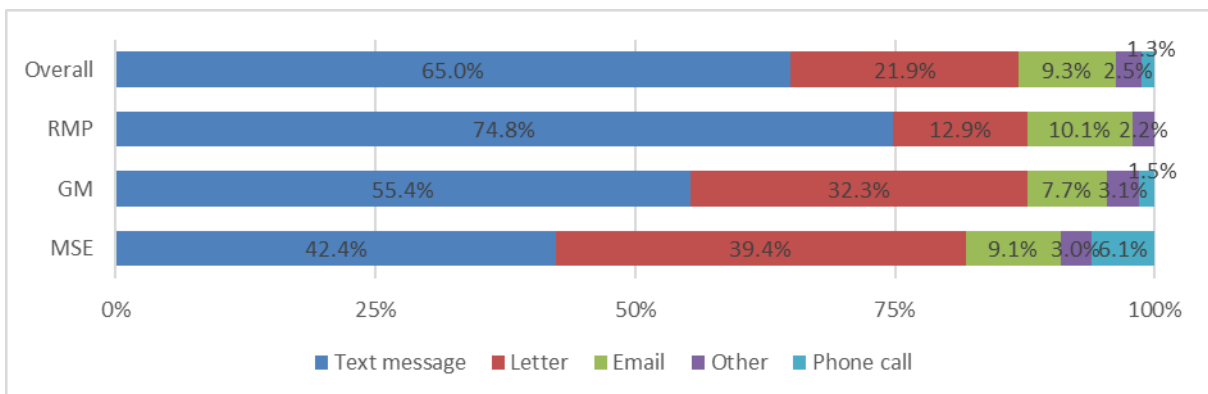
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Figure 25 Breakdown of how patients found out their risk of prostate cancer



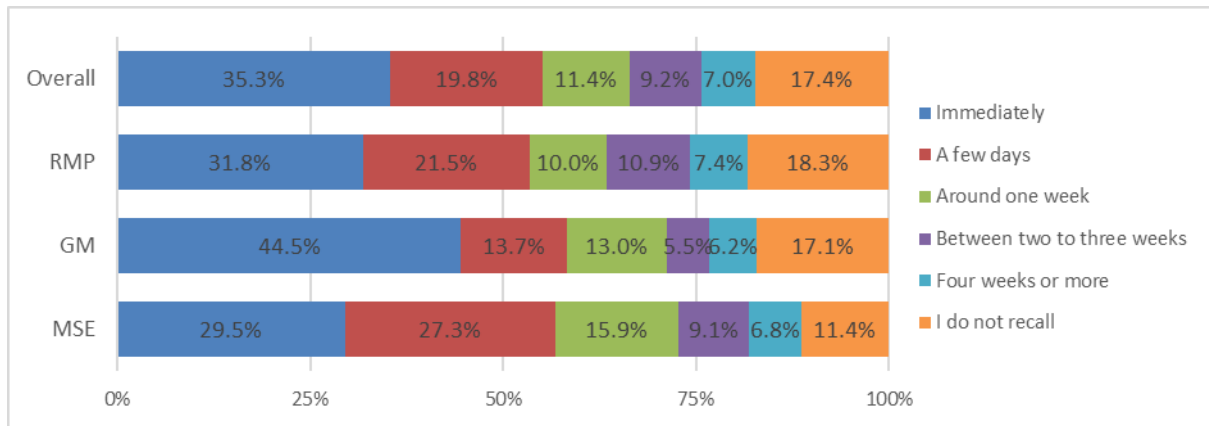
Of those who received an invite, 65% were invited through text message, followed by a letter (21.9%). A large number of respondents indicated that how they were invited was their preferred way of communication (63.0%) or had no preference for how they were contacted (34.5%).

Figure 26 Breakdown of the invitation method



More than half, or 55.1%, either immediately (35.3%) or took a few days (19.8%) to decide to go ahead with an appointment for PSA counselling and PSA testing following their awareness of the pathway.

Figure 27 Breakdown of how long it took for patients to go ahead with an appointment



Reasons men chose to go ahead with an appointment based on patient interviews

- a) **Accepting any opportunity for a health check.** Patients discussed how they generally accepted any health check that was offered. This invitation also acted as a reminder to get a PSA test for men who have not had one in a while. As such, seeing a van parked in a local area or getting a text message from their GP increased awareness of the PSA test. The test offered was also "free" as some patients were aware that some services, especially outside the UK, may be expensive. The theme of "getting an invite for a PSA test vs asking for one" is explored further in Section 7.4.2 below.

"Yeah, because you get lots of texts from them when you're over 65. You get texts about flu, you get texts about COVID, you get texts about prostate cancer. Just what the NHS does, isn't it?" (P202, RMP)

"No, I think I probably left it five years or so since the last time I had it done, I half-intended to get it done at some point and then just seeing the van in the car park, the fact that it was right there in front of me, prompted me to do it this time." (P052, GM)

"Because back home, I come from Ghana, back home everything is expensive. You have to pay for everything. And here if it's free, I know they pay taxes for that, if it's free, I do it just for myself." (P026, GM)

- b) **Part of their ongoing PSA monitoring.** For these men, the pathway was an opportunity to get a PSA test as part of their normal check-up. They were usually aware of their risk of prostate cancer and have had a PSA test (or spoken to a clinician about it) in the past. The key difference with those who took up the offer of a health check is these men were actively looking to get a PSA test as part of their ongoing monitoring of their prostate.

"I was very keen to get PSA tested, which I have done on a regular basis with the local GP, but they forgot to do it last year, which was quite lucky because I then got the.. text message, asking me if I wanted to be a part of the pilot for this new PSA test, to which I replied, "Yes." " (P205, MSE)

"Being of Afro-Caribbean descent, I understand that my prostate cancer risk is higher than most... So, I try to get myself checked regularly, and that was just another avenue for me to check myself... So, as a routine check on myself." (P194, RMP)

- c) **Symptoms or health changes.** Some men were experiencing changes in their health, which they attributed to their increasing age, and observing symptoms related to their frequency of urination. They might have also been concerned with their enlarged prostate and were keen to exclude the possibility of cancer.

"I'd been getting up a lot in the night, so I still had a lot of the sort of symptoms, and I had a bit of discomfort down there. So even though I'd had a test during the year, there was a

sense to me that, okay, well, I've been tested recently and I'm told that I'm negative in terms of the cancer risk, but I'm still having a lot of the symptoms, so what's going on here? So that's why I wanted to go to the Van." (P110, RMP)

"I think, it was about five or six years ago. And my blood pressure went up through the roof and I was having dizzy spells, I was fainting and passing out. So, I think I was approaching having a stroke or something like that. So, things started changing... I've been taking a little bit more of a keen interest in where I'm at, as I'm getting older anyway." (P005, GM)

- d) **Word of mouth about the case finding pathway.** Patients heard about the pathway from their partner, family or friends. To note, patients in Essex did not report having heard about the pathway through others, which is reflective of the approach taken by MSE to not market the pathway widely; however, 15.9% of men in MSE did hear about prostate cancer, rather than the pathway, from family and friends as reported through the survey.

"Just shortly after that I heard from one of my friends and colleagues he went for a test because one of his friends had found that he had prostate cancer. So, he went just for a test just to have a check-up and he also found, just by chance, that he had aggressive prostate cancer." (P005, GM)

- e) **Convenience of the van (in Manchester and London).** Patients felt that the pathway was visible, accessible and a suitable alternative to having to go to their GP and request a PSA test. The novelty of the mobile van model (as well as its challenges) to case finding is discussed further in Section 7.4.2 below.

"I also think why it's helpful being visible is a lot of men don't like going to the doctor's particularly, I'm one of them." (P020, GM)

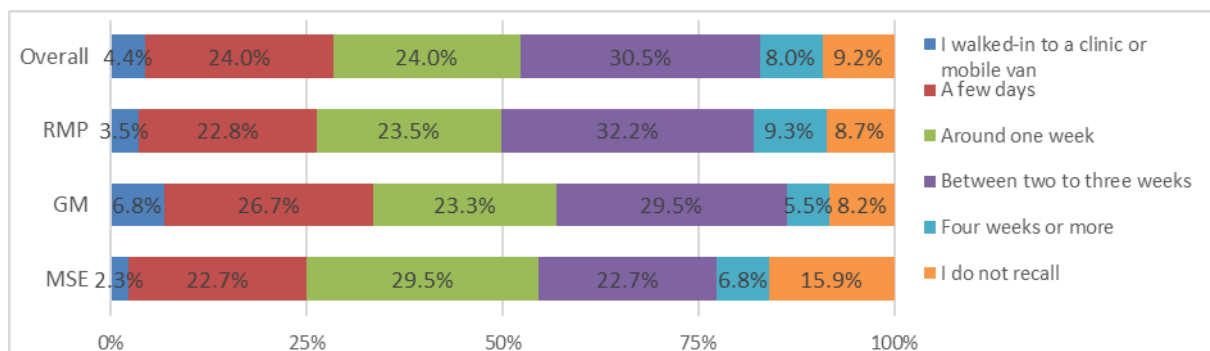
"I mean, the Man Van was great for me because I could walk there. And it was just down the road. It was fine. I mean, realistically, more and more vans are being used by the NHS for various reasons. It worked." (P101, RMP)

- f) **Helping with research.** One patient took up the offer of an appointment because they were keen to be involved in this programme.

Men's experience of booking an appointment

After deciding to go ahead with an appointment to discuss their risk of prostate cancer and potentially undergo a PSA test, most respondents (52.3%) had their appointments within a week; they either had a walk-in appointment (4.4%), waited a few days (24.0%) or waited a week (24.0%).

Figure 28: Breakdown of how long patients had to wait for an appointment



When an appointment had to be booked, respondents had mainly positive words to describe their experience, such as **easy** (69.1%), **straightforward** (34.3%), **convenient** (15.2%) and

quick (13.0%). Less than 3% of the respondents selected negative words (e.g., **difficult**, **confusing** or **time-consuming**) to describe their experience.

There was an overall sense of satisfaction from patients with the invitation and appointment booking as reflected in both the patient survey and interviews, consistent with the findings above.

"The process seemed easy and didn't seem to have any downside, so I booked it. I didn't feel "at risk of prostate cancer" after the notification, just saw an easy opportunity to take a simple precaution." (RMP – patient survey)

"It was commendable, I wasn't even thinking of it until was brought to my attention, and am impressed for proactive information." (MSE – patient survey)

"It was good opportunity for me to check my prostate health condition being as a black African. It was easy to request for an appointment." (GM – patient survey)

A few patients, however, described their confusion on the online booking form for RMP, namely whether they were securing their appointment through the online form. These, however, were only a handful.

"The online booking experience was fine. However, at the end of answering all the questions, I was expecting to be presented with a list of available days and times for an appointment. Instead I was simply told that my appointment would be made for me." (RMP – patient survey)

Staff experience of inviting and supporting patients with booking an appointment

Overall, staff felt that case finding is a good way to target individuals who are at risk of prostate cancer and lowers the risk of false positive results and the possibility of causing anxiety to people if offered to the general population.

"I think it's good that it's a targeted group rather than everyone like the normal NHS screenings or cause if it was offered to everyone it will be overwhelming definitely and you have a lot of false positive and it will cause a lot of anxiety, so because it was targeted to a certain group of patients and there was a lot of information for them to understand what they were putting themselves forward for I think that was really good." (MSE)

The mobile vans across Manchester and London further helped increase the public's awareness of prostate cancer risk factors and provided men the opportunity to get a PSA test. Having the vans in public places, such as car parks, piqued people's interest and was good publicity for the pathway. Staff in RMP also shared how patients would travel from across the country to visit the Man Van in London.

"I think surprisingly people have travelled from all over the country to access our Man Van. We had some interesting advertising via the cricket at Edgbaston back in the summer and that saw a wave of patients wanting to be seen down in London wherever the van was to try and access something that they just couldn't access via their local GP practices or urology services." (RMP)

Staff in RMP further shared their different approaches to inviting men depending on the locations of the van, with the busiest location being their time at Ealing where the van was parked on a Broadway. Here, the site received a lot of interest as shown through the number of men scanning the QR code on the side of the van to book their appointment. Other locations mainly involved GP text messages to patients which also yielded considerably high interest from men. However, they had to adapt their invitation method when they were at Brent – by having flyers on a table at a nearby leisure centre and working closely with the local public health team and staff at the leisure centre – as the practices they engaged with did not have the funds to send out text messages. In overcoming this challenge, the RMP team engaged with the local public health teams and the ICB to find other ways to raise awareness and inform the public of the case finding pathway. The team also operated

from a physical clinic, rather than the Man Van, in Balham as part of their experience of delivering the pathway across London.

"We went to Ealing, at which point we put a QR code on the side of the van and because we were parked on the Broadway, I think that probably was our busiest location, where we had so much foot traffic that probably about ten men per day were scanning the QR code and trying to get an appointment, as well as the text messages... When we moved to Brent, that was slightly different because Brent didn't have the GP practices I believe, but they didn't have funds to send out text messages so it was very, very targeted. We worked very closely with NHS, the public health team there. In the leisure centre, they had a table with flyers about prostate cancer and there were members of staff there with iPads actually helping men fill in the forms." (RMP)

In MSE, one clinician felt they did not get as many patients as they expected but it was a good or reasonable response to the invite letters. Another clinician from MSE commented that at their practice/PCN they had had *"a very good update from our Afro-Caribbean patients actually"* which was positive. A further clinician from MSE reported they had had *"loads of responses immediately, quite a few patients booked in within the first couple of weeks"* with then an expected decrease in the number of calls, however there was a second spike or increase when second invite letters were issued:

"we had 41 patients that responded after the first letter, and then 25 patients responding after the second letter. So, it was definitely worth sending the second letter out because of the patients we saw quite a few patients were still responding after the second letter (MSE)".

Staff in MSE felt that the search criteria could have been more specific, namely the familial degree covered under family history (and whether an age limit should be applied), and expanded to include men who had a family history of breast cancer (similar to the search criteria employed by GM).

"the family history was any family history, wasn't it? It wasn't early, it wasn't just first degree relatives, some of them were grandparents and again, it was fathers but they got older, I presume that family history was just a broad question in the search... Interestingly enough, there was no family history of breast cancer, which I'm wondering whether in the future we ought to think about that now we know that there is a link." (MSE)

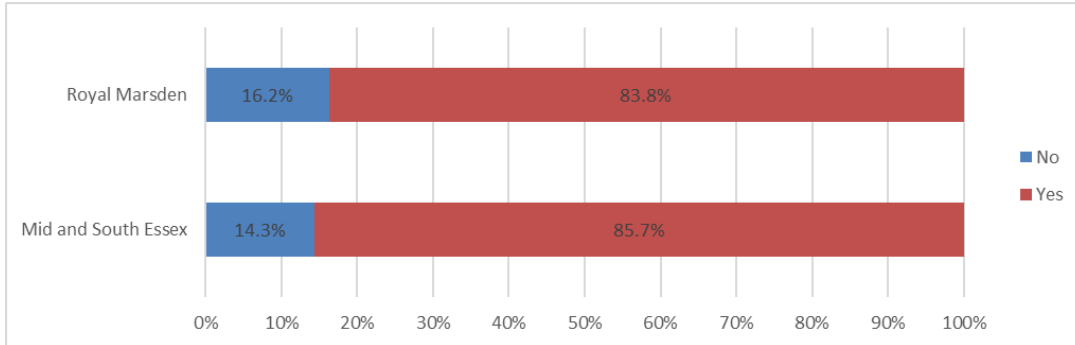
7.1.2 Question 1b: What impact does case finding have on the target groups receiving a PSA test?

Summary

- In the patient-level data, around 85% of those who were counselled went on to have a PSA test. There was no impact of age, ethnicity and deprivation on the likelihood to go ahead with PSA testing, once they had attended for the counselling appointment.
- Validating the findings from the patient-level data, a majority of patients who attended an appointment for PSA counselling went ahead with a PSA test, as described by patients and staff. Across the sites, men valued the opportunity to speak to a clinician during PSA counselling and obtain information about the PSA test. Some men, in particular those who were already familiar with key information about PSA tests (e.g. men with a family history or men who had previously had a PSA test), felt that their decision to book an appointment and go ahead with a PSA test was already made before PSA counselling and was more to do with getting or being able to access a PSA test. Staff felt that PSA counselling was necessary to ensure all patients were informed of the issues with the PSA test and allow for shared decision-making.
- Patients who did not go ahead with a PSA test shared that it was because they were either not offered one, had one recently, or that they questioned the benefits or reliability of the test. Patients were aware of the challenges of the PSA test and also that, at present, it is the best test there is to indicate their risk of prostate cancer.

There are records of 3,967 men having undergone PSA testing during the project. For the 2 sites where counselling data was available (RM and MSE), just under 85% of men who attended PSA counselling went on to have a PSA test (Note: Manchester did not provide PSA counselling data).

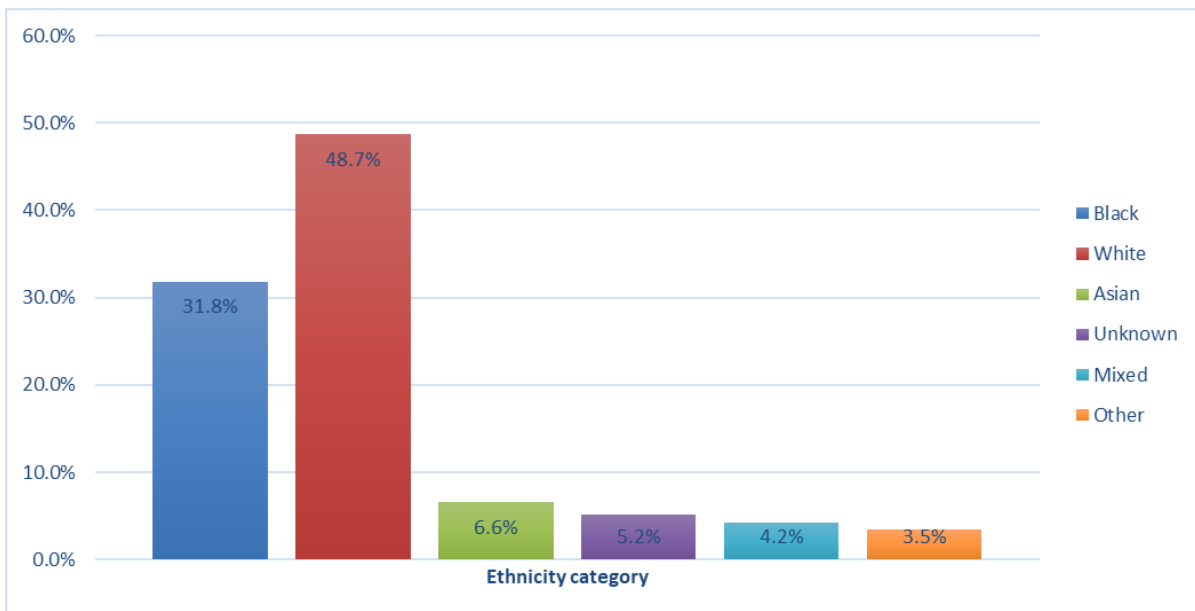
Figure 29 Proportion of men counselled who underwent PSA testing, by site



Analysing this by ethnicity, about 48% of those tested were of white ethnicity with just under 32% of black ethnicity. The proportion of men of black ethnicity tested is lower than the proportion in the overall project cohort (31.8% vs 42.7% (

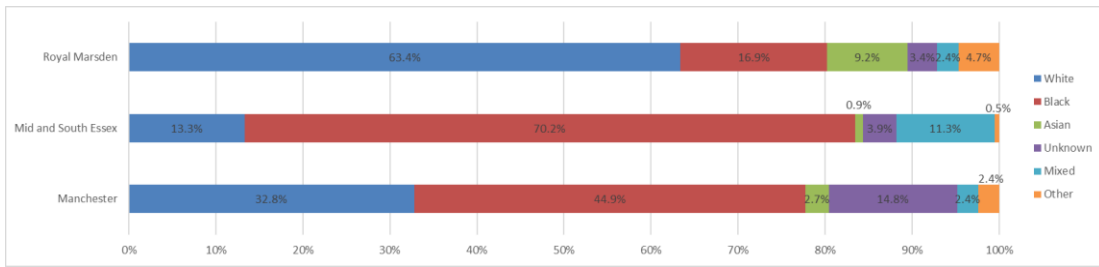
Figure 16)). This is due to fewer men of black ethnicity booking an appointment following an invitation. However, the proportion of black men in those tested is still higher than the proportion of black men in those who received counselling (31.8% vs 29.2%). Note that this data is hard to compare directly, as the PSA counselling data did not contain Manchester data, whereas the testing data did.

Figure 30 Ethnicity of men undergoing PSA testing.



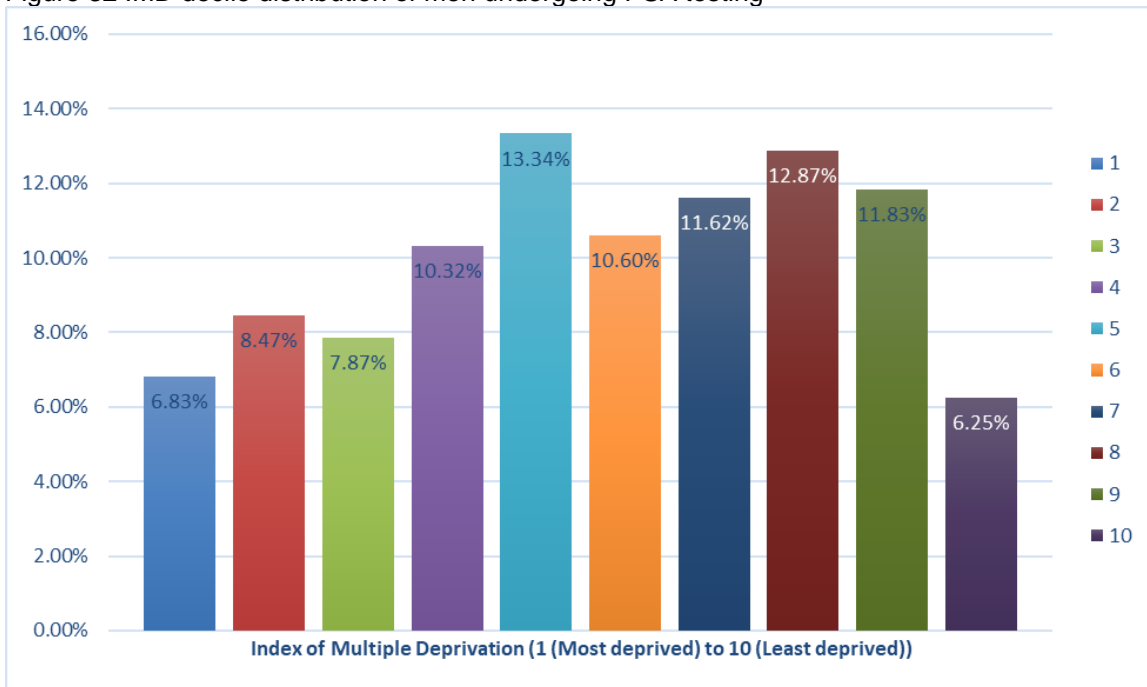
There were some clear differences between sites, with the number of tests in men with black ethnicity ranging from 16.9% at Royal Marsden to 70.2% in Mid and South Essex, and 44.9% in Manchester. This reflects the overall strategy of each site. RM based their initial searches on age only (although later did attempt to target areas of high black ethnicity), whereas MSE and GM specifically included ethnicity in their inclusion criteria in the initial identification of the targeted population.

Figure 31 Ethnicity of men undergoing PSA testing, by site



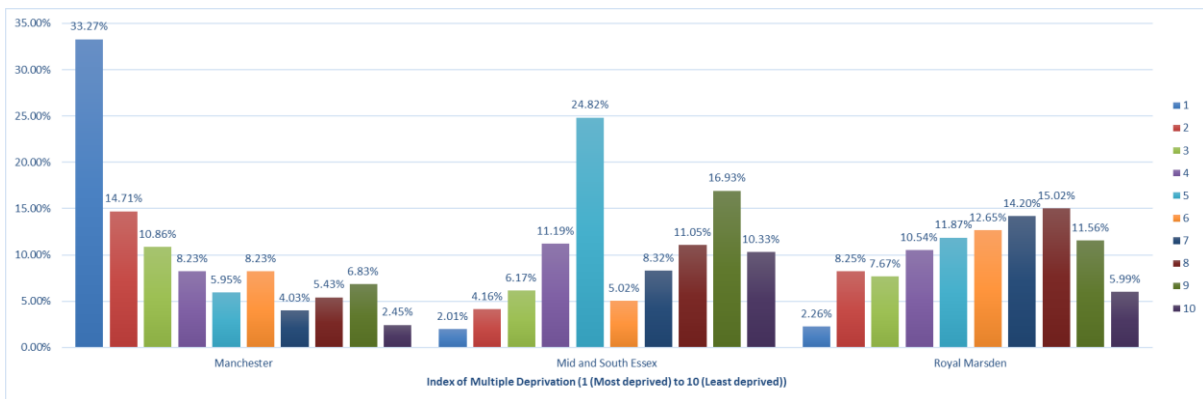
Analysing by IMD decile, there is a spread of PSA testing across all deciles. This was not unexpected, since deprivation wasn't specifically a criterion for inclusion or exclusion. It is being reported to demonstrate that specific groups were not excluded using a case-finding approach.

Figure 32 IMD decile distribution of men undergoing PSA testing



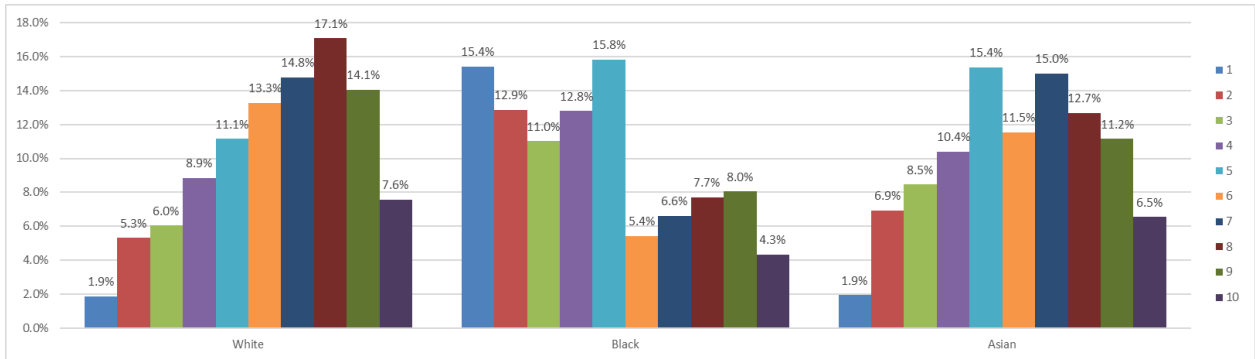
Manchester included men from more deprived communities to a greater degree than the other sites with almost 60% of men tested residing in the lower 3 IMD deciles.

Figure 33 IMD decile distribution of men undergoing PSA testing, by site



Including IMD and ethnic groupings (Figure 34 below), demonstrates the correlation between IMD and ethnicity, with the lower IMD deciles containing higher proportions of men of black ethnicity in those undergoing PSA testing. You can see the white ethnicity is dominated by the least deprived groups (6-10) and black ethnicity the most deprived (1-5) with Asian ethnicity falling in between.

Figure 34 Ethnic categories for each IMD decile of men undergoing PSA testing.



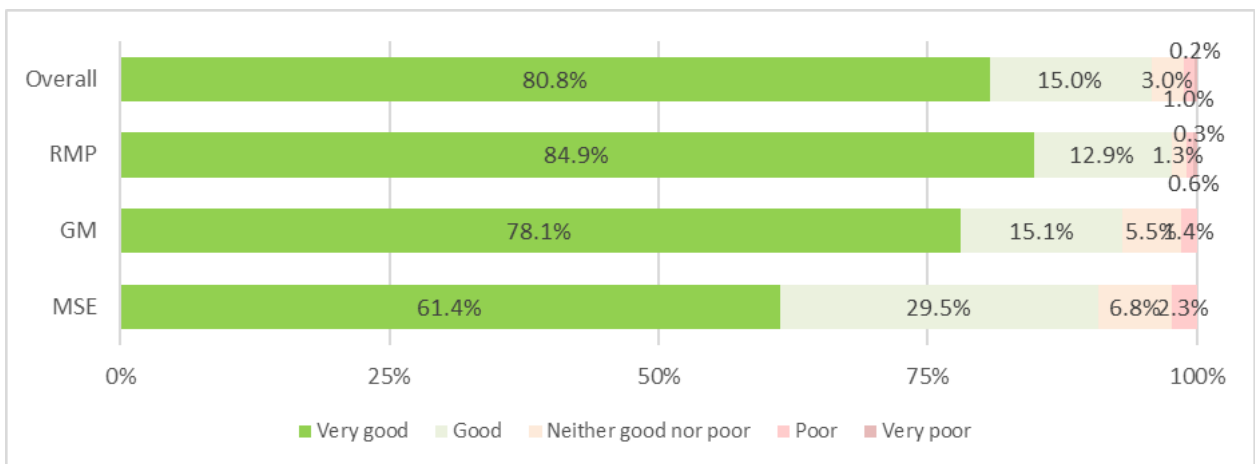
Patient experience at their appointment (i.e., PSA counselling and PSA testing)

From the patient survey and interview, men shared 1) their conversation with a clinician, which was mainly positive, and areas of the discussion they found particularly useful and challenging, 2) their reasons for going ahead with a PSA test, which involved the opportunity to get a health check, getting "peace of mind" and knowing that they are at risk, and reasons for not going ahead with a PSA test, and 3) their views of the reliability of the PSA test. These are discussed further below.

Patients' experience of PSA counselling

4 in 5 respondents (80.8%) described their conversation with the clinician as "Very good" with a further 15% using "Good" to describe their conversation. When patient ratings of their experience were converted into an average score (i.e., strongly disagree = 1, strongly agree = 5), RMP scored 4.15, followed by MSE at 3.79 and GM at 3.66.

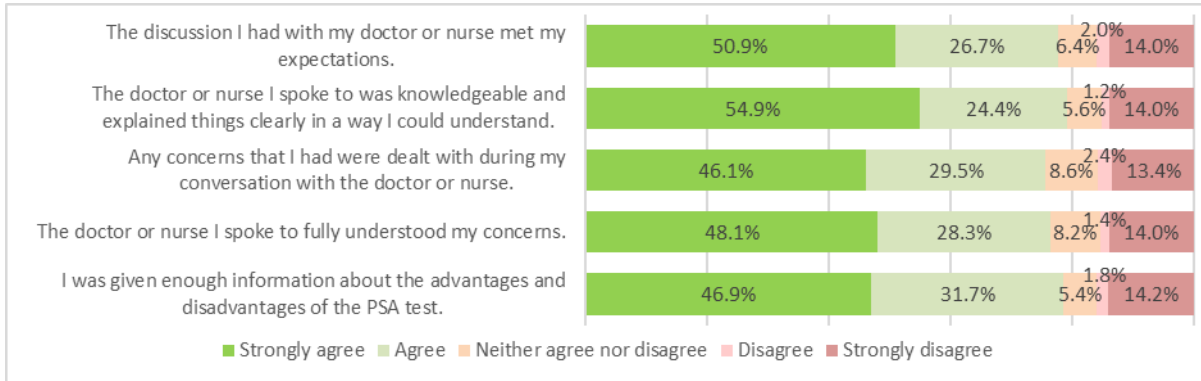
Figure 35 Breakdown of patients' overall conversation with the clinician



Additionally, respondents either agreed or strongly agreed (ranging between 76%-79%; Figure 36) across the five statements, which included whether the discussion met their expectations, whether the clinician described the pathway clearly in a way they could understand and whether they were given enough information about the advantages and disadvantages of the PSA test.

"(The nurse) explained the process to me, explained what the results could tell us, and that there wasn't definitive, it would just be an indicator, and there could be false positives and so on, and then asked if I still wanted to go ahead with the test, which I did." (P204, MSE)

Figure 36: Patient experience ratings on their experience of PSA counselling.



Free-text responses in the survey and feedback from the interviews were consistent with the findings above in that PSA counselling:

- a) Was informative or "educational" by raising men's awareness about prostate cancer and PSA testing with new information they were previously not aware of.

"I think the important thing that came out of that conversation was that there were some other things that were related to PSA that I didn't know, like urinary flow issues... Lots of different things that I was experiencing but didn't really realise it was related to PSA that came up. What happens if it's a positive diagnosis? What the ratios to cancer are. What the treatment options are. Do you know how many men died from prostate cancer?" (P103, RMP)

- b) Prioritised autonomy and shared decision-making for men.

"The whole process was very informative and you had choices, which was good as well. You could either do the test or not. It was entirely up to you." (P209, MSE)

Patients also shared through both the survey and interviews several challenges that they faced during the appointment based on the following areas, although some of these comments were isolated incidences:

- a) Including other areas related to men's health during PSA counselling, such as prostatitis, and other reasons that could cause a raised PSA.

"(The doctor) came back to me and said, "look, you don't have cancer, you do have prostatitis," is what he said to me. I suppose that was the first I'd heard of it... I think it might have been useful if I'd heard a bit about that in the Man Van." (P110, RMP)

"Need a more in-depth conversation on the effect of prostate and effect of sexual relations" (RMP – patient survey)

- b) Criticism of the clinician's knowledge and/or preparation for the appointment

"So I was coming in as completely naive and not knowing what I was about on this. That disappointed me because I was almost telling her that she didn't know, and for her to, and this will help other people, her to have taken five minutes to read through my notes, she would've seen the history and that would've put a completely different tilt on it. But in her defence on it, defence of this, she was newly qualified, she'd only been down there a week. She was probably a bit muddled probably, but that did disappoint me, that she hadn't done her homework, so to speak." (P169, MSE)

- c) Unsure about the need to have a formal discussion or counselling about the PSA test.

"I didn't really understand the hesitation (of offering a PSA test). Why not just run a test even if the result is not full proof? It was after all the reason I took part in the first place." (RMP – patient survey)

Reasons to proceed (or not proceed) with a PSA test

Following PSA counselling, 95% of the respondents of the survey went ahead with a PSA test, while the remaining 5% did not. Free-text responses from the survey for their decision are reported below:

- a) Reasons men went ahead with a PSA test:

1. Concerned about their risk of prostate cancer due to their family history or ethnic background	<i>I was requesting for that test for my age and family history (RMP)</i>
2. Wanting to know if they had prostate cancer to start treatment early. (i.e., "precautionary," "be on the safe side")	<i>my brother has prostate cancer and he advised me to have the test done, plus I get my bloods done every year at my doctors. (GM)</i>
3. Take up the opportunity to have a health check as part of their normal check-up	<i>I have self monitored for the last 15 years, so the decision was automatic (MSE)</i>
4. Looking for "peace of mind" or "reassurance"	<i>My father, brother and sister died with cancer and I just wanted reassurance (GM)</i>
5. Non-invasive procedure	<i>I went ahead with the PSA test as it was non invasive (MSE)</i>
6. Information shared during PSA counselling	<i>The conversation confirmed my desire to check my prostate status. (RMP)</i>
7. Wanted to "follow through with the process" as they were already at the appointment as it was the "obvious thing to do"	<i>I come to the conclusion that if I made the effort to go to the interview, then I'd be silly not to make the effort to do the test as well. (MSE)</i>

- b) Reasons men did not go ahead with a PSA test

1. Not being offered the test or not requiring one (although reasons for this were not mentioned)	<i>I answered their questions and it felt like they quickly dismissed me as non-priority. They were meant to write back to my GP about my enlarged prostate and what to do. I still expressed my concerns about the possibility of cancer and how a PSA could or could not be definitive. I heard nothing back from anybody. It was spike they just ticked their box to say they had vetted another man. But I had no tests there or since. (RMP)</i>
2. Having had one recently at their GP.	<i>I had just had one with my GP two weeks earlier (RMP)</i>
3. Questioned whether the test was "beneficial" due to the "risk of false positive" results.	<i>Risk of false positive and not symptomatic (RMP)</i>
4. Miscellaneous reasons, such as difficulty in finding a vein for the blood test and the unavailability of the mobile clinic upon arrival at the appointment.	<i>Almost impossible to find a vein to take any blood test. (RMP) Had 4.30 appt arrived 4.40, the official was packing up and didn't believe I would turn up (GM)</i>

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Some patients shared that when they were invited for an appointment, they had already decided to go ahead with a PSA test regardless of what was covered in PSA counselling.

"I was always going to say yes to a PSA test, that's the whole reason I went." (P007, GM)

"No, I think the decision was made when I was offered, well, I mean, I applied for the thing, and then they came back, "Yes, we can offer you an appointment." And then, right, I'm going to do it, I never really ummed and ahed about it. As soon as I was offered it really, I thought, yes, I'll get that done." (P078, RMP)

Across all three sites, staff recalled that in their experience, the majority of men who received PSA counselling went ahead with a PSA test:

"I don't think we had anyone who met the criteria, who then decided not to have one" (GM).

"The majority of people opted to have the blood test done" (MSE).

"Since I started, I've not been in an appointment where anyone said no...since I've started, no one's said no so it's been an overwhelming yes" (RMP).

Staff went on to describe the reasons why in some cases men decided not to proceed with a PSA test or it was not appropriate to conduct a PSA test. In one instance, this was due to a patient's age:

"I've only had one gentleman...I think he was quite elderly, and I think he thought, if I have this PSA test, there's not really much that's going to benefit me. I don't think I'd want to have any further investigations. So, I think he was in his mid-80s, and he decided to not go ahead with it" (RMP).

In other instances, patients did not meet the clinical criteria or were under the care of the relevant services, with staff comments below. In some instances, staff found it difficult to explain to patients they did not meet the criteria and could not proceed with a PSA test:

"I think in the rare case where people didn't (have a PSA test), they were already under urology or already had regular PSA tests or had recently had a PSA test, so we decided against it in that case...I don't think we had any patients that refused to have the blood tests for any reason, other than they'd already been investigated or something like that (MSE)".

"It was sometimes really hard, especially at the start. I think for me personally doing it and I know some of the other nurses, we did struggle with when we had to turn people away. It must take a lot of courage to book on to that van and then to be told unfortunately you don't fall into the criteria, that was a bit tricky. But generally, the men who were there to have a PSA test would have one after they'd been counselled. I can't think of any where I've seen anyone that didn't actually have one, who were in the category. It tended to be that unfortunately they didn't meet that criteria. But then we sent letters to the GPs explaining for them to speak to them if they needed to." (GM)

During interviews, staff from MSE also identified that there were a few patients picked up in the clinical system searches who had already had a PSA test within the last year, who should not have been invited into the case finding clinics. In this instance, it was about making it clear to the patient there was no reason to repeat the PSA test:

"They all wanted it (PSA test); even the man that had had it (a PSA test) and it took me ages to persuade him that he didn't need it again [laughter]. I was like, "You don't need it, you only had it a few months ago" (MSE).

Patients' views on the reliability of the PSA test

Patients continued to share their concerns about the PSA test, mainly involving its reliability and the possibility of getting a false positive/negative result, but believed the test is the best they have at the moment, is "*better than nothing*" and only involves a simple blood test.

"I've read up about the PSA and there's, obviously, you can get false-positives and false-negatives. So, I've done some research about it, and I had some ideas that it wasn't going to give me... But, you have to go through these tests because otherwise you'll never find out. And it's a simple blood test so there's nothing hard about it." (P035, GM)

Patients showed a level of awareness regarding the reliability of the tests, the PSA test is a way to get more information about one's health and can even provide reassurance that the result was not actually positive.

"Obviously with the PSA, there are limitations, you have to be aware of the limitations of the test, the higher result doesn't necessarily indicate cancer, you need to be aware of avoiding over-treatment... So yes, as long as you bear these things in mind, then more information tends to be better, you just have to be aware that the information isn't always a hundred per cent accurate or doesn't always mean what you initially think it might mean." (P052, GM)

"I mean, it's always a slight concern in the back of your head that you're going to get a false positive, but then there's further investigations that can be done if you do get a positive result. So I'm sure it would be uncomfortable to get a positive result, but I guess the fact that there are false positives might kind of ease your mind a little bit, and you'd always be hoping that it was a false positive rather than an actual positive." (P204, MSE)

Staff also acknowledged that some patients asked them about the accuracy of PSA testing and that it was important to answer those questions and provide education during PSA counselling:

"Even some men that do come on that are quite sceptical, obviously in the media they've read it's not 100% accurate or there's other tests that are waiting to come out that are going to be better. Why should I have this? Once you have a chat with them and explain it, they're like oh well, I may as well, it will be silly not to, is the impression I get from those men at the end. You do get people that are sceptical but once you've had a chat, they're generally pretty eager to go ahead with it." (RMP)

Despite concerns over the PSA test, most patients were keen to have another test in the future and continue monitoring their health. From the patient survey, 76.2% either "strongly agreed" or "agreed" when asked if they would have a PSA test and do it all over again (more information on patients' experience of getting their results is reported in Section 8.1 below).

"I always feel better to do either once a year or twice a year, general checkup such as the prostate or whatever. I feel like because it doesn't matter if I'm moving up and down, nothing is happening. Sometimes something might be hiding, which I don't know." (P011, GM)

"I know that I ought to get myself tested once a year, and if an opportunity like this doesn't come along, I'll just have to arrange it through my GP, I guess." (P204, MSE)

Staff experience of PSA counselling and PSA testing

- **Patient expectations and appearance:**

Clinical staff specifically spoke about patient expectations and how patients appeared or acted during their initial appointment. Staff commented that patients appeared anxious, nervous, and unsure of what to expect. Staff had different perspectives on why men were attending and whether patients knew what to expect or were adequately prepared. Some staff reflected that patients were clear and focused on their reason for attending the van or clinic, namely, to get a PSA test, and were "well informed" and "knew why they were being called in":

"I think some of them do come on and they're quite nervous. Some men had signed up to the service, didn't really know what to expect or what was going to happen." (RMP)

"Most of the patients knew why they were there, they knew that they'd been called because they were at risk, either because they were Afro-Caribbean, or they had a family history or prostate cancer, and they were over the age of 50." (MSE)

- **Approaches to PSA counselling:**

In GM, the lead consultant and colleagues wrote a script or guide to try and ensure staff were covering similar content during PSA counselling, with staff asking how the man arrived at the van and checking that the man met the criteria. One staff member from GM remarked: *"I don't think a lot of people fully understood the PSA test. I think they were a bit surprised that it wouldn't tell them if they had prostate cancer there and then"*, and as a result, it was important to talk to patients about the pros and cons of the PSA test, and other factors which can affect the result.

On the RMP Man Van, clinicians described that they gave an introduction, introduced the idea of a general health check, took a patient's height and weight, discussed PSA and the blood test. RMP staff emphasised that it was important that *"they/men understand pros and cons and make a well-informed decision"* and to make men feel comfortable whilst still providing education. One clinician from RMP described an instance where a patient wanted to go away and thinking about it:

"I sent him away with the Prostate Cancer UK PSA booklet and said, "This is your decision. We are here for the next four weeks if you want to come back. You give us a ring on this number, and we'll do it. If you haven't decided in four weeks, this is a blood test the GP could do for you, so you phone up in six months' time and do that with your GP. This why we would recommend doing it but you need to make the decision that's right for you." (RMP)

Equally, in MSE clinicians reported giving patients *"lots of information"* and that for the most part patients find it *"very informative"*. Some staff from MSE felt most patients were able to understand the information given regarding PSA tests and false positives and negatives. One staff member said that they *"emphasised the next steps"* during their counselling approach, including the *"massive improvements in diagnostic capabilities"*. In some instances, a clinician in MSE described a couple of men who have come back into the practice for a further discussion. Another GP from MSE reflected that PSA counselling for this project was a *"normal conversation"* and similar to conversations they would have with other patients who may present after seeing advertising or a friend or family member who have been diagnosed with prostate cancer.

"I've always enjoyed counselling and supporting men through this process; I think it's a very complicated process and they need support" (MSE).

- **Important aspects to cover during PSA counselling:**

Some of the clinical staff across the sites acknowledged that some men will have already had a conversation with a GP or other health professional regarding PSA testing, therefore it was important to explain why previous advice may have been given. There were some concerns raised by one clinician from MSE regarding standardising PSA counselling and how different local clinicians and the other sites had approached PSA counselling:

"It'll be interesting to see how it's gone around the country, but I felt there wasn't a standardisation on the counselling, on how it was going to be done, whether you do a rectal there, whether you don't, do you see what I mean?" (MSE).

PSA counselling was thought to be critical if patients were able to find out or access their results before contact with a clinician, with some patients being able to access their PSA test results online, via clinical notes on their patient record:

"Yes, I think that's why the pre-counselling side of things was good, so we explained if you get a raised result, this is what we'll do depending on the result. So, there was a plan in

place...if they had been shocked by an abnormal result, at least they'd know what the plan was following that" (MSE).

7.1.3 Question 1c: Are there differences between the different models of case finding in terms of supporting the target groups to attend a counselling session/ receiving a PSA test?

Differences between the models are reported in Section 5 above. However, there was no evidence from the analysis of patient-level data to allow attribution of differences in rates of attendance and testing to differences in the choice of model.

7.2 Question 2: What effect does case finding have on prostate cancer or other cancer detection?

Summary

- There were 76 diagnoses of Prostate Cancer present in the patient-level data (vs 87 from the aggregate data) across the 3 project sites. The majority of those diagnosed were from the Royal Marsden site (n=61,80%).
- The finding that 21% of diagnoses were in men of black ethnicity, suggests that men of black ethnicity were successfully targeted using this case finding approach. This proportion would have been much higher, had one of the sites not opened up their health checks to all men over 45 years, resulting in a much higher proportion of white men in their cohort.
- The small amount of data provided by one site does suggest that case-finding can identify clinically significant disease.

7.2.1 Question 2a: What impact does case finding have on the number of people being diagnosed with prostate cancer?

Referral and diagnostics data was provided within both the monthly aggregate data and the patient-level extracts. However, there were discrepancies between the two datasets, as shown in Table 9 below.

Table 9 Referrals, diagnoses and Conversion rates, by site

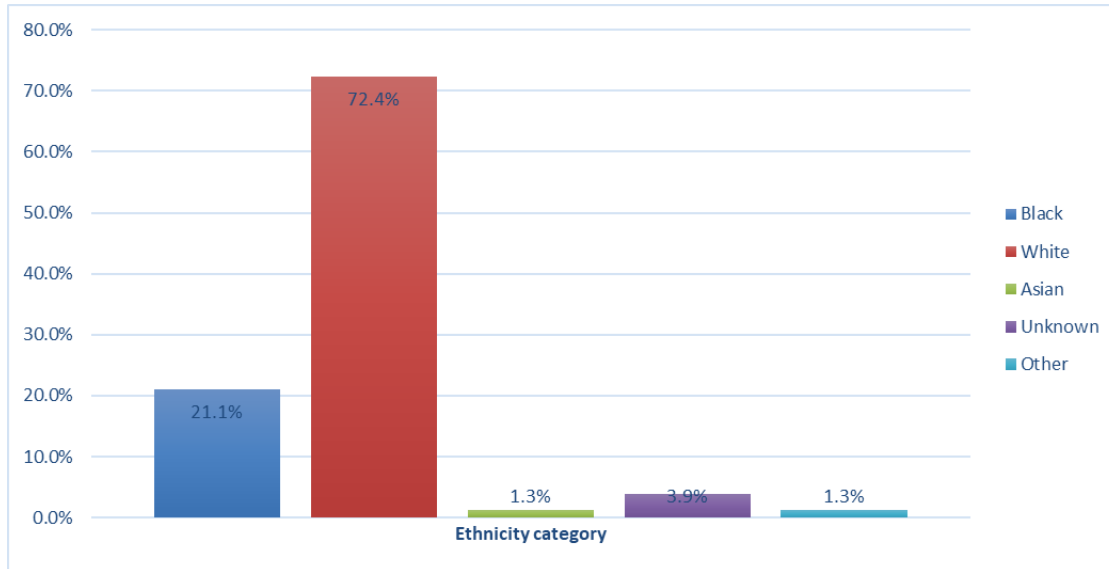
	Site			Total
	Royal Marsden	Mid and South Essex	Manchester	
Aggregate data				
Referrals	276	40	46	362
Diagnoses	52	10	25	87
Conversion rate	18.8%	25.0%	54.3%	24.0%
Patient-level data				
Referrals	213	28	47	288
Diagnoses	61	2	13	76
Conversion rate	28.6%	7.1%	27.7%	26.4%

There were 76 diagnoses of Prostate Cancer present in the patient-level data (vs 87 from the aggregate data) across the 3 project sites. The majority of those diagnosed were from the Royal Marsden site (n=61,80%).

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Analysing this by ethnicity, around 21% were in men of black ethnicity and 72% of white ethnicity, showing that black men were successfully targeted using this method. This picture is dominated by Royal Marsden data and is therefore influenced by the higher proportion of men of white ethnicity within their project population (62.8%). Mid and South Essex only reported 2 diagnoses in their patient-level data. We know there were at least 10 from their aggregate data, and therefore the ethnicity analysis is unreliable.

Figure 37 Ethnicity of men diagnosed with prostate cancer



The 76 diagnoses of prostate cancer came from 288 referrals (in the patient-level data). This provided a conversion rate of 26.4%

There was a relatively even distribution across all age bands and IMD deciles looking at diagnosis, as can be seen in the following figures:

Figure 38 Age distribution of men diagnosed with prostate cancer

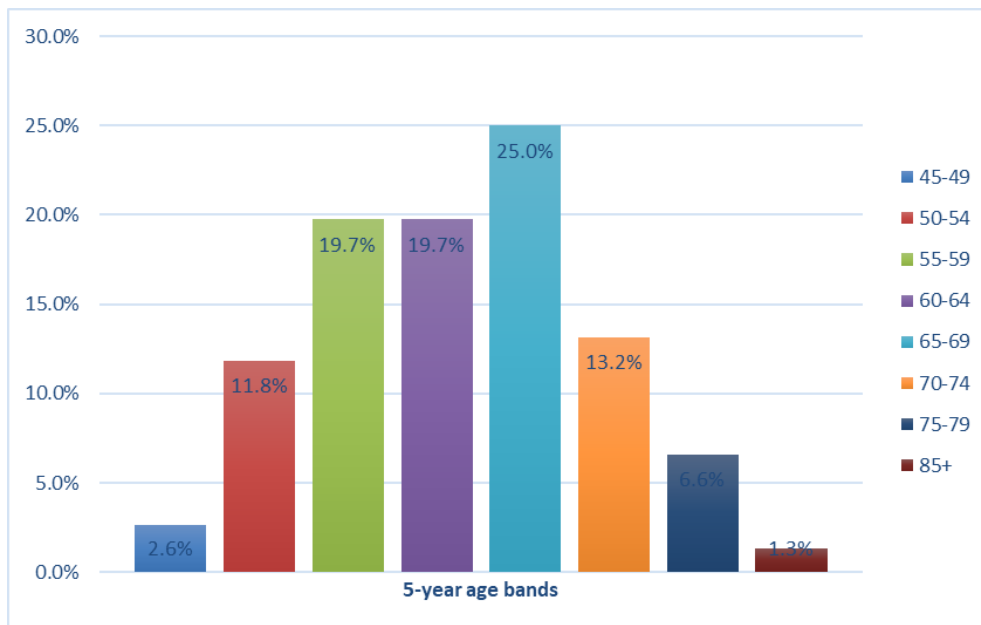
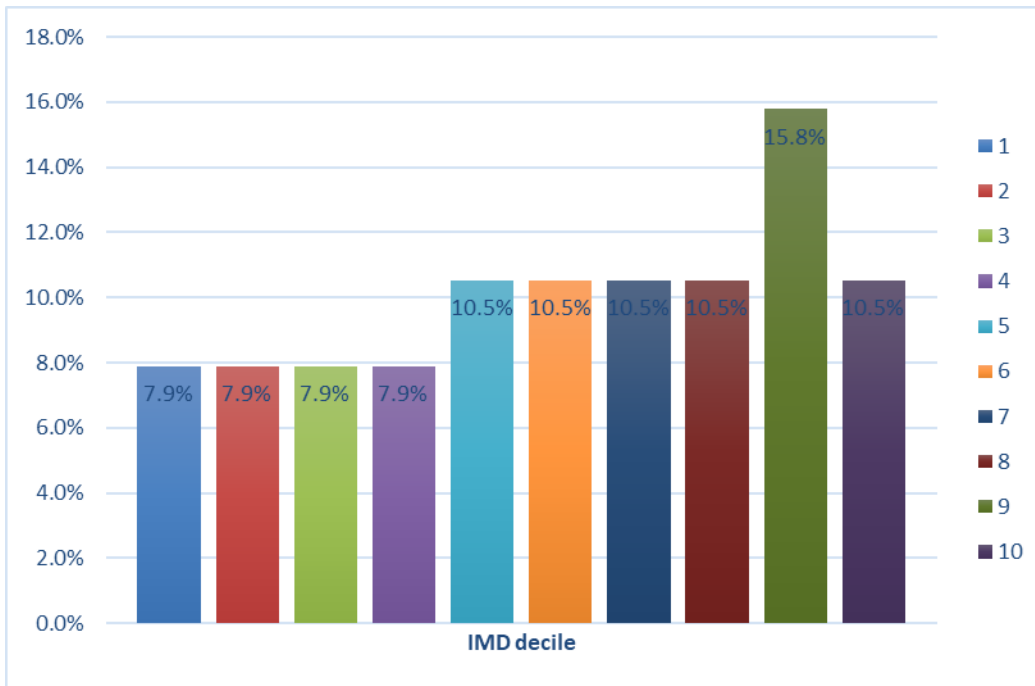


Figure 39 IMD deciles of men diagnosed with prostate cancer



Patient experience of being diagnosed with prostate cancer

Early diagnosis and finding something that is potentially lifesaving was an impact of this pathway, according to men who were diagnosed with prostate cancer. Patients also shared that the pathway provided "peace of mind" or reassurance of their health.

"I was very lucky, my problem arrived when I was about 70 years old. Mine's been caught at the right time, it's contained within the prostate. Because once it leaves the prostate, it can then go out into the bones and other places, like the lymph nodes. So it's important to do something about it as quickly as you possibly can." (P206, MSE)

"I'm very comfortable that whatever bad is happening for me regarding prostate cancer I'm having a superb chance and opportunity to have it treated, to have it stopped, or just monitored, or anything that can prolong my life or save my life. So, it is calming me, it's reassuring me." (P116, RMP)

Some patients also shared how "quick" and seamless everything was from the moment they were referred to secondary care. This is related to getting an appointment for further investigation such as mpMRI and biopsy, being notified of their results, and getting access to the Marsden app (for RMP) where all information sits.

"I got a call from the Marsden saying, "You've been referred to us from the Man Va, I'd like to arrange an appointment for you to come and see us for a test." So, I thought, it's all happened incredibly quickly, and it was all super efficient." (P078, RMP)

"Well really excellent, because I think the whole thing is a very joined-up system, so having got the raised PSA, I think the next step was to, an internal examination, and then there was a quick follow-up, I think I had an MRI scan that afternoon as well, and then within ten days, I had the biopsies, and then within that, they had the results, and had the appointment to get the prostate removed follow-up quite quickly, so it was all moving at quite a good speed really, and clearly, all the different departments are linked up, and every appointment I've had, I've been seen pretty much on time, it's done exactly as they predicted. So, they have

this My Marsden app, so I know when the appointments are, I know how long they're going to be, I know where to go, yes, it's really good." (P149, RMP)

7.2.2 Question 2b: What impact does case finding have on stage at diagnosis and clinical significance of prostate cancer?

Staging and grading of prostate cancer provides an assessment of prognosis, determining whether the cancer is likely to be clinically significant or not. The interpretation of staging and grading is a complex process, but is largely underpinned by pathological findings. A variety of approaches are used, but all essentially determine how localised, aggressive and large the cancer is. Low-risk or 'clinically insignificant' cancer is denoted by a Gleason score of 6 or less, which is used in conjunction with TNM staging to arrive at a clinical assessment. A Gleason score of 7 denotes an intermediate level of risk, with 8-10 high or very high. Both the intermediate and high-risk categories are considered 'clinically significant'.

The patient-level data was of generally poor quality with respect to stage of diagnosis, with only 8 of 76 records providing any data and only 3 of those with usable values.

Supplementary data was provided, however, for the period January to June 2023, for the Royal Marsden Site which included complete data for 35 men diagnosed with Prostate Cancer during that period. It also included full staging/grading data, providing an illustration of the status of the prostate cancers being picked up.

Of the 35 patients diagnosed with prostate cancer, 32 (91.4%; 95% CI 77, 98) men had significant disease (Gleason scores of 7 or higher), and 3 (8.6%; CI 2, 23) had insignificant disease (Gleason scores of 6 or lower).

The following numbers were observed using the TNM classification (T – size of tumour, N – spread to lymph nodes, M – evidence of metastasis) and Gleason scores (two values, indicating the predominant cell type and the second most predominant cell-type – each value being between 1 and 5, with 1 being normal prostate tissue and 5 being tumour cells)

Table 10 Number of cancers at each T stage (TNM classification) – RM Jun-Jul 2023

Stage of cancer (T)	n (%)
T1	2 (6)
T1c	4 (11)
T2	20 (57)
T3a	7 (20)
T3b	1 (3)
T4	1 (3)

Table 11 Number of cancers at each N stage (TNM classification) – RM Jun-Jul 2023

Stage of cancer (N)	n (%)
N/A	1 (3)
N0	34 (97)

Table 12 Number of cancers at each M stage (TNM classification) – RM Jun-Jul 2023

Stage of cancer (M)	n (%)
N/A	1 (3)
M0	29 (83)

Mx	5 (14)
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Table 13 Number of cancers at each Gleason score – RM Jun-Jul 2023

Gleason Score	n (%)
3+3	3 (9)
3+4	22 (63)
4+3	7 (20)
4+5	3 (9)
Gleason Score Sum - median (IQR)	7 (7-7)
Gleason Score Sum – range	6 – 9

7.2.3 Question 2c: What impact does case finding have on number of people being diagnosed with other cancers?

There was no data provided in the patient-level submissions. However, further data was made available for the period January to June 2023, for the Royal Marsden site. Of the 1,209 men seen for PSA counselling, 38 were subsequently referred for bladder investigations of which one was found to have a Grade 3 bladder cancer. No diagnoses were made for penile, renal or testicular cancer.

7.2.4 Question 2d: What impact does case finding have on other incidental findings?

There was no data provided on incidental findings in the patient-level or aggregate data submissions. However, further data was made available for the period January to June 2023, for the Royal Marsden site. The following observations were made on other co-morbidities present. Note that the model at Royal Marsden did include a more general Health Check and therefore 'incidental' findings were intentionally sought.

Table 14 Co-morbidities detected

Co-morbidity detection	All Man Van patients (N=1,209)		
	N	%	95% CI
Alcohol excess	20	1.7	1.0, 2.5
Hypertension	200	16.5	14.5, 18.8
Mental health	1	0.1	0.0, 0.5
Obesity	20	1.7	1.0, 2.5
Smoking cessation	23	1.9	1.2, 2.8
Erectile dysfunction	13	1.1	0.6, 1.8
Urinary tract infection management	13	1.1	0.6, 1.8
Benign lower urinary tract symptoms	42	3.5	2.5, 4.7
Other	287	23.7	21.4, 26.2

7.3 Question 3: What impact does case finding have on service delivery? e.g., routes of referral (number of urgent referrals/other referral routes/ when patients start treatment)

Summary

- The data provided did not allow any conclusion on the impact on other related pathways. However, the number of referrals over the course of the project was relatively small and is likely not to have a negative effect by significantly increasing overall activity. The background/baseline levels of activity on these pathways were not measured.
- Anecdotally, staff felt that the pathway did not impact the number of referrals into secondary care and treated them as any other referral requiring further investigation. However, staff reflected on the importance of ensuring all required information was available at the time of referral, otherwise, this caused challenges with the acceptance of the referral by secondary care.
- Patients, who were referred to secondary care, valued the access and option that they had to undergo further investigation beyond their local setting as challenges with getting appointments at their local hospital were experienced.

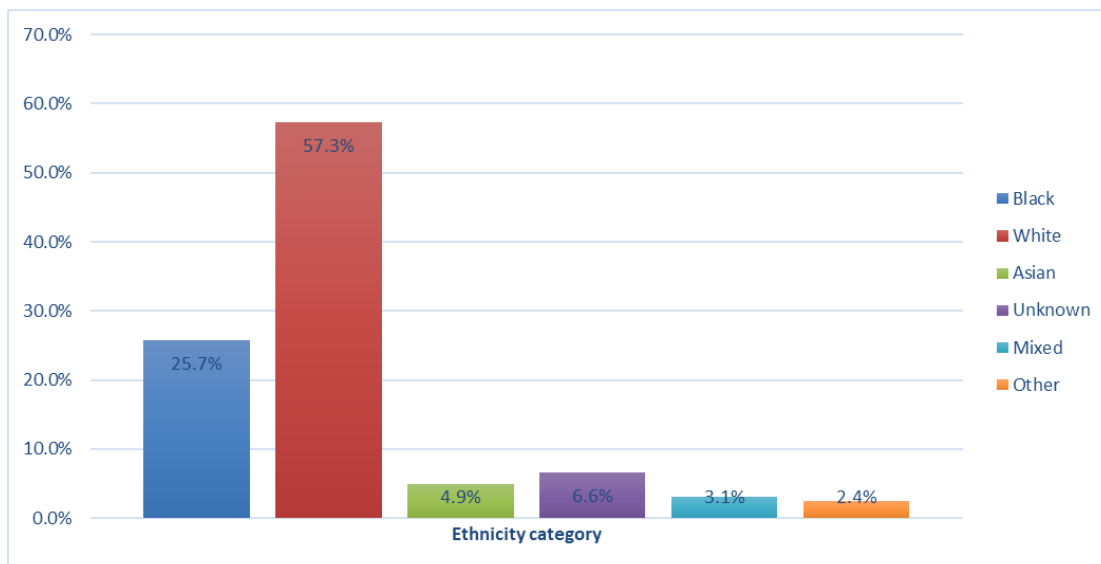
7.3.1 Question 3a: What impact does case finding have on routes of referral for patients referred in target groups?

Of the 3,967 men undergoing PSA testing, 288 (7.26%) were referred to secondary care following PSA testing.

Analysing by ethnicity, the proportion of those referred that are of white ethnicity is just over 57% and those of black ethnicity just over 25%. This can be compared to the proportions of white and black ethnicity in those tested (White – 48.7%, Black – 31.8%). This may be explained by the higher contribution from Royal Marsden who provided almost 75% of the referrals where over 63% were of white ethnicity.

There was no data or analysis on any other referral routes that may have been impacted by implementing case-finding.

Figure 40 Ethnicity of men referred to secondary care



Patient experience of being referred to the pathway (and to secondary care)

Patients viewed the main impact of the case finding project to be early diagnosis (as discussed in Section 7.2.1 above and further in Section 7.4.2 below) and an alternative way to get an appointment and receive further investigation.

"I've had some issues with my local hospital in London, and they've been a bit slow with some of the stuff that I've been dealing with for this year. So, I said, "If I were to go with you, how quickly could I be seen?" And they said, "You'll be seen in two weeks." And bear in mind, this is just around Christmas, I thought, well that's pretty good, I'll go with you, and the Marsden's obviously got a great reputation and everything, so I thought, "well, look, if you can see me in two weeks, I might not see [local hospital]." " (P078, RMP)

One patient who was diagnosed with prostate cancer shared the challenges that he faced with his GP and felt that he wanted more investigations to be carried out.

"I have been in touch with my GP for a long time regarding regular PSA test and till last year all of it was ignored. I've been told that almost a slightly higher level of PSA but still they were telling me it's okay. I was always worried that obviously because of the symptoms and the yearly increasing PSA test I was willing to continue deeper in the investigation." (P116, RMP)

Challenges with the GP were also echoed by other men, who may not have gone into secondary care, namely those who were seen on the mobile van across both Manchester and London. These patients felt that getting appointments or tested at their GP was challenging and valued the access they received, the opportunity to speak to a clinician and the opportunity to get a PSA test as part of this pathway.

"Because I don't go to my GP. I don't go there. So if any opportunity comes for me to try again, fine, I'm prepared." (P005, GM)

"because often with the GP, it's very quick and I always get the feeling that they're very busy, and whereas with the Man Van, I think this is, these people know what they're talking about. So it's the right place to go just to sort of ask those kind of questions." (P110, RMP)

Staff experience of referring patients to secondary care

Staff across the sites shared their experience of referring patients to secondary care for further investigation. In general, referrals from the pathway were no different from any other referrals with most being accepted for further testing (e.g., *"The pathway after referral in is identical. There's no difference."* [Secondary care staff, GM]). The process was particularly smooth for hospitals that the sites were working closely with, namely Salford Royal in Manchester and Royal Marsden's Rapid Diagnostic Centres in London. To note, given the total number of PCNs/practices involved in the project in MSE, data on staff's experience of referring patients to secondary care may be limited.

"Every trust did accept the referrals, there was one incident where they questioned why, and they had to have a repeat PSA, but it was still sent, and they still accepted the referral... I don't know how it works in other trusts, but with Salford, it's just so, it's fast, they get them into clinic, they have the biopsy, or they have the results, and then they go to MDT, and then they're seen in clinic. It's obviously a faster process than other trusts, I reckon." (GM)

"it was explaining to patients and GPs if for any reason external trusts did decline the referral, that then they could either refer to the Royal Marsden and we would see them, or they could repeat the PSA again in six months' time and consider re-referring if it's continuing to go up. In the last couple of months, we've had a few slightly more tricky referrals but on the whole, I would say the referral process has been very smooth." (RMP)

However, challenges with referrals were highlighted when 1) patients were referred to their local hospital; and 2) insufficient information was received to schedule patients for an MRI

and/or biopsy. RMP would assure GPs and patients that if ever their referrals were rejected by other hospitals due to the threshold of the PSA results not being met, the offer to see these patients at the Marsden was available.

"We had to make new agreements with new hospitals. So that was then more slightly challenging just because we started off with a PSA threshold but as per NICE guidelines, they didn't always agree. So that slightly complicated things." (RMP)

Referrals were rejected due to the absence of other tests or information – such as the DRE and ruling out of any urinary infections – required before an MRI and/or biopsy can be scheduled. GM had to clarify and inform the local hospitals they were working with about not having the facilities on the van to, for example, collect a urine sample that would allow them to rule out any infections that could cause a raised PSA reading.

"We got quite a lot of come back from the first hospital that we went to but through communication and education, we made sure that they were aware that we didn't do a urine sample because we didn't have the facilities to do that because...even though you feel like you've communicated and you've spoke to all the different hospitals in part of the project, they still visualise... I don't think they knew what that van was." (GM)

Not having a DRE or testing for urinary infections was not an issue for RMP as they would have conducted their own assessment upon receiving any referral, either from the Man Van or GPs. This was shared by a secondary care staff in RMP.

"Not a problem here at the Royal Marsden because actually we don't run a strict test system because we don't agree that that the best use of resources because we know that means that you over-use MRI inappropriately. So, we see every patient that is referred to us whether it be GP or via the Man Van team. And then we make an assessment, we do a rectal examination and MSU at that point and then make decisions about whether or not someone should be sent through for imaging. But we also have the benefit of having a same day imaging service when we see the patient." (Secondary care staff, RMP)

In MSE, most staff spoke about the guidelines in place and tests required to refer patients for further testing. One primary care staff in MSE shared their experience of following the guidelines provided in the prostate cancer case finding booklet prepared as part of this project. Staff also believed that having these tests before referring them for other investigation is good practice (Further discussion on staff's experience and challenges of navigating the prostate cancer guidelines is reported in Section 8.3 below as it was slightly out of scope from this evaluation.)

"I think having the, reinforcing that thing about checking the urine, and making sure there's no infection or inflammation going on, repeating it, in four to six weeks, that sort of thing is a good thing to reinforce generally. I wonder how many people are referred into secondary care generally, not just within this pilot, and they haven't had those basic things done" (MSE)

Most staff in MSE, however, shared their challenges and frustrations with the tests required before a referral can be made. Staff shared their confusion when the tests required for further testing do not align with one another (e.g., if the PSA test was abnormal but the DRE was normal), and having another PSA test before any further investigation is carried out could only cause delays and anxiety among patients.

"I think we had one that I referred to the hospital, but they said no, you have to do a second (PSA) test even though his prostate examination was abnormal. That's one that I felt like really. I mean, if it's abnormal and then the DRE is normal, then you can insist on why you think for a second test, what if someone has a first test abnormal and their DRE is abnormal why delay things for another four weeks." (MSE)

Secondary care staff in MSE felt that referrals tend to be incomplete and needed more information before they could schedule an MRI and/or biopsy. This was especially the case when patients only had one PSA reading, when in fact, the guideline used in MSE was two.

To note, of the three sites, only MSE required two PSA readings for a referral to secondary care. Not having the relevant updated information have also caused delays.

"In a lot of cases, the referrals are incomplete. For example, we idealistically require two PSAs so we can establish trend, for example, and I'd say a good 30 to 40 percent only have one, and then, we have to review what that patient, that patient's history, where the PSA is, where it could potentially go, and base our investigations on that. So, if they're relatively low, and just above normal, then we'll ask the GP to repeat, refer back and repeat, and in some cases, we just get a blank form with one PSA reading on it. So, we can't base an MRI investigation, a scan, on just that." (Secondary care staff, MSE)

Staff also shared their reluctance to have further tests carried out based on a slight increase in the PSA results as it may not be the best use of resources and could be caused by one's change in routine. This is also a reflection of the reliability of the PSA test in clinical practice.

"we have to be careful with regards to resources, because if we're looking at booking someone for an MRI with a marginally raised PSA, are we putting him unnecessary investigation due to something as simple as a rumbling UTI or a long-haul flight or something like that, or having sex the night before they do their PSA. So, it can be frustrating, and we're being told that we are not allowed to downgrade these patients back, or send them back to the GPs." (Secondary care staff, MSE)

7.3.2 Question 3b: What impact does case finding have on patients starting treatment in the target groups?

The patient-level data on treatment is incomplete. There are quotes from patients who underwent surgery, a fact which was not present in the data, demonstrating the discrepancy between data sources. However, there are records of 48 men having started treatment in the patient-level data.

Table 15 Treatment Modality

Treatment Modality	RM	Manchester	MSE	Total
Surgery	16	2	0	18
External Beam Radiotherapy	9	0	0	9
Brachytherapy	1	1	0	2
Hormone Therapy	3	4	1	8
Active monitoring	0	10	1	11

Patient experience of starting treatment

Patients who were referred to secondary care shared their experience of having their prostate removed or undergoing radiotherapy.

"it's, kind of, not particularly aggressive, it hasn't spread, so I'm going to go into surgery in April and have prostate removed." (P078, RMP)

"When I'd found out everything, I'd initially opted to have the prostate removed surgically. And I was going to go for that. And I went to [location]... I had to have an appointment with the anaesthetist because I had to have a stress test. Because I've got a bad heart, he wanted to see if I was good enough actually to have the operation. So I was told he would give the operation but it was a four-hour operation, and it's quite stressful. Or I could have radiology and I opted, the next day I actually opted for the radiology and not the surgical treatment for me personally. And I think I made the right decision." (P206, MSE)

Some patients were also being monitored as the cancer was still in the early stages.

"it is so early and this monitoring situation at the moment with patients they have that they're still monitoring after even ten years. They're so encouraging and obviously in case something happened, and you're always monitored through a regular process." (P116, RMP)

"But yes, at the moment it's being monitored by the GP, so the GP ... I don't know, I presume they're either going to chase me in a couple of months or they did say to me, just call up in three months' time and book another appointment for a PSA test." (P052, GM)

Patients valued the amount of information that was shared as part of further investigation and treatment in secondary care and the emphasis on shared decision-making when choosing what treatment options to consider.

"When it was decided that I'd have the prostate removed, which is obviously a consultant conversation with myself, I got a whole load of videos and, sort of, information sheets and what have you that really, sort of, explained the process, covered a lot of detail, so it was good, yes, the use of videos was excellent actually." (P149, RMP)

Staff's professionalism, knowledge and sympathy were also discussed.

"My experiences with them up to that point had been really, really positive, everything had been brilliant, they knew exactly what they were doing, but also really nice with it, and sympathetic to my position as the, sort of, person to whom it's being done, and what it means for me in terms of the results." (P078, RMP)

One patient from MSE appreciated getting support with transportation to and from their radiotherapy appointment at the hospital and described how this helped with the need to retain as much water as possible in the body.

"The transport position, for me, I think was very, very good... Because as part of the regular therapy, one has to drink quite a large quantity of water. So I've normally had two and a half, three pints of water by 7:00 in the morning. Then I've got to get from Essex to Southend, which is another 40 minutes. So if you've got someone driving you, it's much easier to do that then. You've got to keep the water in you all the time." (P206, MSE)

7.3.3 Question 3c: What impact is there on other urological pathways?

There was very little data provided on other pathways outside the project patient flows. Royal Marsden did quantify bladder cancer referrals in the 6 months from January to June 2023, where there were 38 referrals.

7.3.4 Question 3d: How many patients on the pathway received an mpMRI?

The patient-level data shows that of the 288 men referred for further investigation, 200 had an mpMRI investigation.

The evaluation team also heard from patients who underwent mpMRI as part of their further investigation in secondary care across all projects.

"they arranged initially to have an MRI scan, just given that my PSA was slightly raised. The complicating factor is, I've got an ICD implanted, I've got cardiomyopathy and I've got an ICD implanted, so MRIs are a bit more tricky, you have to have someone come along and disable the ICD for the duration." (P052, GM)

"...and then they arranged MRI scan for me that day, which was really good." (P078, RMP)

"And he said, "Yes, there's something strange going on, but we won't know what until you've had your MRI scan and probably a biopsy as well." So I had that and that told the whole story then, so that was good." (P206, MSE)

7.4 Question 4: What are the benefits and challenges of case finding?

7.4.1 Question 4a: How much did the service cost to run in each site and what was the resource requirement?

Summary

- The most predictable costs associated with delivery of the case finding project were the clinical staff working on the vans and payments to GP practice/PCNs in MSE. However, some adjustments to the clinical configuration of staff were made over time but within the allocated budget.
- Other anticipated costs were set up costs associated with the vans, communication and engagement, and all sites provided some form of training to clinical staff.
- Unexpected costs were mainly costs associated with resolving operational issues.
- There were different approaches to sourcing the staff required to deliver the project, including reaching out to local clinicians for volunteers and relying upon existing staff from the host organisation or primary care to deliver the project.

Specific financial information was not made available to the evaluation team from NECS; however, NHS England are aware of how much funding was allocated to each site. An attempt was made to obtain information regarding clinical and implementation team members roles and pay bands during the project profile data collection to establish specific staffing costs for the project in each location (See Appendix 3: Project & Resource Management sections of project profiles). However, a sufficient level of detail was not forthcoming during this exercise. Therefore, this section instead focuses on discussions with sites regarding costs, including unexpected costs, and resources to deliver the project, including staffing and training.

7.4.1.1 Expected, unexpected & unique considerations

• Expected & anticipated costs:

RMP and GM staff reported that one of their most predictable and fixed costs was staffing and paying for clinician's time while they were delivering clinical sessions on the vans. However, GM staff reported unforeseen cost to their staffing model by adding a phlebotomist to their clinical team and an administrator at a later date to support the project. It was noted this was manageable within their overall budget, as GM staff reported an overall underspend, and the Phlebotomists were provided by a company called EMS, with whom they had an existing contract to supply the van. Other anticipated costs reported by the GM team were as follows: i) communication and engagement, ii) leasing and wrapping the van, iii) some project management support provided EMS and iv) instructing a company to design the van. The latter is noted to have come out of the Cancer Alliance budget prior to the official case finding project starting.

In MSE, anticipated or predictable costs were the designated payments to each practice or PCN for conducting the case finding work. Staff managing the project in MSE felt that GP practices or PCNs were "doing a lot for a little".

"Overall, the price that we actually charge is very, very minimal given the amount of work, and I think the GPs and the practices and the PCN that participated really are the champions here, they are the ones who have led the way, extremely cost effective." (MSE)

Colleagues from RMP reflected on not spending as much money on fuel, servicing, or drivers as they initially anticipated, due to the van remaining in one location for longer periods of time and the use of other available support such as volunteer drivers, therefore saving money. RMP staff had also budgeted a set amount per week for electricity to run the

van, however this would not have been enough given the increase in electricity prices in 2023 and they were fortunate in most places not to have to cover the cost of electricity.

- **Unexpected costs & unique considerations to this project:**

Importantly, staff from RMP emphasised the ad-hoc and unexpected costs, associated with operational issues of running the van and it was critical that *"the budget was ring fenced and flexible enough that we could access it for those specific things"*.

"We probably had really high expectations of how much it was fuel, servicing and drivers,...where we ended spending money was "We need an air conditioning unit now", "We don't have any paper" or "The door's fallen off the van and we've got to get a handyman out, and it's parked in Wembley, there's no way we can get our handyman from the Royal Marsden out there in time"...the unexpected costs and having what we needed on the van."
(RMP)

As mentioned in Section 7.4.4, the difficulties in accessing routine support provision such as IT support, estates services and managing clinical waste when the van was located away from the main RMP sites had financial implications, as described below:

"From an expenses point of view, is that because the van was mobile and wasn't in a static location that was near to the hospital...our support teams didn't see it as part of their responsibility to look after it, because it was just too complicated...So, the support that we needed had to be outsourced...normally you would just reach out to your facilities team to fix something or reach out to your IT team...that was not available to you, we had to find other ways around that. And then of course had to pay for those things, and that's where the impact of the budget came that was unexpected." (RMP)

RMP staff described that the van was not easy to close up or shut down and move, so it could not be used for transportation. Therefore, there were some noted costs for taxis, firstly, to transport staff to the van's location to deliver the appointments/clinics and secondly, to transport consumables.

"Another issue with the money was...the remote location, staff not used to commuting there as their daily commute because we kept on moving every two weeks. So, if we want to be able to see all the patients and don't want to cancel it, taxi is the way forward, that costs money because not all the staff live in one location, various locations, various taxis, we have spent a significant amount on that." (RMP)

Finally, a staff member from RMP identified that the financial management of this programme did not fit neatly or align with traditional NHS budget approaches and as a result there was a need for a *"change in operational leadership"* and discussion of this project outside of standard finance meetings. During the focus groups, RMP staff did raise an issue with delays to the second half of their funding for this programme, which had impacted upon their ability to sustain their site's involvement for the remaining months of 23/24 financial year.

7.4.1.2 Staffing

As highlighted above, the most predictable costs associated with delivery of the case finding project was staffing. More specifically, the expense associated with configuring the clinical team to run the vans in RMP and GM, and payments to GP practices/PCN in Essex. Both staff from RMP and GM acknowledged that there were changes to their staffing configurations over the course of the project. For example, RMP described staffing being their most significant expense, which changed in response to needs of the project and staff learning:

"the most expensive things attributed to the budget were the staff, which is fairly straightforward, we didn't have too much movement in the staff group, I think, we had what

we thought it was originally going to look like and that evolved a little bit over time...and I think maybe the constellation of who we needed changed during the project" (RMP)

Whereas, in GM, staff reported they were uncertain of the exact staff configuration in the early stages of project delivery but arrived upon a good staffing model once an administrator and phlebotomist were added to the staff on the van:

"When we first got started, we weren't entirely sure, in terms of the volume of staff that we were going to need but we agreed we'd have two clinicians and then later on we thought an administrator on the van would be the best way forward as well. We also had the driver of the van and then we had our phlebotomist as well. I think that worked really well actually, having the two clinicians and the phlebotomist." (GM)

- **Identifying the staff required to deliver case finding:**

Across the three sites, there were different approaches to finding the staff required to deliver the case finding approach. In RMP, staff who worked in existing relevant roles or departments within the host organisation (Royal Marsden Trust) were asked to work on the van. RMP implementation staff commented that this approach required a certain type of staff member who were willing to travel or move to different working locations, as well as staff who could work with the uncertainty of this project and there was a need to provide the appropriate support for staff given such uncertainty, as described below:

"I think choosing the right kind of staff and having the right kind of staffing support is really important, it's not a project that everyone may feel comfortable with, and the work can be a bit chaotic and working in different areas, all of that kind of thing, so just having a group of staff that are just really on board with that, and take those things in their stride, super important." (RMP)

Staff from the RMP implementation team further commented that they felt this was not a job clinical staff would want to do on a full time or long-term basis, due to the "chaos" and "repetitive" nature of the conversations, resulting "boredom". In the future, to avoid attrition, the RMP team would consider a rotation system for staff, with the appropriate management and operations support, where staff would spend "a couple of months or longer" on the van as learning opportunity.

In GM, the implementation team reached out to local clinical staff via the Cancer Alliance and contractors to "see who was available to provide their time". Over the course of the project, the team at GM reported they developed a pool of key members of staff who were either retired or had more availability. The noted impact of this staffing approach was:

- i. "it was relatively easy to fill the weekend clinics but the clinics during the week were a little bit more challenging because a lot of people obviously have full time work",
- ii. reliant upon "a lot of good will from colleagues through the Cancer Alliance",
- iii. difficulties finding someone to cover if clinicians phoned in sick or cancel their shift, as the shifts on the van were akin to bank shifts and not contracted hours,
- iv. the need to maintain engagement of staff offering to take on van shifts,

"We had one or two people who were there almost every single week. That was really useful. Towards the end of the van, we lost a little bit of engagement from some staff members. So, on occasion, we did reduce the sessions down to just having one staff member which did seem to work okay because the majority of the staff were pretty experienced by then. But I think two was the ideal number really moving forward" (GM).

Furthermore, staff from the GM implementation team looked to offer "a slight incentive" via the payment schedule for staff willing to work on the van, however there were significant challenges in paying staff from different NHS trusts or organisations.

"One of the things that we found really hard was finding a payment process for staff that work outside of your own organisation. That became really challenging. Then obviously that

resulted in staff pulling out of shifts at points and not wanting to continue working on the van which all seemed to happen around the same time as doctor strikes and winter pressure so at points we were left with literally no staff and no option but to cancel sessions, which was quite a shame. I think that would be ideal if next time we did it we could have more of a set group of staff that were paid to just work on the van." (GM)

The above staffing approaches and challenges did not apply to the project in MSE, as existing GP practice or PCN staff delivered the case finding project, where the workforce was available (See challenges described in Section 7.4.4). Instead, in MSE, individual GP practices/PCNs decided which staff roles (e.g., GPs, physician associates, advance nurse practitioners, practice managers etc.) and how many staff from each practice/PCN were involved in delivering the project. During the MSE implementation focus group, staff commented upon cost-effectiveness of involving and upskilling the wider workforce in general practice and not necessarily expecting the GPs to deliver the case finding clinical pathway, as described below:

"So, you can absolutely have a GP delivering this, but we know how stretched general practice is at the moment as well, so it did make a lot of sense to really think about using this as an opportunity to upskill some of the wider workforce, given the fact that this was about having those discussions and being able to articulate with patients around what the benefits and possible disadvantages of having a PSA test was...So, if we're thinking about cost effectiveness to practices...for them to put one of the wider workforce in this particular clinic, it's more cost effective for them to do that than to put a GP into that particular clinic." (MSE)

7.4.1.3 Training for clinical staff

In MSE, the "educational package" for clinical staff was reported to be "relatively straightforward", with one of the ICB primary care cancer leads developing and delivering the necessary training sessions.

"a series of three webinars that ran at the beginning of the actual pilot, that focused on areas around prostate cancer, the concept of prostate screening, and the at-risk groups, and then a little bit about history taking, shared decision making, and some work around dealing with uncertainty as well" (MSE).

During the MSE focus group, the importance of upskilling clinical staff on how to manage the uncertainty associated with delivering the project was emphasised, especially if this was not part of the clinician's day to day work or traditional job role:

"We were aware of the fact that these clinics may be run by advanced nurse practitioners, and although within their model, they will cover bits around uncertainty, this is slightly different, we're talking about prostate cancer here, and we're talking about at-risk groups as well, so we're not talking about the mass population, we're talking about identifying people that are at risk. So, there is that whole thing around dealing with uncertainty, there is that whole thing around bringing them up to speed on what PSA is, how good or bad a test it can be...with that comes questions, comes concerns, and understandably so, as a GP that I think I understand prostate cancer and PSA testing, but I still feel that the guidance is slightly, is quite murky" (MSE).

Staff from RMP felt delivery of the case finding approach suited a nursing job or role, noting *"they're good at it, and they can get trained up pretty quickly"*. However, in a similar point to the above regarding uncertainty, a colleague at RMP described that working to delivery case finding on the van could be a positive opportunity for nursing staff to develop independence:

"the idea was that they would really learn a lot, both clinically, but also in a nursing sense, what nurses tend to struggle with from an educational perspective is independence, they're very used to operating in their teams, on a ward, and they've got a staff sister, and they've got a matron, and they have that very hierarchical system, and when they go to more

outpatient-based settings, again, it's got quite well-defined roles, and this role is not well defined at all, it's anyone can walk and say almost anything" (RMP).

7.4.2 Question 4b: What was the patient experience of the different models of case finding?

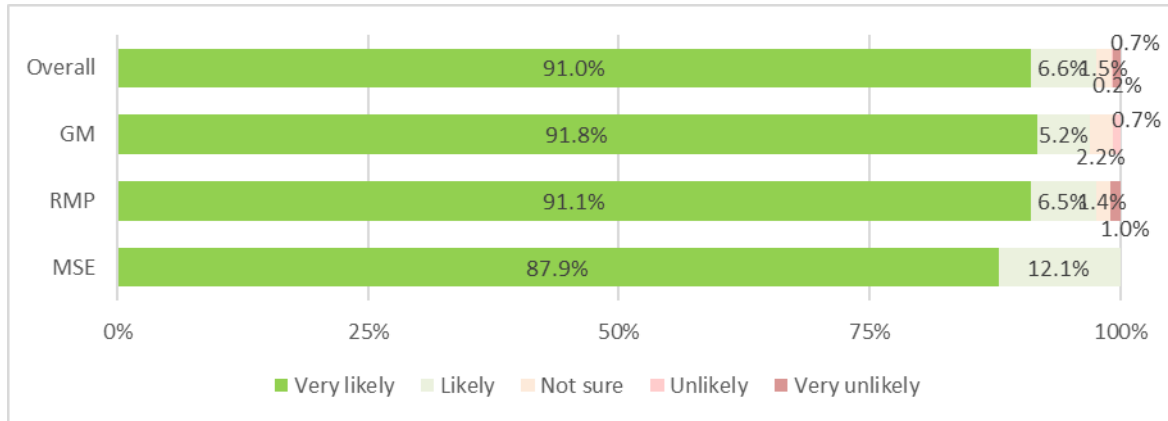
Overall satisfaction of the pathway	<ul style="list-style-type: none"> • 97.6% of patients would "likely" or "very likely" go through the whole process again • Staff described patients as being "very grateful" and "appreciative" of this opportunity
Impact of case finding	<ul style="list-style-type: none"> • Early diagnosis of prostate cancer, peace of mind, educational, having access to services and positive staff interactions, lifestyle change and confidence in the NHS were the impacts that patients experienced as part of this pathway.
Getting invited for a PSA test vs asking for one	<ul style="list-style-type: none"> • Men valued being invited to attend an appointment and not having to "drive" the process with their GPs • Despite the perception that men are reluctant to get health checks, men would take up an offer for an appointment if invited as seen through other invites (e.g., bowel cancer screening).
Novelty (and challenges) of the mobile van model	<ul style="list-style-type: none"> • Mobile vans made the offer for a PSA test specific, visible and accessible. Men also saw this as an another route to get a test that does not rely on their GPs. • Challenges with this delivery model involved uncertainty on whether a DRE would take place on the van, whether their results would be included with their GP records and admin issues such as unattended phone calls or emails.
High awareness of prostate cancer risk factors	<ul style="list-style-type: none"> • Overall, men had a reasonable level of awareness of the prostate cancer risk factors and were well-informed as they were not "surprised" and welcomed the initiative. However, this should not be generalisable to all men as staff have reported that some men were uninformed, which made PSA counselling further valuable. • Men still felt that more could be done to raise the public's awareness further.
The need for a long-term approach to prostate cancer detection	<ul style="list-style-type: none"> • Men consistently felt that a national programme involving prostate cancer detection is needed. • This programme should focus on improving access to services, raising more awareness on prostate cancer and establishing better diagnostic tests. • Staff also echoed that the "next step" after this programme as being unclear.

7.4.2.1 Overall satisfaction with the pathway across sites

An overwhelming 97.6% of patients who responded to the survey would either "very likely" or "likely" go through the whole process again given the chance to. Specifically, 100% of patients in MSE would "Very likely" or "Likely" go through the whole process again if given the opportunity, while this is 97.6% and 97.0% for RMP and GM respectively. Patients were also generally satisfied with the pathway, which is expanded further in Section 7.4.2.2 below on the impact this case finding pathway has had on them.

Figure 41 Responses for the following statement: "If a similar health programme was introduced in the future, how likely would you be to go through the whole process again?"

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Several men across the sites have also shared that they have taken up bowel cancer screening following this pathway and valued the opportunity to rule out any possible health concerns.

"I would definitely go, and already have gone through the bowel cancer screening one where you do it by post with a sample. So, I would take anything that's going... but, yes, early diagnosis, I think is usually extremely helpful, isn't it?" (P007, GM)

Patients also felt that whether they were at risk of a specific condition was an important consideration of going ahead with the whole process again. This notion is due to not wanting to take away opportunities from others who might need the consultation and testing more.

"If I thought it was something that I was likely to be susceptible to, then, yeah, absolutely. If not, then I'll probably not, I'd probably not want to take up the space of somebody else who might be more likely to suffer with whatever it was they were testing for." (P204, MSE)

"yes, I would do it again, as long as it's clear what you're having, as I've, kind of, stressed, and it's good because it raises people's awareness." (P194, RMP)

Equally important is when patients were asked about a "magic wand" that they would have wanted as an area of improvement, most men from all sites said no improvements were needed. However, those who did provide feedback on areas of improvement are reported in the Section 7.4.2.6 below.

"I think whatever I went through was perfect because for a van to come near to you for you to go for a test it's much better." (P026, GM)

"There was nothing negative about my experience. So, trying to look for improvement for the sake of it, it's just pointless really." (P091, RMP)

During interviews and focus groups, clinical staff described patients as "very grateful" for the service and "really pleased to be invited in." Staff reported that men felt that this was a specific or special initiative for them, and staff were pleased to be reaching out to underserved groups and addressing health inequalities:

"I think men generally feel like women have a lot of screening tests and they haven't got any, so I think for most of them they were happy that 'oh, actually someone is paying attention to our health. We're not the ones coming to demand for it. Someone is actually offering us this screening test'. So, there was a lot of positiveness around it." (MSE)

"I think everyone's very grateful for the service as well. We have a lot of gentlemen that come through that don't tend to go to their GPs or they come with low health literacy and just giving them information and education, you can tell that everyone is very appreciative... everyone says that they wish that this was more accessible to everyone." (RMP)

7.4.2.2 Impact of case finding on patients

- a) **Early diagnosis of prostate cancer.** As shared in Section 7.2 above, men valued getting an early diagnosis of prostate cancer to monitor their condition and undergo treatment if required. Those who were diagnosed with prostate cancer described feeling "lucky" or "calm" after having an early diagnosis that determined if they had radiotherapy, surgical removal of the prostate or active monitoring.

"I was very lucky, my problem arrived when I was about 70 years old. Mine's been caught at the right time, it's contained within the prostate, that's a very important part. Because once it leaves the prostate, it can then go out into the bones and other places, like the lymph nodes. So it's important to do something about it as quickly as you possibly can." (P206, MSE)

"So, to be honest I was prepared for this final result, and I am very fine with this considering that I know it's a positive cancer, which is not very fine, but that because it is so early stage and because it is caught so quickly and because I'm in the best available hospital to be treated with." (P116, RMP)

Men who were not diagnosed with prostate cancer shared the same sentiment, as early detection and treatment would be ideal.

"The early you know, the quicker you can be treated, and the greater success of the treatment." (P209, MSE)

"yes, early diagnosis, I think is usually extremely helpful, isn't it?" (P007, GM)

- b) **Peace of mind.** Following the theme above, patients felt "reassured" and had "peace of mind" with their health given their risk of prostate cancer. This feeling was reflective of whether a test was positive or negative as some men, following these results, did not feel the need to worry anymore despite understanding the reliability of the PSA test.

"I think it has really cleared my mind to know that maybe for now there's nothing like that. And then if the van would be another year when they come around I will go and have a test. So, yes." (P026, GM)

"...my father's had colon cancer, and I know that somebody somewhere or some machinery somewhere is looking out for me. You think, oh, good, and now I can carry on for another five years or however long it was between tests, happy and acknowledged that nothing's wrong down there. So, yeah, it's positive." (P202, RMP)

- c) **Educational and spreading the word to raise awareness.** Men who went through the experience felt that this pathway was a good awareness campaign, particularly among those who are at risk of prostate cancer, to undergo a PSA test and speak to a clinician about any concerns that they may have.

"So, as it was there in the sports centre where most men go to anyway, and somebody approaches them, I think that could be a good awareness campaign and programme... I think it's a positive thing to have that awareness programme that captures the outliers if you like." (P091, RMP)

"In general terms, in the light of increasing awareness of the disease, then yeah, it's really good because it's not talked about enough and it's not because men generally are wary about talking about that." (P169, MSE)

This awareness was not only beneficial for the men, but also for people closest to them such as their partners, family or friends, to keep the conversation going and encourage others to come out to have a test.

"I think it might have been more wife said, "Oh there's this Man Van, do you want to go and check it out?" But I'm not really sure, if I hadn't heard about it, I suppose, I don't know where you hear about these things." (P110, RMP)

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"With the van there I found that a few other people that I knew that I hadn't seen in a while, were at the [laughter] van too. So, it seems to be a very positive thing that people are coming out of the woodwork, and we were having the same discussion. That people need to actually take this up." (P005, GM)

This was also echoed by staff who described that awareness of the service was spreading via word of mouth, particularly for GM & RMP.

"It's great when you see them have their word of mouth and they tell their friends to come and see us. They're like, "I'm here because my friend came, and he was referred on and it was just all really prompt and smooth, and he felt reassured through the entire experience so that's why I've decided to come." (RMP)

"I was chatting with them when I was doing the blood, the fact that they turned round and said they were going to get their friend or their uncle or their relative to book on, see if they could get on to the van." (GM)

- d) **Access to relevant services.** This pathway provided men, in particular black men, the avenue or access to get a health check. Access to these services is not only about the type of test being offered but also whether it is within a reasonable travel distance or time and whether it is free.

"I think the way I came to it was through something that was aimed at primary a black audience, and it was through shared experience of those people there present, if they were to do the same again and highlight anything that was a potential health concern then I would certainly look at it." (P043, MSE)

"Yes. I mean, there's no reason not to, and we live quite close to our doctor's surgery, so everything's organised there. It's a ten-minute walk, so there's no reason not to do it. I can't think why you wouldn't take up that sort of thing, the offer." (P072, RMP)

- e) **Positive staff interactions.** Patients felt that they were respected by members of staff, who were described as "friendly" and "professional," and had their concerns addressed accordingly. The staff made patients feel at ease and comfortable through their knowledge, demeanour and empathy.

"I was treated like a human being. The appointment was professional and informative but not overly 'clinical' " (GM – patient survey)

"I was pretty impressed. And I have to say, everyone I met was super nice, but also, I felt I was informed all through this, "So, this is what's going to happen next." "This is what's going to happen next." so when everything happened, I wasn't sitting around waiting at any point for more than about five or ten minutes, which is more, and people were, kind of, just checking on various things." (P078, RMP)

"It was a nurse, she was extremely friendly, very knowledgeable, she told me that she'd been doing the trials for quite a while. She had a lot of experience talking to men and answering every question possible, I had loads, obviously, ...I felt very at ease." (P205, MSE)

- f) **Lifestyle change.** Several men shared that the PSA counselling with the clinician has encouraged them to undertake a lifestyle change by drinking less and eating healthily.

"it made me think and my diet has changed, less red meat, for example. I didn't drink very much beforehand, but I hardly drink now, alcohol. I exercise regularly, and I'm conscious, I cut down the amount of liquids I drink in the evening which helps my sleep pattern." (P020, GM)

"I've been on, kind of trying to live a bit more healthy or eat more healthy food, quite conscious of my lifestyle as well so no impact at all." (P064, GM)

- g) **Confidence in the NHS.** One man shared that he has greater confidence in the NHS following this experience to help advance our understanding of the pathway further.

"I think it's boosted my confidence in the NHS... the medical science that people are inside and outside the NHS, including people like yourselves, are taking a greater interest in men's health and particularly prostate. So that is encouraging, and I think it's certainly a move in the right direction." (P169, MSE)

- h) **Not much or none.** Equally crucial is that some men did not feel that the pathway had a big impact on them, mainly on the basis that this was part of their ongoing PSA monitoring and the nature of the test which was a simple blood test.

"None really, because I've been doing the tests regularly and I haven't contracted anything, really haven't had any impact on me." (P046, MSE)

"...it hasn't had any impact on me. It was a medical procedure to go through to just test, which is fine. It wouldn't have any impact on me." (P038, GM)

"I mean, I don't think its had much impact at all." (P070, RMP)

One man shared that getting a negative result provided reassurance that everything was fine; this, however, did not provide a "massive" impact on him, suggesting that "impact" can be viewed differently (especially from those in b) above) depending on one's circumstance and the weight one puts on its meaning.

"I suppose, not a massive impact, because as I say, they didn't find anything, so it's nice to be reassured, and I didn't have any particular concern that I might have any prostate problems." (P072, RMP)

7.4.2.3 Getting invited for a PSA test versus asking for one

One of the reasons patients took up the offer of an appointment (and later a PSA test), which is also mentioned in Section 7.1.1 above, is receiving an invitation to get a health check or tested. Men described having to drive the process of asking for a test with their GP as there is no national programme involving prostate cancer diagnosis as per the Prostate Cancer Risk Management Programme. This "driving" of the process is further causing frustrations, especially when they cannot get appointments.

"I would never of had a PSA because there's no... well, until recently there was no calling from the doctor to say, 'Oh you know you're this age, we need to start doing this now'. So, I would never have known." (P103, RMP)

"When I requested to be tested, my doctor said, 'You'll only see me if you've got a couple of symptoms, and we have to have a conversation'. So, he was reluctant to go forward with it. So, I walked away and did nothing, and it was only after a couple of friends over a period of two years said, 'It's your right to be looked at by a doctor. You're in a vulnerable group'. So, two years later... I went to my doctor (and requested for) a PSA test and checked for prostate then he decided to do it because I asked a second time." (P023, GM)

Following on the above sentiment, patients appreciated getting an invite (especially having inquired about the test in the past), valued how proactive case finding is and felt the need to reciprocate the efforts put into sending these invites by responding to them.

"I had an invite to go to a local clinic that they explained that men of my age, obviously, are very prone to it. So, they're, obviously, being proactive and doing testing." (P041, MSE)

One patient who was referred to secondary care and later diagnosed with prostate cancer shared that he may have not gotten himself tested had it not been for the invite from this surgery.

"I don't think, if I hadn't been contacted, essentially out of the blue... I would not have probably got myself tested... because who knows, I might never have done it, then it

might've been at a much more difficult stage that the cancer became apparently." (P078, RMP)

The men interviewed further discussed a common reflection and belief around men's health attitudes – specifically their reluctance or lack of interest – toward scheduling an appointment with their GP and getting a health check. Those interviewed described the "stigma" surrounding seeing a doctor and an "out of sight, out of mind" mentality with one's health.

"I think men have a different attitude to health than women do because it's like out of sight out of mind, nothing happens or they're not feeling it or anything and they won't do anything about it, they'll just leave it." (P103, RMP)

"So I think in the Black community that I know of, there is the, "If I don't know I have cancer, then I shouldn't go look for it. What I don't know won't hurt me." While if they know it's just an enlargement, the possibility of just an enlargement rather than cancer, they probably would go for the test faster." (P217, MSE)

This theme, however, is more relevant to the act of seeking an appointment or raising concerns with their GPs, as this case finding pathway showed that men would take up an offer for an appointment or PSA test if invited, further suggesting the value of an invitation. This response to an invite is also not unique to this pathway as men also shared that this would be the same response if they were invited for other health checks, such as renal function test, bowel cancer screening or loneliness, as a result of hitting a specific demographic group.

"Yes, because I get regular periodic text reminders from my GP about going for a diabetes check, renal function check, asthma review...if that was added to that, that would probably be a good idea, because when I get the text, then I will contact the GP." (P084, RMP)

"[bowel cancer screening] was something that I did willingly when I was requested. I got a random email from the NHS saying they were running a campaign and if they wouldn't mind, which I didn't mind. I sent the sample to my GP and got the result back that it was fine." (P091, RMP)

7.4.2.4 Novelty (and challenges) of the mobile van model

There were positive reactions to seeing a mobile van (i.e., The Man Van and This Van Can) in the local community in London and Manchester that offered a PSA test. Men valued how accessible and visible the pathway was through the vans. Namely, having the vans located in public, high-traffic places such as town halls, car parks at the local supermarkets (e.g., Asda, Tesco, Morrisons, IKEA etc.), and high streets made the pathway easy to access and visible to the members of the community, given that one of the goals of the pathway was to increase awareness about prostate cancer and as an educational platform for men.

"I think the van was located well in the car park. I also think why it's helpful being visible is a lot of men don't like going to the doctor's particularly, I'm one of them, and secondly, we all feel at the moment, with COVID and respiration, viruses and goodness knows what else, and the NHS under such great pressure, fussing a bit, so let's leave it. But having the van there, you feel, yes, they're interesting, they want us to come, it's available, and it's not too hard to do. So, let's do it." (P020, GM)

"As I said, broadly speaking, I think the van's a good idea. It's in the car park of a local gym and centre, so you get a lot of men going there. There was a stall at one stage, I saw there, because it was a gym I used. I think positive, generally." (P101, RMP)

As mentioned in Section 7.3.1, the mobile vans also provided an alternative for men to get a PSA test rather than relying on their GP. Men felt that getting an appointment at their GP was challenging enough, let alone having to request a test. Therefore, the specific offer of a

PSA test through the mobile vans made attending an appointment easier and an obvious decision.

"It was at the mercy of the general practitioners and to be brutally honest some general practitioners do not like to be bothered if you have concerns. And a lot of men don't want to bother people who don't want to be bothered. So, they're reluctant to go to doctors to say, 'Can I be tested or screened?' " (P023, GM)

Staff from RMP & GM reported that some patients had tried to get a PSA test in primary care and had been unsuccessful, so these individuals welcomed the invite and opportunity to be tested, as described below:

"What I was surprised to hear is the number of patients who had sought a PSA in primary care and had been turned away from one, saying you do not require this test. They were very, very keen to have the test. That was a huge relief for some of these patients who were then having negative investigations and were seeking that, albeit we appreciate the limitations of the PSA alone." (GM)

"We did also see quite a lot of men who had come, who had said that they had previously asked for a PSA test and had been, not warned against it but left feeling that they weren't allowed one and told, "Well why would you want one, you don't have symptoms." I would say it's probably not a daily thing, but I would say probably at least once a week a man would say that. It's quite a lot, which is interesting. Then if someone has already had a conversation with their GP or whoever and they've been warned off one, when we then have to speak about the pros and cons, we then discuss this is why." (RMP)

In addition, men also felt that having the vans focused on prostate cancer reassured them that they were discussing something specific to men with clinicians who are trained to discuss and conduct tests on them.

"I suppose there's the sense that if you go to the GP, it's a general practice, which is great, but if you are going to something like the Man Van, you are getting something that's very focused on a particular area. That's quite reassuring, I think, to know that you are talking to people who really know about this stuff." (P110, RMP)

Men also shared that having the mobile van in different areas or communities can help relieve pressure on GP surgeries and provide men with more access to a PSA test. The van could also be located at places with more at-risk communities as part of a targeted approach to reach these communities.

"...it probably raised awareness, the fact that it's mobile probably will help because the way the NHS is struggling at the moment, doctor's surgeries, appointments, etc., it's not great. I suppose, having a van and having it mobile, you could effectively target areas where the communities are of higher risk like in the cities, like London, Birmingham, where the ethnic make up is of higher risk. So, having a van would be good in that respect." (P194, RMP)

A few men also shared several challenges that they faced as part of their experience being on a mobile van.

- a) **Concerns over having a physical or DRE** in a high-density, public area through the van, which caused some levels of anxiety among men, but went away upon realising that this was not the case.

"My initial thoughts were, am I going to have a prostate exam in the, effectively, in the middle of a high street? Because of where the van was parked. So, I was a little bit, apprehensive is probably, maybe even slightly embarrassed because of where it was positioned." (P194, RMP)

"there is a certain embarrassment for men around the physical testing for the disease so when they come to the van as a passerby why insist on a health number which very few people carry." (GM – email feedback)

Staff reported that some patients expected more invasive tests or examinations to take place at their initial appointment, for example when discussing DREs.

"I think most men are quite relieved that we're not doing it (DREs). I think most men are expecting that we will. It obviously is quite an important part in what we do... I think it would have probably put people off. That's the current impression that I've had." (RMP)

Furthermore, staff members from RMP described how in some geographical locations and based on feedback from local GPs, advertising and communication messages were written highlighting that a physical examination was not included within the assessment as it was thought this would "put people off coming". One staff member felt that patients were unprepared for the kind of assessment being offer on the RMP Man Van and were unable to remember key information about their medical history, and as such careful advertising was needed to set up appropriate patient expectations.

- b) **Uncertainly with whether the results will be part of their GP health records** and if they needed to arrange for their next test in the future.

"I need to schedule a repeat of my PSA as advised by the Medical Pros here as I'm not convinced the system would automatically prompt me." (GM – patient survey)

"what's always unclear to me in that situation is whether the GP then diarise it so that I'm contacted in a year's time, and invited for another PSA test or whether the onus is on me to diarise it and contact them." (P084, RMP)

- c) **Changing locations of the van.** Locations of the Man Van and This Van Can changing caused difficulties in finding the most convenient place and time for the appointment, even leading to cancellations of appointments.

"The venue kept changing and once an appointment was secured it was cancelled. I was then contacted to ensure I was attending on a day I wasn't going." (GM – patient survey)

"Needed to wait for van to be at convenient location." (RMP – patient survey)

- d) **Admin issues**, which included the struggle of getting in touch with someone regarding the pathway as the voice mailbox was full and emails were not being responded to. These comments were mainly relevant to GM.

"The administration's been really poor... It's very, very difficult indeed to make contact with anybody, both before and afterwards. The only telephone number that they'd given wasn't working. The voicemail was full and the only email that was being given, no response was being given on it." (P027, GM)

"It was just getting to make the call and getting through because sometimes the lines were shut from about half past four... There wasn't an issue with the appointments, but just for me to actually get one at the right time, if you like." (P005, GM)

- e) **Limited waiting space.** When the capacity of the van was full and given the limited space on the van, there was not an appropriate waiting area that patients felt comfortable being at.

"It was slightly disorganised,...we had to go and sit somewhere else. I'd sort of turned up, so it wasn't like a doctor's waiting room kind of thing. I had to go and find somewhere to sit... yeah, because it's a van, there's no kind of waiting room or anything, I had to go and sit in the swimming pool or whatever it was." (P110, RMP)

7.4.2.5 High awareness of the risk factors of prostate cancer before case finding

Across the sites, patients interviewed as part of this evaluation were considerably informed or aware of the risk factors associated with prostate cancer before even being invited to an appointment. Most men from across the sites were not taken by surprise of their risk factor or already aware of their risk due to their family history and/or ethnic background.

<p>Men with a family history</p>	<p><i>"My father died in 1965 at the age of 60 from prostate. It spread to his bones, and it was horrendous to watch him die over an 18-months period, as his body just broke down, collapsed, etc. My brother has had prostate and had a bad do with it. Thank God he's got over that at the moment, well, he's still with us... And my mother had breast cancer as well. So, I knew that I was obviously at risk, to put it mildly. So, I kept a close interest in it and control." (P020, GM)</i></p>
<p>Black men with a family history</p>	<p><i>"guess my dad died from prostate cancer related issues. My mum's had breast cancer. So I realised that I'm probably at quite high risk." (P204, MSE)</i></p>
<p>Black men without a family history</p>	<p><i>"Being of Afro-Caribbean descent, I understand that my prostate cancer risk is higher than most. So, yes, I'm, sort of, I'm conscious of it." (P091, RMP)</i></p>

Men also shared that conversations around them, in the forms of hearing stories from their partners, family and friends and attending charity events (e.g. Errol McKellar Foundation), made them aware about the risk factors of prostate cancer, before being invited to an appointment.

"Because my wife's father has got it, he's had it over five years. I mean, he's still alive, but completely, they can't understand it really... But it's being controlled, and he's alive five or six years later. So, it's common, if you like, all around me, that's three people in my, my wife's father, and then my brother and my father." (P007, GM)

"So, my partner they did a PSA test, and it was really high... he had the MRI and they found something. And what they did they found a little spot on the prostate and then he had the biopsy... And they said it's benign... So, I've also been with someone that possibly might have had cancer and I think that's an important thing." (P103, RMP)

This level of awareness observed about the risk factors also translated to some men sharing that they were aware of most information discussed during PSA counselling, such as the pros and cons of the PSA test and what to expect next. This awareness could be reflective of an audience that is potentially informed with some knowledge of prostate cancer and having had a similar conversation before this case finding pathway with their healthcare professional about the PSA test. This finding also does not take away the benefits of PSA counselling reported by patients in Section 7.1.2 above.

"I've had PSA tests before, so I was aware of the, sort of, pros and cons of the test, and how it worked. But, no, it was good. I mean, clearly, it's a, sort of, screening service, and they don't know what the results will be." (P149, RMP)

However, this awareness should not be generalised to all men as staff members have described patients being "uninformed" and had no prior knowledge of their risk or of PSA tests:

"I think to be honest with you, they're a very uninformed population, they're not like the women, they tend to be much better informed, and they shout a lot louder, which is why I think they get a lot more than the men generally. They're like, 'whatever you say', 'well, if you think, yes'. I think they've not got a sense of the fact that they are at risk, and they tend to be pleased that you're offering them something, albeit it's not perfect." (MSE)

Despite this seemingly widespread awareness of family history and ethnic background being risk factors for prostate cancer, men also shared that more could still be done to promote or inform the public beyond the risk factors to include other conditions related to the prostate, such as prostate enlargement.

"More inclusive, more exposure, more publicity about the risk. I think, again, from my own thought, not quite a lot of men appreciate the impact or the possibility of prostate enlargement and cancer the older they get. And I think that there is also the massive confusion in my circle that I know of that everybody assumes once they say prostate, it means it's cancer not merely an enlargement." (P217, MSE)

7.4.2.6 The need for a long-term approach to prostate cancer detection

Patients from both the survey and interviews across the three sites felt that a long-term plan for prostate cancer detection should be in place. They shared their thoughts that the work should be extended and offered nationally to allow opportunities for other men to benefit from this pathway. Some men were further advocating that a national screening programme should be in place, similar to breast cancer and cervical cancer screening for women.

"other things like cervical cancer and breast cancer, there's a screening programme. Yet, we have a high incidence of prostate cancer and the screening process before was... Can I be honest? It was rubbish and it was a disgrace because a lot of people that I know in the certain vulnerable groups unnecessarily died of it because there was no screening programme... I strongly urge that this pathway programme is extended because there's a lot of loopholes and people are getting missed." (P023, GM)

"I've had no follow-up from the GP, encouraging screening, so there clearly isn't at the moment any national screening programme, and there's no, risk factors are not taken into account or anything. So, the Man Van's filling a gap in that space really." (P149, RMP)

"my gut feeling is that I will get (prostate cancer) at some stage, but I want to catch it early. I am not confident that the system allows that tipping point, and I don't know what the answer to that is. There might be somebody working on that in NHS, I don't know." (P169, MSE)

Having more clarity about what to expect next was also echoed by staff. One clinician described this:

"I think one of the tricky things was what to do with them once it came out negative. So, I made it up on the hoof, so we're doing an annual PSA on them. So, we decided between us, I was quite honest to them, and said, "Actually, it's a research trial, so we don't quite know what the answer is yet, but it will seem sensible given that you were at risk that maybe we do an annual PSA as part of your medication review." So, that's the floating question for you guys is how do we manage that cohort when they've been proven... well, they have a normal PSA...I think they (patients) all asked what next" (MSE).

Another clinician reported it was *"still very vague, all still very debatable, if your PSA is this and depending on your age, do you need it in one year, do you need it in two years?" (MSE)* and that they were using the algorithm designed by the European Association of Urology.

Men who were interviewed and asked the "magic wand" question, or what they hoped could be included or improved, felt strongly about three areas that should be prioritised in this pathway or future services:

- a) **Increase in access.** Some men felt that others should benefit from this pathway, potentially in other local areas, as they might have been missed at the time when the pathway was offered. More availability and timeslots could also help with increasing access.

"have the vans out more on a regular basis like an annual basis. I don't know if it's going to happen every year. But there are other people that perhaps didn't get to the van or there weren't enough appointments so they would have missed theirs that

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might have a better opportunity next time especially having seen the people that have gone before them." (P005, GM)

"Maybe more people being included because I have quite... I mean I'm 54 and I have very many friends my age grade of the same background and I seem to think I am one of the very few, not a lot of them have had the (PSA test)...." (P217, MSE)

"I just wish this Man Van motion can be all the time there because there's so much in the media at the moment, you know, telling men, especially older men, that there is a chance of improving your life and saving your life." (P116, RMP)

As discussed previously, men valued not having to go to their GP to request for a PSA test. Not only was this sentiment prevalent among those who attended either the Man Van or This Van Can mobile vans, but also from patients in MSE, who might have been a part of a PCN-wide approach to inviting men, rather than GP-led. One man felt that he hoped that he would not have to rely on his GP for a PSA test in the future.

"It's nice to know that I could get a PSA test done quite simply rather than having to go through my GP, which is always challenging at the moment, getting something through the GP." (P204, MSE)

Another man who went through the mobile van model shared that the mode of delivery (whether in a van or at their local surgery) is not as important and access should be focused on increased availability and convenience.

"It doesn't really matter whether it's in a van or a building, it's inaccessible or inconvenient all of a sudden, lack of timeslots, and I'm quite flexible on time, it was not difficult for me to find a timeslot, and I'd been working full time, I don't know, maybe it would've been more difficult. So, I think it's about geographical accessibility and having a range of timeslots available for different, kind of, working and living patterns is important." (P072, RMP)

Clinical staff also shared that patients perceived the service to be "flexible", "accessible" and consider it positive that patients were able to be assessed "much closer to home".

"There was a lot of shift workers, taxi driver and they couldn't fit in with their GP. So, to add something so accessible where even though they had a specific time, they could go there because they were in that area rather than going miles out of the way of where they were picking a passenger up. It was just on the route. So, they found it so much easier." (GM)

b) **More awareness.** Alongside increased access, men felt that there should be more awareness of this pathway for those who are at risk of prostate cancer.

"The magic wand that could improve things, is the communication. And the communication to reach out to the vulnerable group and also it should be done by NHS England where it doesn't have to be determined by the quality of your general practitioner... So, I think it's something that's got to be done independently (of the GP) at a high level to reach the vulnerable members of the public." (P023, GM)

"Yes. It also might be worth something worth useful if there could be advertisements, not just on the radio, I know there's expense, but also television. Because it hits you in the face, if you like." (P005, GM)

One man from Essex also felt that the programme should be promoted more, which is contrary to the approach taken by MSE to not have a systematic marketing and communications approach within in the area.

"I think this is all part of the awareness programme, isn't it? More people are aware of it, the more people can contribute towards it. The number of adverts I get for charities running for, for example, for prostate cancer, and to race against cancer, prostate cancer... my inbox keeps being flooded. So that's a good thing." (P169, MSE)

- c) **Better tests.** Men also shared their aspirations of having better tests as part of prostate cancer detection.

"There are things that obviously you can't control is, like the accuracy of the test, if you could do a test and say, no you definitely don't have cancer or you definitely do or you do but you really don't need to worry about it for the next ten years. Improved information would be better but obviously you're limited by what the current state of the science is." (P052, GM)

"Going forward, I just hope medical science can come up with a better version of the PSA test. I'm sure people on a pay level way above ours, are working on that studiously." (P169, MSE)

A response from the patient survey also showed the hope that MRI scans would have been used on the van, as opposed to the PSA test, which can be obtained from the GP.

"I was confused about the offer. I thought that the van would have an MRI scanner in it. I always have the usual tests with my GP." (RMP)

One patient who was diagnosed with early stage cancer shared that he valued having further investigations carried out on top of the PSA test as he was only aware of the challenges of the test through this case finding pathway.

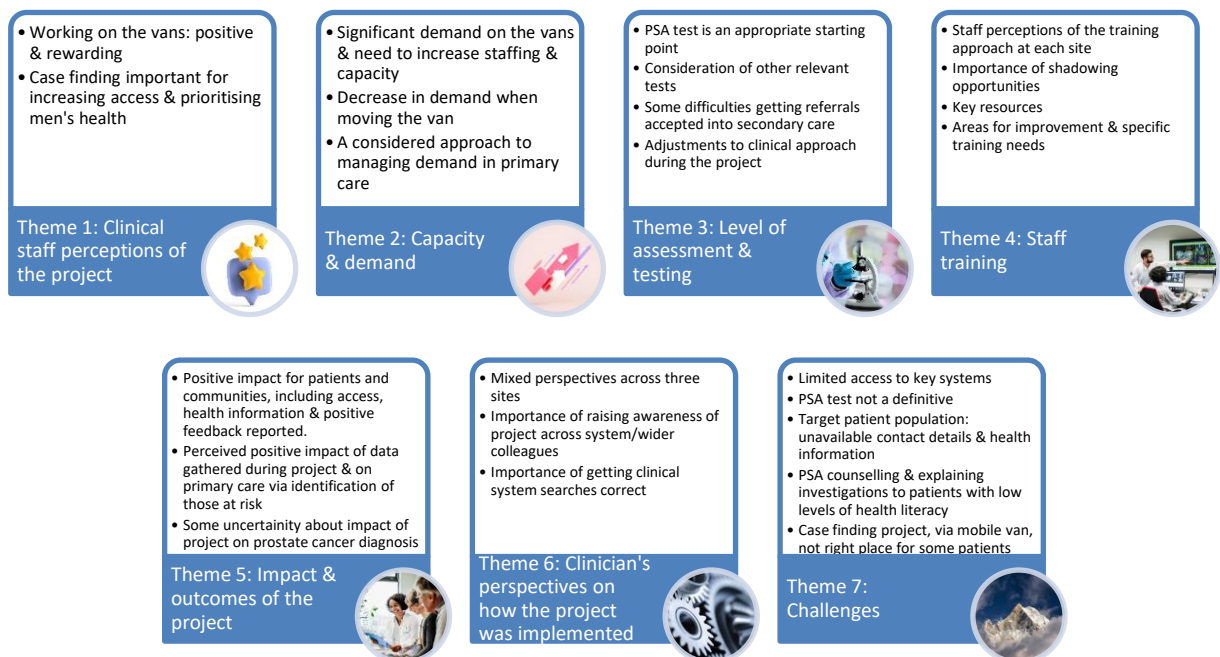
"I was not aware that the PSA test is not really so reliable. But with the latest last few years kind of approach, you have been told and noticed and read and listened to, so obviously you always want something else, apart from the PSA... So obviously, it was very appropriate for me to have this opportunity to having more fuller and more developed investigations." (P116, RMP)

7.4.3 Question 4c: What was the health professional/clinician view of the different models of case finding?

Summary

- Clinicians were positive about the case finding project across all three geographical areas and were pleased to be involved or delivering the project in their local area.
- Staff working on the vans in Manchester and London reported significant demand for appointments, which at times surpassed capacity available and required delivery approaches to be adapted. Demand was more measured or controlled in MSE, and at times in London when the van moved to a new location.
- Staff felt a PSA test (blood test) was an appropriate starting point for case finding for prostate cancer. Additional tests such as DRE & MSU were discussed by clinical teams, especially as it was difficult to get referrals accepted. There were mixed views on whether such tests could be added into the initial appointment and whether such tests were appropriate on a mobile van.
- As part of their training, clinicians benefitted from opportunities to shadow their colleagues, use of educational resources, instructions and proformas developed locally for this project, as well as training sessions which focused on the necessary processes to deliver the project.
- Most staff felt there had been several positive outcomes associated with the project, including outcomes for patients, communities, as well as wider learning for primary care and the NHS. However, some staff felt the impact of the project had been limited in terms of the number of men diagnosed with prostate cancer.
- Clinicians encountered a range of challenges when delivering case finding, which were focused on access to key patient information or IT systems, some difficulties working with the at-risk patient groups and patient eligibility, and some issues arising due to implementation style or approach.

A thematic summary is also presented below, naming the seven main themes and describing key points from the sub-themes within this section.



7.4.3.1 Overall clinical staff perceptions of the project

- **Working on the vans has been positive and rewarding:**

Clinical staff from GM & RMP were positive about their experiences of working on the case finding vans, using words such as "amazing", "fantastic", "quite rewarding" and "I loved every minute of it".

"It's been a really, really interesting project. This is now our fifth location and every location has been really different. They've all brought different challenges. We've met very different patients. We've had very different interactions with local services but actually the feedback that we've had, on the whole, has been overwhelmingly positive and we've met some really nice gentlemen and we've had some really lovely interactions in each location with staff or whoever's asked us to be there. In terms of experience, it's been really positive" (RMP).

Clinicians from both locations reflected that working on the van was "very different" from their normal role, but reported feeling as if they were doing something much needed for the community by delivering this programme of work:

"It's relieving to know that we're doing this for the community because I think sometimes when you're in your job, you don't really feel like you're doing too much. Sometimes you don't really see the outcomes for things, but I feel like here, especially we're in such close proximity with the diagnostic team, being able to see these men and see what goes on from there and getting the feedback from them that way is really nice. You feel like you're doing something for the community" (RMP).

- **Importance of case finding for increasing access & prioritising men's healthcare, especially after the pandemic:**

Clinical staff from all areas commented upon their perceived need for case finding. Firstly, clinicians described this as being an important development and a good start for prioritising men's health. This project was seen as opportunity for men to reach out *"to the right place, then hopefully get the right support and the right care"*. Secondly, this was important initiative after the COVID-19 pandemic *"you can feel almost desperation post-pandemic that they want to be seen by somebody and get some help"*. One secondary care clinician acknowledged that patients were experiencing difficulties accessing primary care services for many different reasons post-pandemic, and this was an important approach inviting patients into a healthcare setting. Another staff member felt that the case finding approach (i.e., reaching out to men/invites) could go some way to counteract negative messages in the media about the lack of a screening programme:

"Obviously it's in the media, they're (men are) quite pleased that somebody is taking notice of them as a population, if that makes sense? Although I do say, we don't do prostate cancer screening for more complicated reasons, that's obviously a very difficult concept to get over to the general public when you're competing against the media saying, 'you're being neglected', does that make sense?" (MSE).

Finally, staff felt that case finding for prostate cancer had the potential to be improved, *"it could be better and bigger"*, and there was still more work to be done to prioritise the health of patients belonging to those at-risk groups.

7.4.3.2 Capacity and demand

- **Significant demand on the vans and the need to increase staffing and appointment capacity:**

Both GM and RMP reported significant demand for appointments on their mobile vans, describing the situation as "crazy" and "nonstop", and that appointments were booked for weeks in advance, with some men being booked into appointment slots for the next location.

"In (one named location) it was very overwhelming. We had hundreds and hundreds of appointments backed up" (RMP).

"We were absolutely inundated with phone calls, text messages, website enquiries...from the outset. I don't think we'd quite expected the demand that came through" (GM).

Both clinical teams reported adapting their clinical delivery and approaches to manage the high demand and patient waiting times including clinical staff doing several weekend shifts, extending operating hours and contacting patients via email to explain the delay and that they would receive further communication soon.

"We didn't expect so many people to be able to be so interested. We were so inundated. I think we should pat ourselves on the back with the fact that we didn't just panic about that, and we did something about it, we actioned it, we realised that we did need additional staff. We reacted quickly and realised that we needed to get some more people involved" (GM).

In GM, clinical staff also increased the number of patients they were seeing in their follow up, results telephone clinic to ensure patients were not waiting too long and the number of slots reflected how many men were being seen on the van for their first appointment:

"there was a time when we had a bit of a wait to be able to see patients in the results clinic because we were seeing so many patients on the van. We were seeing at least 30 patients a week on the van and then sometimes it was up to 40. There was a time midway through the project when it was almost four weeks for a patient to have a (follow-up) appointment. So, one thing that I probably would have done differently was had a higher intensity of follow up slots or a high capacity of follow up slots at an early stage" (GM).

- **Decrease in demand when moving the van:**

When the van moved to other areas or locations, particularly in London, the RMP staff found the uptake was slow and it was difficult to fill the available appointments. This was frustrating as the outreach approach being taken was reaching the target group of men, but this was not translating into van visits/appointments:

"I think that really demonstrates how different each demographic is and the men we saw on the van in (named location), probably out of all the locations this year, were the target that we were trying to see as part of the van but the referrals, we were usually booked weeks in advance and we were filling each day very slowly (RMP)".

- **A considered approach to managing demand in primary care:**

Importantly, during the clinical staff interviews in MSE, it became apparent that some GP practices/PCNs had taken a careful or considered approach to case finding primary care to manage demand and avoid overwhelming their practice. For example, in one PCN/practice in MSE, a GP and practice manager had made changes to the suggested invitation letter (provided by the implementation team) to manage patient demand, as described below:

"We did think about the logistics, having everyone come into have that discussion first, so my Practice Manager rang someone from your pilot scheme, saying we want to send out the letter with the forms and then give them the option to come in if they want to come in...because if you had to have everyone come in then that would have put pressure on the system...extra appointments for something that they didn't sign up to, we're the ones inviting them to do it, so I think that simple process was really good" (MSE).

Another example of the primary care approach to case finding was the number of practice staff involved or the small team assembled to deliver this work. So, in most GP practices there were only two or three staff involved in the day-to-day delivery of case finding in primary care, which tended to be the main clinician (GP, physician associate etc.), with the support of the practice manager and/or specific administrative staff. The main clinicians described themselves as taking "ownership" and being the "main champion for my practice".

"So, it was not like everyone (in the practice), because it's a big practice, otherwise, the patients would be lost in the crowd, you know, so that ownership and knowing who is responsible for what I think that really helped" (MSE, GP).

"I championed it, so all the results that came in I knew exactly what to do. I knew I needed to go in and fill in those questionnaires, the template, make sure that we've recorded the forms and if there was a need for further action, the patients with abnormal results, I had to call them and explain it to them and ask those that needed to come in to come in." (MSE, GP)

"We had myself (physician associate) and one of our HCAs running the clinics, she attended all of the training sessions as well, and it worked out quite well initially, we did the clinics together, so that ran quite smoothly in terms of getting things together. When we started to get the results back in, I tended to do the follow-up appointment, and she was doing the initial consultation and more of the explanation side of things. So, it worked out quite well, we had limited capacity, but we were filling up our slots and getting booked in" (MSE).

Additionally, primary care staff described that they did not block out or run back-to-back full clinics dedicated to case finding, instead they utilised existing phlebotomy clinics and slotted case finding patients into "normal clinic" or "normal primary care clinics". This was noted to also give patients more choice in terms of appointment dates and times. One GP did reflect that it may have been preferable to have had "more of dedicated clinic" to aid with tracking of patient communication and outstanding follow-up conversations regarding results.

To note, there was a perception captured in an interview with a secondary care clinician from MSE that the pathway had been kept quiet and there was a lack of awareness among patients: "So, this pathway, if they knew about it, they'd be probably coming in. I think if it's

more advertised...then I think patients will come and see us, or their GP to refer...But the pathway itself is pretty quiet because I think it's very much primary care based, but if the patient knew about that being available for them, then they will probably come in" (MSE).

7.4.3.3 Level of assessment & testing

During the interviews and focus groups, there were a range of views, experiences and opinions expressed regarding the level of testing available as part of the project, for example whether PSA test alone was sufficient given the model, approach or setting and whether it was possible to include other tests and assessments.

- **A PSA test is an appropriate starting point:**

One clinician from RMP felt that PSA test/blood test was appropriate, *"especially within the timeframe that we have, with the appointment because they're all 20minutes"*. Another clinician from RMP felt a PSA test was a logical first step: *"Maybe that's the first step, getting a man through the clinical things just slowly with the blood tests and eventually go into different matters and how it works"*.

Equally, three of the secondary care clinicians interviewed at RMP and GM reported there was "no problem" with starting with blood tests/a PSA test.

It's two blood tests that the patient needs. There's no other test they need really, so there's been no problem with that (GM).

"Not a problem here at the Royal Marsden because we don't run a strict test system...So, we see every patient that is referred to us whether it be GP or via the Man Van team and we make an assessment, we do a rectal examination and MSU at that point and then make decisions about whether or not someone should be sent through for imaging" (RMP).

The third secondary care clinician highlighted that any additional test may be anxiety inducing for the patient:

"I don't know if additional tests would make any difference to be honest...we don't need to do our own assessment in order to request the investigations. And then the patient would have to wait a little bit longer for that investigation. I think it could be potentially anxiety inducing for no reason. I think having basic PSA and health assessment does help" (RMP).

- **Consideration of other relevant tests:**

In terms of other tests, discussions during the interviews and focus groups centred around using or including Digital Rectal Examination (DRE) and Mid-Stream Urine (MSU) test. A clinician from GM described that they had "quite a lot of discussions" about only offering PSA tests and not a DRE during their project task and finish group meetings, however they reached a "general consensus" on PSA only as the project was "an education piece". A clinician from RMP felt that performing a DRE would be more appropriate in a clinic room than on the mobile van:

"In terms of the DRE...when it's on a van, I think they're often parked in quite public places so even shutting the blinds, you'd have to lock the door and things to make it more comfortable for somebody. So, on a van model, I don't think you'd be able to add that one just for the appropriateness, making a patient feel at ease...but if it was from a clinical room, we had the space to do that, then I suppose that would be helpful to do as well" (RMP).

However, another clinician from RMP but working in secondary care, felt that it was possible to undertake an MSU and DRE on the mobile van, sharing their opinion:

"If you're doing a straight to test model you want a clear MSU and a DRE ideally. I think it would be very easy to add into that setting with an appropriate van with somewhere to lie a patient down. There are three things missing from a very comprehensive assessment...One is the MSU, one is the DRE, and the third one is a flow rate and post-void residual. And outreach clinics that I've been involved in before in GP surgeries we've actually had the

ability to do all three of those things. So, if you're doing it that way, a straight to test model, from an external source is very doable" (RMP).

- **Some difficulties getting referrals accepted into secondary care:**

Clinicians from all three geographical areas acknowledged that they had had problems getting some referrals accepted based on PSA test results alone.

"I was part of the team making sure the referrals got sent to the local different hospitals, there was some come back about the fact that we didn't do certain things" (GM).

"I think the only thing missing for us, and I know it has been a constant complaint from other secondary care centres, is that we're not doing an MSU (Mid-stream urine) for everybody and we weren't doing a DRE as part of the pathway (RMP)".

"I think we had one that I referred to the hospital, but they said no, you have, you know, to do a second test even though his prostate examination was abnormal" (MSE).

- **Adjustments to the clinical approach during the project:**

Again, clinicians across all three sites acknowledged they had been flexible in their clinical approach, undertaking further assessments or tests in some instances. For example, a clinician from MSE reported doing *"routine renal function and full blood count and things like that, I think it's sensible to do that at the time"*, if they were referring a patient via the urgent suspected cancer pathway (formerly two week wait pathway). In GM, the clinical team adjusted the parameters of their blood test after receiving feedback from local hospitals, as described below:

"Another thing that we didn't do, which we had to learn from, is a U&E sample because that was another thing that slowed down the process, was that if they needed to order an MRI scan as part of the two-way process, they had to get the men back to the hospital to take a U&E test. So then what we did for that one is we were able to add on a U&E test from the blood test that we'd already taken...So we couldn't justify taking a kidney sample off every single patient that came to the van because we knew that they wouldn't always need that test. So, what we managed to do was we had 48 hours to look at that person's PSA test and add it on from the blood sample that was already taken (GM)".

Clinicians from RMP also acknowledged they had adjusted clinical thresholds because they were not performing a DRE:

"As part of the van, we somewhat have a slightly lower threshold for PSAs because we're not doing it. So, the national guideline is 3.5 for PSA for men in their 50s, 4.5, etc, but because we're not doing that digital rectal examination, we benchmarked at three, a PSA of three. However, because we're not doing that digital rectal examination, we've had to take other precautions to be safer" (RMP).

7.4.3.4 Staff training

- **Staff perceptions of the training approach at each site:** At RMP, clinical staff described a process of assessing the skills of nursing staff who were going to work on the van and providing training to advance their physical assessment and history taking skills, as well as focused training on urology, if needed. To note, some of the nursing staff at RMP came from the urology diagnostics team, and they described feeling "well supported" and that they were able to pass on their knowledge and reassurance to patients on the van about what to expect next (on referral to secondary care). Education information or "modules" were created and a proforma to assist with asking relevant questions during the initial appointment, until this became "more intuitive over time".

"I didn't come from a urology background either so learning about prostate cancer, education modules, one for diabetes as well, general health advice, the importance of delivering short health education in a couple of minutes kind of thing. So having all of

those resources available to you, the modules, education and then shadowing someone and then putting that into practice as well, I thought was very helpful" (RMP).

In MSE, one clinician reflected on the implementation process and training they received, describing this as "very straightforward and helpful", and attending a series of sessions which focused on the process, including how to identify patients, and run the necessary reports. This clinician also commented upon the documents and presentations they received, which were described as interactive, and it was positive that there were adjustments being made to the process/pathway over time:

"Things were adjusting as we went, because there was a discussion about whether or not we needed to do urine dips, and that sort of thing, I quite like the fact that it was, kind of, developed with us involved too in terms of how easy it would be to do certain things depending on our access to patients and the amount of time and staff we had (MSE)".

In GM, clinical staff attended a series of meetings for the clinicians who were going to be working on the van. In a similar fashion to RMP, clinicians from GM described developing a range of training materials, including videos, access to a shared computer area, and standard "step by step" instructions for reporting and emergencies. GM clinicians described that the training was focused on the necessary systems, processes, and learning on the job (especially in light of technical issues encountered), rather than specific clinical areas.

- **Importance of shadowing opportunities:** The opportunity to watch and shadow other clinicians was felt to be "very useful" and "definitely helps" for new members of the clinical team or when clinical colleagues started working on the van. Clinical staff from RMP commented that the team were open, approachable, and willing to help. One of the more senior clinicians from RMP did acknowledge that upskilling and fostering independence among clinicians working on the van had taken time;

"Our nursing team have got better at doing the job and triaging patients appropriately to secondary care services. So, that's been really good to watch. It has taken probably six to nine months to get those to relatively junior nurses to the point where they could independently do that without advice and daily meetings with either myself or one of my senior ANPs" (RMP).

In GM, they also opted for a shadowing or train the trainer approach, where clinicians new to the van were supported and on shift with a clinician (or clinical lead) with experience of working on the van.

- **Key resources:** Another clinician from MSE commented that it was "really good" to have a variety of patient resources made available as part of the project, including "short versions", "big booklets" and "the website", such that the patient could access their preferred format. The clinician also acknowledged they were continuing to use such resources to "raise awareness" of prostate cancer, as well as the wider learning and interest this project had sparked in both clinician and non-clinicians in their practice:

"I think (looking at at-risk groups) that's broadened all of our views on who we should be targeting actually in the future as well, because there's a tendency to think, you're taught to look at family history, and you don't actually think about the rest of it, and I think that's helped, and I think that's something we can feed back to the wider team as well in terms of teaching...you have that ripple effect, don't you, I suppose, the non-clinicians as well, because they'll talk to their friends who'll talk to their friends (about risk factors)" (MSE).

A further clinician from MSE was uncertain whether they received a training booklet regarding the project but did offer feedback on the clinical system data template:

"I might have got that booklet but I don't remember reading it. I found the Ardens template myself, it was how to do that and then I put it on my home screen and things like that. I felt it wasn't very well structured on what to do, I'm used to doing trials and it didn't feel like a trial [laughter]" (MSE).

- **Areas for improvement & specific training needs:** One clinician felt *"it would have been good to have better, longer (training) sessions with everyone involved"* but this was not possible at the time. Another clinician highlighted an area of difficulty and a training need for some staff, namely taking blood from patients of different ethnicities:

We've got to say men with really dark skin show no veins whatsoever on their arms. So, you have to go from veins down here, back of hands...I think this is the issue we find, the people who are at higher risk seem to be the hardest to take blood from. So, I agree with you, (named clinician). (Another named clinician) said the same thing. She went on the van and she struggled with it a lot she said, so yes, it was quite difficult (GM).

7.4.3.5 Impact & outcomes of the project

What was the impact and outcomes of the case finding project for patients and communities?

- **Identification & diagnosis of prostate cancer:**

Clinicians reported that one of the main positive impacts of the project for patients was the identification and diagnosis of prostate cancer, especially in instances where men were asymptomatic:

"We were able to identify a patient who has now been diagnosed with prostate cancer, who was asymptomatic, and potentially wouldn't have known until they started to develop symptoms, and then potentially could've been found later on, and a worse prognosis. So, that side of things has definitely been beneficial" (MSE).

"I mean, it's crazy to think, if they hadn't had gone to the Van, how would they have known that they had prostate cancer? What symptoms were they experiencing? There were some young people on this trial, so it's definitely probably opened patients' eyes to think, wow, if I hadn't have done this, I wouldn't have known and be treated that I've got prostate cancer, so, yes, I think it's definitely (a good) thing for the NHS that they've done this. I think it gives the NHS a good reputation really, it's definitely helped a lot of patients" (GM).

- **Positive patient feedback & engagement:**

Furthermore, clinical staff from all three sites reported that patients had provided positive feedback about their experience of the case finding project:

"I think we've had another email from a man that I'd seen and then within two months he'd gone elsewhere but he'd had his prostate removed and he'd emailed to let me know that he was recovering well and he was really keen for us to attend his rugby club's annual day and was so keen for us to go" (RMP).

"Lots of satisfaction at the end of the phone (result clinic calls), from what I could hear" (GM).

Equally, clinicians felt that the case finding project had captured patient interest in both prostate cancer and their own health, and this was continuing beyond the duration of the project or the van visiting their local area:

"I'm on a cancer detection trial at the moment and I'm still getting people asking me about this. I got a question the other day by someone who said, "Have you seen this before?" He's shown me the prostate this van can. I said, "I was the (clinical role) for that." He was like, "Do you know how I get on it?" I said, "It's not going anymore. It finished."(GM)

Actually, one of our men then was referred on for further investigations and he came back and said, "I've worked at Chelsea Football Club for ten years and this is the best thing that we've ever done as a club." So that was really nice to hear. (RMP)

- **Opportunity to improve general health & provide education:**

Clinicians described that one of the more subtle impacts of the project was the opportunity to provide general health education and information, which was intended to improve men's health in general:

"Men would come in and they'd tell you that they drink one cup of water a day and then you explain to them why they need to be drinking more and then they leave saying, "I'm going to do this now. I'm going to go home and do that." I think that in our surveys that we've given, they've given that feedback as well that they've really learnt a lot. Just by those little education... our health education at the start is about diet and exercise, alcohol, smoking, that kind of thing. That takes maybe four or five minutes and then the rest is focused on PSA and prostate. Those little education sessions, I think patients take away a lot from it which has been reflected in their comments which has been really good" (RMP).

- **Reaching out to communities & at-risk populations:**

Clinical staff felt that the case finding project had been a positive way to reach out and increase access for communities and at-risk populations, who may not have previously engaged with health services:

"We had a lot of gentlemen that come through that don't tend to go to their GPs or they come with low health literacy and just giving them information and education, you can tell that everyone is very appreciative. You can tell in the feedback just throughout the appointments and after the appointments as well, everyone's really appreciative and everyone says that they wish that this was more accessible to everyone" (RMP).

Clinicians described they had made some adaptations to key documents and their communication approach to be inclusive:

"We've reached out to all the communities that struggled in the past. We've tried to form a slightly different language and simplified forms of communication to be able to communicate our message across." (RMP)

Furthermore, one of the lead clinicians from GM explained that the reach of their case finding project was likely to have created a positive impact:

"I think when you look at some of our website analytics for example on our social media platform, we've made over four million impressions. So, we know at least over four million people have seen this. We had over 10,000 visits to our website over a six-month period. So qualitatively we can say that yes, we have made some impact from that perspective" (GM).

- **What was the impact and outcomes of case finding on the NHS and key areas of the healthcare system?**

One clinician from RMP felt that a broader impact of the case finding would be practical information and data collected during the project, which could be used by the NHS in the future:

"Benefits generally for the NHS, I think, hopefully from process the whole data from Man Van we would be able to exude more practical information, how it might affect rolling out the screening process in the future. Whether that will help in any form of improving screening for prostate cancer in the long-term. And hopefully, we'll see the benefits of it in forms that we probably can't see right now, but small information from the fund researchers can impact further researchers in the future". (RMP)

Whereas, clinicians from GM explained that they thought the case finding project would have had an impact on primary care in terms of identifying men at risk of prostate cancer and an increased number of men subsequently attending at their GP practice:

"I'd add one slight addition to that is potentially primary care clinicians as well. So, whilst we've impacted patients, we've highlighted who risk patients currently are to the primary care clinicians. So, the family history and the description of the family history, the ethnicity

risk factors which may have been briefly known but very much depends on the expertise of each primary care physician as to whether they have an interest and in-depth knowledge of who (is at risk)" (GM).

"Yes, the impact on primary care I would say would be that increased attendance or presentation of people being interested in wanting a PSA test. That probably peaked at the van operation for each PCN we visited, hopefully we can keep that momentum going" (GM).

- **Uncertainty about the impact of the project on the NHS & prostate cancer diagnosis:**

There were some clinical staff who were more tentative/uncertain about the project's impact on the NHS and one or two clinicians who felt the project had had limited impact in terms of prostate cancer diagnosis.

"I think it would be difficult for me to say whether it's had a specific impact on the NHS, it would be interesting to see statistically how many men we do pick up". (MSE).

One secondary care clinician from GM commented on the overall conversion rate, remarking that this "seems low" and stated *"the numbers are so small that it's not made any material difference either way I think unfortunately".*

7.4.3.6 Clinicians' perspectives on how the project was implemented

There were mixed perspectives from clinicians in MSE regarding how the project was implemented. One clinician felt there was limited guidance on how to run a case finding clinic, that the initial invite letter was a bit confusing and "heavily worded towards PSA", and that feedback was not listened to by the implementation team when discussing men bringing urine specimens to their appointments;

"We discussed about the need to bring a urine specimen and I said at the time that I didn't think it was appropriate and I wouldn't do it in normal practice. It doesn't feel like things were listened to, nothing came of it..." (MSE)

"I think the initial letter was a bit confusing...they were a little bit confused as to the purpose of the initial consultation, I think most of them thought they were going to come and have PSA test...For me to say, "No, you're not having a PSA test, you're here for me to counsel you and give you more information" was where it went wrong" (MSE).

Whereas other clinicians from MSE felt the recommended clinical process went *"pretty smoothly"* and they were permitted the *"leeway"* or flexibility to make changes to the invite letter to manage patient expectations and workload.

"I think that the initial search was sitting on system one for us, the list of patients to invite in. We're pretty good at using Accurx and system one for calling people in anyway. And we followed up and chased if they didn't respond as well. On the whole, that went pretty smoothly, we had to do the little tick box exercise as well to say we'd gone through the process. But that's needed because it's a research project, so that's absolutely fine" (MSE).

RMP clinicians reported that they felt they *"had a very seamless pathway here"*, with the use of an IT system to record assessments and *"easy to review"* proformas that could be sent to either our secondary care service or other local hospitals. Staff also reflected that they had been continually improving their assessment and associated tools, including the type of clinical questions they were asking. Another important aspect highlighted by RMP clinicians was the opportunity for regular feedback between the Man Van and secondary care team at RMP:

"I think generally the two teams we've worked really well, we have been able to feed back to each other on a regular basis what's needed, what goes well, what doesn't" (RMP).

Clinicians from GM described that they had endeavoured to make relevant wider clinical staff and stakeholders aware of the project and the location of the van, with one clinician describing this:

"We hoped that we'd worked really hard before the project to talk about it to cancer leads within each hospital, to make sure everyone was aware what the van was, what we were going to do and how the process worked. But again, we were surprised because people were like, "Why didn't anyone tell us this was happening?" (GM).

One of the secondary care clinicians from GM did report they had been successful in making him aware of the project "relatively early on" through the Urology Pathway Board for Greater Manchester Cancer Alliance, and they commented further:

"I think it was quite good, we at (named place) knew quite far in advance when the van would be visiting the locality just to make sure you know, that was discussed at our Cancer Board, so everyone who should have known about it, the information was cascaded down, so that was fine really. You know, both the GPs knew about it and in the hospital, we knew about it as well, so that was fine" (GM).

At times of frustration or challenges, especially when being asked for further clinical information or to perform further tests, the GM clinicians said they would have liked to have driven around and shown everyone the van and the limited nature of the space or facilities:

"In an ideal situation, if we could have gone round and showed everyone. We were no bigger than an ice cream van really, were we? You couldn't have done a urine sample. I think if people would have understood" (GM).

Both clinicians from GM and MSE emphasised the importance of getting the patient record or clinical system searches correct, including the need to test such searches and provide feedback once searches were being used.

"For me, it's important to make sure you've got the right patients going to the van, rather than them turning up and then having to then turn them away from this van can to this van can't. So, it was making sure those searches were right. I think at one point a patient had turned up who wasn't eligible and then query came back to us to say can you have a look at the search. I don't know if it was an old set of searches in one particular practice that shouldn't have been on there. So, there's quite a lot of testing to do" (GM).

"There were some patients that had already had a PSA test within the year and there was a couple, I'm not sure how they were picked up on the searches because surely, they should have been not picked on the searches because they'd had a PSA test within a year, but that was only a couple. Again, there was a couple that had slipped through on the searches, and I did ask my admin lady to enquire as to how that had happened, but I haven't seen her to ask whether or not she got any answers" (MSE).

7.4.3.7 Challenges

Clinical staff raised a range of challenges, issues, or frustrations they encountered when delivering case finding:

- **Issues with access to key systems:** Clinicians from GM experienced difficulties in ordering bloods, which required a certain level of authority on the relevant computer system, and there were noted issues with all staff being able to access the main or central computer system.
- **PSA test not a definitive test:** Some clinicians comment upon the challenges associated with the PSA test itself and the hope that there will be more definitive investigations and tests available for men in the future.
- **Target patient population have unavailable contact details and health information:** Some clinical staff from RMP described how patients from the at-risk groups also belonged to deprived communities and at times there were difficulties in

obtaining relevant contact details and health information. This included access to an email address, individuals knowing their NHS number or providing enough information to identify or select the correct patient record.

- Equally, a clinician from secondary care in the RMP locality, reflected upon the **challenges of counselling and explaining subsequent investigations to patients who have low levels of health literacy**: *"I think the challenges mainly were that it's difficult to support patients who don't have an understanding of their own health and their expectations. I don't even know whether they do have any expectations. Their literacy about their own physical and health conditions are so minimal that it requires us going literally to the basics of nutrition and water intake, and basic investigations to be able to, not necessarily, convince them but make them understand why we're doing what we're doing and why those investigations might be beneficial"* (RMP).
- **Confusion over the types & length of time required for appointments within the case finding pathway**: Within one practice in MSE, a clinician described some challenges with communication between the team delivering case finding and their reception staff, resulting in a couple of occasions where men were booked into shorter appointments than required for PSA counselling and the PSA test happening via a phlebotomy appointment prior to PSA counselling.
- **The case finding project, via the mobile van, was not the right place for some patients**: In GM due to the acknowledged challenges with the Cancer Alliance GP text messages (see section 7.4.4.4), there were patients who were seen on the van but did not match the relevant criteria, and clinical staff reflected that the van was not the right location for these men to be counselled or given the appropriate information as staff did not have access to their overall health records.

"Unfortunately, it wasn't the right place for them to have a PSA test. So, they needed more of a discussion with a GP, someone that could feel the prostate and offer them a fuller examination, or they were too young. We did have a spell where we had very old people. We had people in their 80s, which they still need to be counselled but on our van wasn't the right place because we couldn't access (main or same computer system)" (GM).

7.4.4 Question 4d: What was the non-clinical staff view of their model of case finding and their experience of managing their delivery model?

Summary

- When implementing a mobile van approach to case finding, staff described significant operational issues to overcome during both the set up and day to day running of the project. The teams running the mobile vans had to try a range of different invitation strategies and shared in their experience, namely public outreach yielded the correct men who were at-risk of prostate cancer, but this was a labour-intensive strategy, whereas invitations via text message were more measurable approach but this was reliant upon primary care record searches being correct.
- When implementing a primary care approach to case finding, implementation staff emphasised the importance of engaging and co-producing at each stage of the project with patients and GPs. Staff from MSE shared that their approach was likely to have resulted in key processes and templates which could be 'lifted and shifted' if case finding in primary care was being rolled out elsewhere or for other types of cancer.
- All implementation teams had attempted local monitoring of the project, aiming for this process to be automated through the use of IT systems and tools. However, all teams encountered challenges in local monitoring, especially tracking or having access to all data sources to follow patients through the pathway, resulting the need for manual approaches.
- Critical success factors for implementation were assembling the correct clinical and operational teams and communication at multiple levels with all types of stakeholders.
- Implementation staff highlighted challenges regarding workforce, communication, tracking patients through the pathway, and clinicians adhering to implementation processes.

- Recommendations for the future of case finding were; a walk-in facility and/or online booking mechanism, appropriate infrastructure and support, IT and data solutions, seeking answers to further evaluation questions, tightening up on key parameters for 'at-risk' groups or invites, and asking where does case finding for prostate cancer fit into wider men's health programmes or addressing health inequalities.

From the implementation focus groups, the site teams were positive and proud of what they had achieved during this programme of work. In particular, they were pleased with the reach and levels of patient engagement, as well as the commitment and engagement of GP practices, who in MSE were critical delivery partners.

"We know that we reached over four million people on the internet and social media. There's been a huge legacy effect of this project, so we are really proud of what we achieved" (GM).

"we've had a fantastic engagement, as I say, with all the practices, all the PCNs, etc...I believe that all the teams that have, even if they've struggled, have enjoyed it, and they're actually pleased that their patients who had an elevated PSA have been able to be referred (to secondary care)" (MSE).

Positive impact and outcomes:

- Site teams felt they had **achieved what they set out to achieve and importantly provided a service which was not already available and within clearly defined parameters.**

I think what we've achieved has been absolutely fantastic. I think we have set out to look at engaging the community to raise awareness for prostate cancer. That was our primary aim. Our secondary aim was to look at people who are at risk of prostate cancer and offer them counselling about prostate cancer and potentially a PSA test (GM).

"we've heard consistently from people that nothing like this exists, it's very hard to get GP appointments, GPs themselves say they don't have capacity to do this kind of work. (RMP)"

"Unfortunately, we did have to fall out because they saw it as a screening programme, they thought we were just going to send out the tests, get them screened without counselling or any follow-up, etc. In fact, quite the opposite has happened, there has been a lot of counselling, there has been lots of follow-ups, second appointments, there have been occasions when a second PSA test have been completed. Some of those patients also who had a satisfactory test, they've gone through to a routine appointment just to get checked up at the hospital" (MSE).

- Staff from GM in particular emphasised the **legacy of this project in the form of education and awareness of prostate cancer, and empowerment:**

"We know there's been a huge legacy effect for patients, not only patients who have been to see the van but also patients who may have tried to get to the van or have heard about the van through someone else, that's actually empowered them to go and speak to their primary care physicians. We've had a number of different educational events with primary care as well to educate our primary care colleagues about risk of prostate cancer and therefore empowered patients to go and see their doctors about this. I think we've absolutely achieved our aim which is educating people about prostate cancer, raising awareness about prostate cancer (GM)".

- Across the three sites, staff felt that case finding had **made a difference to patients.**

"One of the gentlemen, I think he was in his 70s, 80s, he said, "I haven't seen any NHS money being spent on ethnicity where it actually made a difference, and this project is wonderful. I told my family, I told my clubs, everyone, everyone's going to actually do this." It's connecting an individual, one guy from the street to there, and he, kind of, touched me from that, the way he said it, and he just said, "Please don't let it stop." (RMP).

"I can't imagine that people would not be thankful for something like this. I would also hazard a guess and say that the prostate cancers that we picked up as a result of this, patients are going to be very thankful for that as well. Then I presume that there are going to be patients that have gone through the system and been told that they don't have cancer, and again, I think that can only be taken in a reassuring light as well...If they went forward and had the PSA testing, and the PSA came back as negative, and they were safety netted, I can't imagine that they wouldn't be grateful that actually they were given more information around what to look out for" (MSE).

- Both teams from RMP and GM described that their **work attracted national and international interest, due to the novel approach being taken, and both sites had experienced good publicity opportunities:**

"We've received national media attention for this project (GM)".

"I think nationally, in this country, we had a couple of really good publicity moments, if this was being pushed into a formal service, we could've easily have leapt onto any one of those really, just promote it so, so much, like the Prince William visit, for example, we could've just really made an even bigger impact, but of course, we were quite conscious and cautious not to, just because we don't want that flood, because it is just the pilot" (RMP).

- **Mixed perspectives on the impact of case finding on secondary care:**

There were mixed perspectives on whether case finding had created an increase in secondary care referrals as an outcome or impact. With implementation staff from MSE noting there were no documented issues with demand for or capacity within secondary care as result of the project in their local area:

"what they did say is you are going to flood the trust with referrals, and we explained how the programme would work, how the counselling was happening, how we had put it into four cohorts by quarter so that we didn't cause an influx, and the trust were so supportive with that, and it's proven to be quite successful, they haven't had an influx, and bearing in mind that's a tier one situation as well...and it has hopefully shown public health teams that you can do this kind of work, and it doesn't cause an issue further down the chain" (MSE).

However, some clinicians from GM felt there may have been an impact on local hospitals because of their project:

"I can appreciate that doing blood tests on 600 men will have an impact on our local hospitals. We referred 60 men into local hospitals. That does have an impact in terms of those hospitals' ability to see other patients who hadn't attended the van. So, I think it does impact the capacity of our local hospitals. But that being said, there was a proportion of those men who did end up having prostate cancer who did need to be seen regardless".

"I suppose, it's not really a negative and it will have increased the number of referrals so that's not a negative, is it, but I suppose if you're saying about the impact on the NHS or the local trust, it wasn't massive. We're still waiting for the referrals to all come through. I suppose it may slightly increase the workload because we didn't fulfil all of the criteria what would happen at a GPs. But then again, the positive of that is that we found people that have got prostate cancer. So, it's kind of like swings and roundabouts".

7.4.4.1 Models of delivery

- **Operational issues & learning implementing a mobile van:**

From the teams at RMP & GM, there were operational issues and learning raised with regards to implementing model one (i.e., a mobile van). GM implementation staff were more general or broad in their feedback about using a mobile van:

"Looking at the mobile unit aspect of things, there's been quite a lot of learning as we've moved on. This was a pilot project. I think if we were to do the project again, we would be in

a much better position to move forward with it from an operational perspective because we've got a good understanding of some of the pitfalls we found operationally" (GM).

Whereas RMP staff were clear and specific in their operational learning, describing that there were practical issues to overcome such as establishing a power supply and Wi-Fi connection in each location, and temperature management of the van dependent upon the weather. Staff from RMP did comment on the size of their van, namely the van being too large or the size of the van being difficult to accommodate in locations in London.

Alternatively, clinical staff from GM described the capacity of their van as being limited, using a gazebo next to their van at times and not having the space for administrator on the van. Clinical staff from GM went on to say they would like a bigger van in future with additional rooms, such as a waiting room, administration area, dedicated counselling area and a toilet, which would help with additional tests including a urine dip stick.

Staff from RMP highlighted there were also challenges with routine service provision, for example IT support, courier services, estates or handyman services and ordering of equipment or consumables, all of which had established processes within the host organisations but where support was offered on site or within specific geographical boundaries, rather than in a mobile van. RMP staff reported there was a need for a high level of active problem solving on a daily basis to overcome these issues.

- **Location of the mobile van:**

On some occasions, staff managing the RMP mobile van stayed in their current location, as they *"didn't have somewhere else to be going forward, because we didn't have the right person to talk to, we didn't know where we were going to park"*. Equally, staff described that moving the van to a new location came with further challenges, such as a new set of expectations from local stakeholders and the need to adapt or develop a different approach to van opening hours, clinics on weekends and patient invites, as described below:

"Every location we were in had a different idea about what we were there to do, so we had what we thought we were there to do, and what you guys had commissioned us to do, but then also, (named location) said, "Absolutely not the way we're going to contact patients. This is the way we're going to do it." "We're going to go out and get patients out of their living rooms and bring them to you". We were constantly panicking that we only had two days of patients booked at a time, but they kept showing up with the people that they wanted us to see, so they had a really different view of why we were there, and our ability to be flexible and amiable to that, and to be able to work around their expectations to make sure that the experience worked for the borough in a positive way." (RMP).

There were also difficulties in judging when to move location and meeting patient demand in the current location before the van was due to leave the area. The RMP team reported that they adapted their approach on two levels, firstly *"we adapted our service to the niche of the boroughs"*, and secondly, they adapted their approach to appointment delivery, delivering some PSA counselling via telephone for a short time to meet demand *"when we had an influx of patients, too many patients, and our stay was ending in that location"*.

It is important to note that the team at RMP did move to using GP practice clinic rooms (i.e., similar to MSE) in their last geographical location and near the end of the overall project. The use of rooms in GP surgeries was perceived as *"a piece of cake, everything works fine"* when compared to the operational challenges and problem solving required when using and moving the van:

"It's proper hardcore operations moving a van from place to place. Once we got into a GP surgery, that was cake, literally, could not have been easier, but trying to move a mobile unit around the city, finding places to be, making sure that it's hot or cold or plugged in (RMP)".

Clinical staff from RMP had also delivered a "double clinic" in two clinic rooms at the same venue, seeing over 40 patients in a single day. However, RMP staff did reflect that patients were less enthusiastic and there was a certain novelty to being seen on the van.

"I'm not sure, the men who came to the clinic, they were exciting to be on the van for some reason, rather than the clinic room. So, that is one of, a way to get the patients, be like, "Come do a health check. It's in a van rather than a room."

- **Identification of at-risk men & methods of invitation to the mobile van:**

With regards to the identification of at-risk men and methods of invitation, staff from GM acknowledged that early on in the project, some men were seen who did not fit the chosen criteria. Once these patients were on the van, it was described as an intense or difficult situation to try and explain that the individual did not meet the criteria for the project:

"we had the criteria but if someone made it on to the van, I don't think it's ethically appropriate to turn someone away at that stage. They've come all the way there and they're asking for help essentially. I did some PSA tests on men who didn't meet the criteria. Essentially, this was a community engagement project. You can argue that we're still raising awareness. I don't think there's any ethical issue there for me with doing a blood test on those patients" (GM).

The implementation staff felt in future it would be necessary to have a more robust booking process, facilitated by increased resource in the booking team to capture mandatory information and ensure the correct patients were offered appointments on the van.

Staff from RMP were able to comment upon the different approaches they had tried to patient identification and invites to the van, describing that the use of face-to-face outreach (local communities, events, handing out flyers etc..) was "really labour intensive" and required "physical manpower" however they were able to gain access to target patient population in terms of deprivation and ethnicity. It was also very difficult to evidence "how well you've recruited" using that approach, whereas with text messaging via GP practices, there was a clear process and pathway.

- **Key elements of the primary care model:**

Colleagues from MSE felt they had combined several key elements which had made their approach successful. Firstly, at the outset, staff from MSE had engaged with GP colleagues prior to submitting the bid for NHS England funding, as if they won the bid, GP practices and PCN would be integral to the delivery of case finding:

"finding out first of all if they were interested before you put in the bid, because if you haven't got that interest and enthusiasm and drive at the beginning, then you are not going to be able to deliver the programme, and one of the key features is that fantastic enthusiasm at the beginning of the programme which then gave us that ammunition, if you like, to put forward that bid and know that we were actually going to be engaged with all of the sites. So, it was really pivotal in the whole programme" (MSE).

Patients had also been involved at the early stages of the project, via co-production, working on the letters and information given out to at risk groups, as well as co-designing the training or educational package.

"The patients had actually put together some of the consent letters and were involved in the early stages to make sure that it worked, and if it worked well for a patient when they were receiving the letter...and they reflected on their own experience if they've been on the prostate pathway of what could work better so that we could learn from the patients and their voice was heard right at the beginning, and which was really, really helpful" (MSE).

Secondly, MSE staff aimed to be non-prescriptive in the way they implemented the project, striving to give the GP practices/PCNS flexibility and freedom, and empower them to run the project in their own way:

"I would say we were non-prescriptive, so we allowed them to run their own programme knowing that we were here to support them, and I believe through that, that's actually given them that empowerment, and they've really taken that on board, so some have put all their extra clinics in, they've worked out when the men can go, etc. so that they've covered everything that they can possibly can, but we empowered them, we didn't say, "You have to do it at this particular time, on this particular day" (MSE).

So, it's really about letting them have the freedom to decide for their cohort of men what would be the best time and place for them to do their clinics, their counselling, and also, we gave them the opportunity to do a consultation over the phone, if that was something that a patient would rather have, because now we've entered the new world of virtual, sometimes patients find that so much easier, and that's also supportive of the programme (MSE)

- **Ability to transfer the primary care model to other case finding initiatives or locations:**

Finally, staff at MSE reported that elements of their overall approach could quite easily be transferred or 'lifted and shifted' to other case finding initiatives or locations. For example, the MSE team created a training package, implementation resources (e.g., information booklet for practices), and a centrally produced set of instructions and template for data recording and capture on the clinical system. All of these components could be shared or replicated by other NHS professionals.

Yes, automated, so that you capture it all, so if you have that good template at the beginning, and you've managed to get all of your codes what are going to be connected to that, and the team have the training and the education within those early days with (clinical lead), a visit, and (clinical lead) who provided that (booklet), you get that right at the beginning, then, yes, you can literally shift and lift the whole lot and put that into any area within the country. But automation is really key, and the template setting, because that is where you save and make cost effectiveness work for you (MSE).

Specifically, business intelligence colleagues who had supported the MSE project described that it had been *"quite straightforward"* to utilise the existing clinical system to build a template and relevant codes need to capture the data and monitor the project. While building the clinical report was harder to do, it was key to accessing the correct cohort of patients. Once these steps were complete and with the support of the "training team", a training document could be shared with all GP practices/PCNs involved. Importantly, staff reported this work could be exported for the same clinical system for prostate cancer case finding in other locations or other at-risk groups.

"those changes are very, very exportable, so it would be very easy to put a couple of files together that had the whole package from a system one perspective, and you could drop that into any system one unit in any area, really easy to transport... Yes, and you could just as easily follow the same process for almost any patient group, if you had another cohort, I mean, it all does depend on that coding being within the record within the first place, of course, but as long as you've got that cohort you can identify, to apply the same process to it is, again, it's simple and easy enough to do across large areas (MSE)".

7.4.4.2 Local monitoring and evaluation

In MSE, the implementation team had aimed for local monitoring of the programme to be automatic to ease the burden on GP practice/PCN staff and work in a cost-effective manner, pulling their main data from templates and reports with their local clinical system (SystemOne) on a monthly basis. During the project, there were some adjustment where missing data was identified, and codes were added by the analysts supporting the project. This data was also reportedly linked to the Somerset cancer register and available secondary care data, but there were time delays due to the steps in the clinical pathway. Colleagues from MSE expressed their frustration regarding the national evaluation patient level data collection exercise, which they felt was a significant task.

In GM, the implementation team felt they were "reasonably robust" with their local monitoring and this improved over the duration of the project. GM's approach focused on capturing data at two time points in the clinical pathway, firstly, patients and clinicians using a laptop or iPad to record key information at their first appointment on the van, which populated a spreadsheet. Secondly, patients and clinicians recorded similar information when the patients received their PSA test results, which again populated a spreadsheet. On a weekly basis, the lead nurse linked these two spreadsheets to provide an overall picture of how many patients had attended the van and to track patient results, reporting any missing information to operational team. GM staff also explained that once a patient had attended the van, information was sent to both the patient and their GP, so there was an outward flow of information. Details of any patients with a positive diagnosis or an elevated PSA were then passed over cancer trackers, who followed up with local hospitals to see whether or not the patients had further investigations or whether they had cancer or not. However, understanding and following the data of a patient's journey into secondary was noted as challenge (See section 7.4.4.4).

At RMP, staff noted there had been a change in the IT operating system in the middle of this project, and this had been a *"massive change for the organisation"*. While the new system had the capacity to be able to *"monitor patients who are not on standard pathways like the man van"*, there continued to be manual process for keeping track of patients seen during this project. Staff also raised questions regarding whether any issues (e.g., high blood pressure) identified during the wider health check approach were acted upon or resolved in primary care and how to access this information or access such data.

7.4.4.3 Implementation learning

- **Operational & clinical teams needed to deliver case finding:**

Within the GM focus group, staff focused on their implementation learning surrounding the operational and clinical team needed to deliver case finding. Firstly, staff felt a core operational team of a project manager and two administrative staff was critical to success. These staff would be assigned to the project, with one administrator focusing on managing communications and bookings, and the other focusing on follow-up communication such as patient and GP letters. Clinical staff from MSE also suggested a similar process within their GP practices, with their admin team focusing on appointment booking and the GP or practice manager focusing on clinical monitoring, such as monitoring results or the pathology inbox. Secondly, an assigned or dedicated person to support local monitoring, such as a cancer tracker. Clinical staff from GM highlighted that they were fortunate to call upon a cancer tracker, who *"worked extra for us"* to understand what happened next to patients involved in the project. Thirdly, the operational and clinical staff working on the project should have this as their main focus, either being permanently employed or on secondment, such that clinics could be "rostered or covered properly":

"Number one, consider your operational resilience before starting the project. By that I mean you need a project manager, you need administrators underneath the project manager, and they all need to be permanent staff. You also need to consider having permanent clinical staff if possible" (GM).

"Yes, moving forward, I think really, in an ideal situation, it would just be brilliant if we had a bit more like the van in London where it was more a seconded team of people. So, it was actually their job...I think that's the only way really where you would be able to deal with all of the demands, deal with the problems because we were doing it and juggling our own jobs. So as soon as a problem came up, we dealt with it well, but you were taking someone's kidney out and I was doing a biopsy. So, I think if we could do something where there was permanent staff, that would be the ideal, wouldn't it, that was their only focus" (GM).

Finally, clinicians from GM highlighted the importance of including a clinician(s) in the team who were skilled at taking blood, especially as the PSA test is reliant upon being able to take blood from men at that time.

Furthermore, staff from RMP added that the personal qualities of implementation staff were integral to the success of the project, namely perseverance and working tirelessly to solve problems:

We were just really lucky that the team that was working on that were good at talking to people and gathering information everywhere they went, and...then we have (named service manager) who was tireless in, "I'll just pop into the barber shop and try to talk to the man and see if he knows the guy across the street who can tell me who the mayor is. I'll call him."...just endless energy for that kind of work, to try to get into the right spaces, and I think that's why we ended up in some really great, sitting in front of Ealing town hall...that probably wouldn't have happened without the right constellation of people around the programme trying to make that happen (RMP).

- **Multi-level communication is key:**

Across all three implementation focus groups there was discussion of the different types of communications need to successfully deliver case finding.

1. **Outward communication with patients:** Colleagues from GM emphasised the importance of varied, multi-channel yet strategic communication with patients:

The next thing would be make sure you manage your comms and your communication appropriately. So have a strategy in terms of how you're going to disseminate your information. If that's going to be with comms assets, social media, TV, and radio, or...if it's going to be with GP practices, make sure all the information is correct and accurate (GM).

"We had a few different channels in terms of how we would reach patients to let them know about the van. One of the channels was our social media and our comms team. We had a number of different assets...billboards, bus stop signs, signs in pharmacies, etc." (GM).

2. **Within pathway communication about patients to clinicians and organisations:** Staff at GM stressed the importance of having a robust process for tracking patients and communicating with both GPs and secondary care, again highlighting the role of the cancer trackers. RMP staff reported there was value in adapting the style of this communication to suit the receiving clinicians: *"I mean, we take it for granted, coming from hospital-based medicine, that when we see patients, even the throughput that we have on the van, that really throughput where there is a lot of standardisation, but we still individualise our advice quite a lot, which maybe is something that primary care wouldn't recognise because they're dealing with things not in that level of detail. So, yes, just, kind of, sorting out those (RMP)".*
3. **Operational communications:** Model one or the mobile van approach required implementation staff to be focus on both the current location as well as planning the next location for the van. This included the process of identifying key stakeholders and contacts to speak to enable delivery in each specific location: *"the minute you've parked the van somewhere, you're already obviously working on the next spot and the one after, but we didn't always have the right people to talk to...if something like this happened in the future, some learning would be, even just a list of contacts that would come from, maybe NHS England said, "If you wanted to be in (one location) or you wanted to be in wherever, (another location), these are the people you might speak to, these are the contacts that we communicate with, these are the GPs, these are the largest GPs in the area, this is how you speak with those individuals." (RMP)*
4. **Communication with wider stakeholders & interested parties:** Staff from MSE highlighted the importance of ensuring key stakeholders were involved from the start of the project, including primary care, secondary care, and public health, and stakeholders were able to share any concerns that they may or may not have about

the process. RMP staff described that it was important to continue to tell GPs and wider stakeholders about the initiative for information and awareness (including limits/boundaries of the project), especially within the Cancer Alliance area: *"we had meetings in urology, which covers the Alliance, so that was a great starting point, which I just kept presenting at those meetings. They happen every three months. So, I just kept presenting over and over until everyone just was like, "Yes, we know you're coming, yes, we know this is going to happen" (RMP).*

Overall, implementation staff reported that *"communication is a key part"* of the project, and it was essential to be clear within that communication regarding the case finding approach:

"Just trying to just explain what it is that we're doing, there's a lot of miscommunication or a lot of misunderstandings that can happen because at first glance, it might seem that we're just, sort of, doing screening, it's a screening service, which it's not. And once that's all clarified, we've had a lot of support. And that's crucial just to, kind of, to get that at the beginning rather than be somewhere and then have lots of patients and then need support from the local teams afterwards" (RMP).

7.4.4.4. Challenges

- **Workforces issues:** In MSE, there were noted challenges with the general practice workforce meaning that some practices/PCN were unable to participate or had to delay their involvement in the project due to capacity. For RMP, there were noted issues with getting staff across London to the van's location, when this was the staff members usual commute or transport systems were on strike. Staff from GM commented upon how cancer nurse specialists in urology and urologists are *"quiet hard to come by"* and it was important for delivering this project that staff had some knowledge of urology.
- **Issues in general practice:** In MSE, staff described challenges with GP practices merging and one practice closing during the case finding programme.
- **Communication:** At RMP, staff reported making changes to their communications, for example the wording of GP letters and the specific nature of their advice, given the constraints on primary care, following feedback and discussions with local GPs. Staff at RMP also noted that there were difficulties in identifying the correct stakeholders to speak to support the delivery of the Man Van in each locality, as well as across the overall geographical patch/project.

In GM, staff described key issues with the communication cascade through the Cancer Alliance, primary care networks and GP practices, whereby texts were sent out to patients who didn't belong to the target groups or that men could be seen at the van without an appointment. This caused *"a knock-on effect every time it happened"*, with a *"stream of men turning up"* to the van without an appointment in the current location. Staff reported this would continue to happen over the coming days/weeks in the same location, with some men being turned away and some booked into future slots, thus creating capacity issue. This also created an additional administrative burden on clinical and operational staff when answering calls and managing those who turned up to the van, explaining the relevant criteria and there had been a miscommunication. During those conversations, staff noted that many men were quite persistent in wanting an appointment, often arguing, or expecting to be seen immediately.

"ultimately, we know that about 60% of the men who attended the van heard about it through their GP so that was by far the best way of reaching these men. But it did come with a slight caveat that the men may have not been appropriate to attend the van" (GM).

- **Geography:** Although RMP worked within their Cancer Alliance, this is a large geographical area to cover, understand and work within.

- **Contacting patients:** Both implementation and clinical staff from RMP and GM described that delivering appointments and results via telephone can be challenging when patients do not answer their phone, or the correct patient phone number was not on record. There were also one or two cases where communication difficulties arose in primary care in MSE and on the van in RMP, where patients had not contact the service regarding results, further testing or secondary care services had been unable to contact the patient after a referral had been made. In these instances, staff stressed the importance of *"a degree of ownership from patients as well"*.
- **Tracking patients from primary care into secondary care:** This issue was raised by both implementation and clinical staff, with staff from MSE and GM commenting on their difficulties in tracking, being able to follow information or get updates about the patients who were seen on the van or in case finding clinics. Clinical staff from GM expressed their frustration that *"we don't have a centralised system"* and that they were *"surprised"* how difficult getting information was considering the proximity of the hospitals involved. Another clinician from secondary care in GM remarked that getting responses from other hospital trusts took a long time, as there was limited awareness of the project:

"I think what became more challenging was when they get transferred to different hospitals when they've got a cancer diagnosis and trying to find out that information became...considering that these patients are in hospitals very close, it's quite hard to find out that information...Even for a cancer tracker to speak to another cancer tracker in the hospital to get that information could take quite a while. So, there was a couple of times where a patient, I was getting the information about and we didn't know they'd actually been given a cancer diagnosis say three or four weeks before because the letters weren't typed in that hospital, do you know the little factors like that" (GM).

"Well, my only feedback would be I wish that the other trusts were aware of the Van project, and I wish that the other trusts had a dedicated coordinator to give me info, or I can chase for info, because it has been a struggle trying to get some information from patients" (GM).

- **Concerns from wider stakeholders about case finding:** Staff from MSE recommended taking the time interact with these stakeholders and explain the nature of the approach. It was noted that the local Cancer Alliance and NHS England were *"very supportive"* at that time.
- **Clinicians not completing or using provided templates to capture all necessary data,** identifying and correcting processes across 40+ GP practices (MSE).

7.4.4.5 The future delivery of case finding

Clinical and implementation staff members from the sites went onto describe several aspects they would recommend as part of future delivery of case finding:

- **To offer a walk-in facility:** In terms of access, staff from GM in particular highlighted their desire to be able to offer a walk-in appointment for those men that have "plucked up the courage to the come to the van". Staff from GM did report that they had tried a "drop-in" approach, but it became a patient safety issue. Staff reported there was a need for an IT/clinical records system to support this walk-in approach, which for example could look up NHS number. Overall comment provided below from secondary care clinician in GM:

"I wasn't aware until after actually that people needed to, you know, there wasn't a walk-in facility to it, which I would have thought have been like the fundamental barrier to break down to get more people to present. I think that's probably the most important thing...I think that because the guy who won't make an appointment with a GP is also the guy who won't make an appointment on the van, I suspect". (GM)

- An online booking system for patients, which required mandatory information prior to booking the next available date and time slot. Staff in GM felt this would enable same

day bookings, as well as appropriate bookings and the ability to communicate effectively with patients and GP (e.g., correct/accurate contact details pre-recorded).

- **Changes to the van & infrastructure to support mobile approach:** Staff commented on size of the mobile units, as well as the ability to perform relevant diagnostic tests (PSA test onboard) or scans on the vans, if possible. Staff from RMP suggested that securing more vans would lead to more exposure and awareness would be generated about prostate cancer. However, additional staff would be needed either located in or able to travel to van locations, otherwise reliable transport would be required for staff to provide mobile delivery.
- Support from NHS England to identify and connect key stakeholders to enable such new initiatives, including making introductions or providing a list of key contacts.
- This programme of work has generated a great deal of interest, with stakeholders who are willing to host the vans on their premises including private companies, football clubs and community venues.

"Everywhere we've been to, they have plans for us to come back. They said stay for longer, come back more, come back after a few months. Ikea is willing to have us back. Chelsea FC, they said in the off season always come back. Ealing have got a couple of plans in different areas, in deprived population. Brent same thing. Everywhere we go, they approached us saying come back, it was a very good initiative, very good project, we had good benefits from it". (RMP).

- **One computer system:** Staff from GM suggested, while unrealistic, that having one clinical computer system, which all staff could access, would aid, or enhance initiatives like case finding. This would enable records, information and documents to be visible to all involved in the pathway/process, including GPs and cancer trackers.
- Similarly, **linked datasets through which a patient's journey could be tracked across primary and secondary care:** *"In the future, hopefully, you would have a link dataset where you could track a patient's journey from primary care to secondary care, it's just we're not there yet. I think that is generally the direction of travel and then linking that to all other sorts of datasets like social care etc., then you could then do an analysis on the people who didn't come forward and see what sort of background they were from and things like that, but that's a future thing" (MSE).*
- Further evaluation, including use of linked data, to answer key remaining questions:
 - **Understanding why some of the men invited did not attend for an appointment:** *"I guess, the real question will be identifying from those patients that were sent letters that didn't come forward, why? Why didn't they? And perhaps there's a body of work to do there around that" (MSE).*
 - **Did patients who weren't able to be seen on the van, go and see their GP:** *"It would be interesting to know that the people that did turn up that we had to turn away, whether they pursued it and went back to the GP" (GM).*
- As per the challenges associated with the project, **a sharpening or tightening up on key parameters associated with case finding.** For example, one GP from MSE stressed the importance of clear messaging and patient expectation setting about who needs to be seen and when. Another example from a secondary care clinician in GM, was the use of more specific intelligence on cancer diagnosis rates at a neighbourhood level to inform van locations for future projects. Other clinicians from GM thought they "may have skirted the line as to what a strong family history may have been" and in future, if seeking to upscale reviewing the parameters for this at-risk group would be helpful. A clinician from MSE also thought if there were more projects in the future "more GPs need to be informed", via "a formal gathering". Another clinician emphasised the importance of urology within medical education to support projects such as this but also to better prostate cancer testing and diagnosis.

- Case finding for prostate cancer part of a broader health inequalities programme:** Clinicians from GM reflected on their knowledge of the RMP approach (i.e., a broader initiative around men's health) and whether they could have *"had a lot more robust data to look at", including information on hypercholesterolemia, diabetes, hypertension, blood pressures, blood sugars...to have a slightly more holistic approach*". Similarly, a clinician from RMP commented on the need for physical and psychological support for at-risk men and that was likely to be part of a wider or longstanding programme tackling health inequalities:

"obviously, the risk of prostate cancer in Black Caribbean men is two to three times higher than within Caucasian communities. But I think at the same time the fear in between those patient, groups of patients, is still quite high. So, it's a long way to go to be able to address all of those problems. How do we do that? I don't really know. There's got to be probably a little bit bigger project around that reaching to all of those communities and working around health priorities and their choices and how it affects their personal life. And what are the consequences and how men are prepared for taking those consequences. So, it's not just physical work but psychological support for men in general" (RMP).

7.4.5 Benefits and challenges of case finding

	Patient experience	Clinician experience	Implementation experience
Benefits	<ul style="list-style-type: none"> Proactiveness through the invitation and not having to "drive" or ask for a PSA test from their GPs. More access to services beyond their GPs. Mobile vans made the offer specific, accessible and visible for men, was effective in raising the public's awareness of prostate cancer. Easy and convenient booking process. Getting peace of mind regarding their health, especially if they are at risk of something and having an early diagnosis for early treatment. Educational and informative to know about the risk factors of prostate cancer. Having a service/pathway that is focused on prostate cancer 	<ul style="list-style-type: none"> Clinicians felt working on the mobile vans was positive & rewarding. Case finding was important for increasing access & prioritising men's healthcare, especially after the pandemic. Significant demand on the mobile vans, with the need to increase staffing & appointment capacity. A considered approach was taken in primary care to manage demand. PSA test is an appropriate starting point for case finding. Staff training was provided across all three sites. The importance of shadowing opportunities & access to key resources were highlighted. The project had a number of positive impacts & outcomes, such as positive patient feedback, diagnosis of those with prostate cancer and outreach to communities/at-risk groups. 	<ul style="list-style-type: none"> Implementation staff were pleased with the levels of patient engagement, & support from GP practices. This project has made a difference to patients & created a legacy in the form of education & awareness of prostate cancer. An understanding of key considerations when implementing a mobile van vs. primary care approach to case finding. The ability to transfer primary care model to other case finding initiatives or geographical locations

	Patient experience	Clinician experience	Implementation experience
Challenges	<ul style="list-style-type: none"> • Different experiences and preferences of how PSA results were received. • Knowing what happens next (and if they will be invited to another PSA test in the future). • Knowing whether a physical examination or DRE was part of the appointment. • More communication and awareness of prostate cancer risk factors. • The perception that there is no national focus on prostate cancer or men's health that emphasises improved access, more awareness and better tests. 	<ul style="list-style-type: none"> • Decrease in demand on moving the mobile vans. • Some difficulties getting referrals accepted into secondary care. • Uncertainty about the impact of the project on prostate cancer diagnosis • Mixed views on implementation of primary care model. • Issues with access to key systems, such ability to order bloods & access main computer systems. • PSA test not a definitive test, clinicians hoped in future, with the advancement of science, they could provide more certainty to their patients. • Considerations of working with target patient population, including low levels of health literacy & having access to relevant information (e.g. email address, phone no. & relevant health information • Confusion over types & lengths of time required for appointments in primary care model of case finding. • Case finding project, via the mobile van, not the right place for some patients. 	<ul style="list-style-type: none"> • Workforce issues in primary care, cancer specialists in urology & staff willing to travel/commute to the vans. • Communication challenges with GPs, wider stakeholders, including those with concerns, & identifying key enablers for van locations. • Large geographical area to cover. • Tracking patients from primary care into secondary care. • Contacting patients, including communication cascade through partner organisations & trying to conduct telephone appointments.

8. Additional findings by theme

Summary:

- Patients had an overall positive experience of getting their results – some also valued the opportunity to speak to a clinician about any further questions or concerns they had and having online access to their health records. When patients described a negative experience, these mainly related to the amount of information they received about their results, having to wait longer than they anticipated and being unsure about what would happen next (and if a future invite would be offered).
- Staff shared that the opportunity to speak to a patient regarding their results, regardless of normal or abnormal, was valuable either to raise awareness of ongoing monitoring of their PSA levels or to reassure them of the next steps. Challenges with results delivery involved ensuring that every patient received their results and making the whole process more efficient, potentially modelling the RMP approach of sending text messages for normal results and having phone calls for abnormal results.
- Patients, clinicians, and implementation staff made reference to wider influences and other awareness campaigns which had occurred in parallel to the case finding project and may have resulted in men coming forward, such as Prostate Cancer UK's campaign and online tool, and

the featuring of prostate cancer in the media linked to high profile people being diagnosed with cancer.

- Clinicians also spoke about guidelines in place for further investigation of prostate cancer in secondary care. Firstly, a lower PSA threshold (as recommended by the NICE guidelines) was used by RMP due to the van's capacity to conduct other tests. Secondly, where several guidelines for referrals were in place (e.g., NICE and local guidelines), this was flagged as causing confusion among clinicians, especially in MSE. To note, the evaluation team does not hold any position on the PSA thresholds that should be used and only aims to share staff's thoughts about these guidelines.

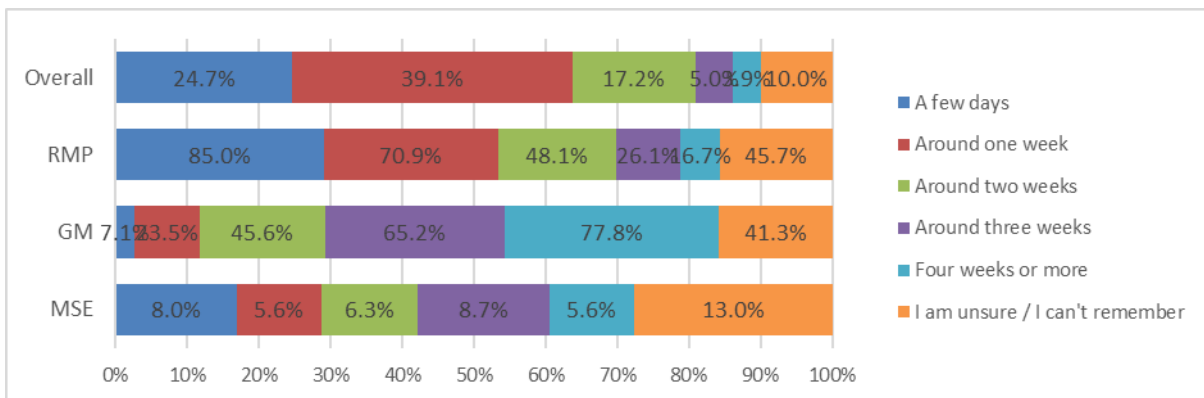
8.1 Results delivery

Within the evaluation questions above, the evaluation team reached a conclusion that results delivery was not covered. This involved the experience of getting or delivering the PSA results from the patient survey and interviews, as well as staff interviews or focus groups, which is reported in the following section.

8.1.1 Patient experience of getting their results

Most respondents received their results within one week (63.8%), followed by two weeks (17.2%). Respondents through the survey mainly received their results through text message (34.1%), telephone call (28.2%) and letter (26.2%). A large majority of respondents indicated that they preferred the method of communication of their results (72.1%) or had no preference (22.5%). At the point when responses to the survey were provided, 91.4% of the respondents had already received their results. However, a small percentage of men (5.8%) indicated that they were still waiting for their results with most of them (65.5%) waiting for four weeks or more.

Figure 42: Breakdown of how long patients had to wait to get their results



In the patient interviews, patients shared that they preferred to get their results as soon as they could and that the longer they waited, the more anxious they became.

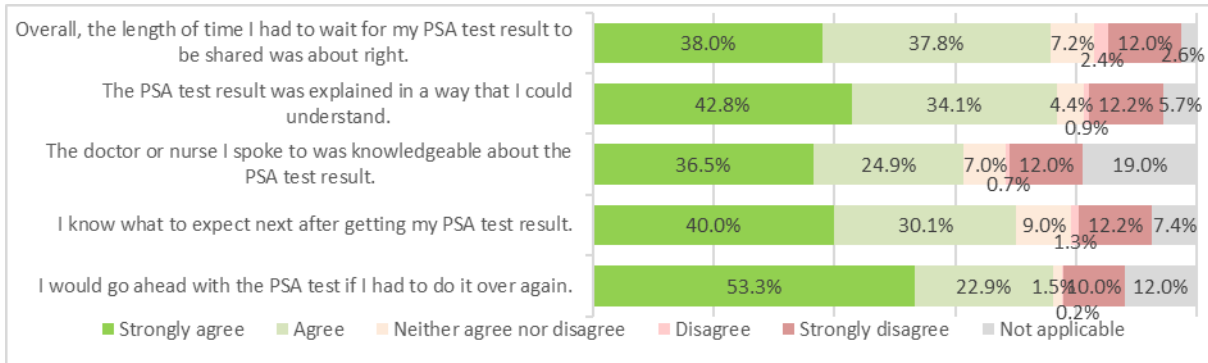
"I suppose the time, waiting for the answer. I mean we'd all like that answer sooner rather than later.... I'm not criticising the turnaround because it was extremely fast I felt, a week. But yes, to have these results sooner would have been better." (P041, MSE)

"I was a bit panicked. Within that two weeks I was panicking whether it's going to be yes or going to be no. So, I was a bit panicking then I'd have said." (P026, GM)

In the survey, respondents were asked to rate five statements (strongly disagree-strongly agree) to describe their experience further (Figure 43). In general, respondents either agreed or strongly agreed (ranging between 70%-77%) across four of the five statements (see Appendix 4 for breakdown of responses by site). Noteworthy is that overall, around 3 in 4 respondents, or 76.2%, either agreed or strongly agreed with going ahead with the PSA test if they had to do it over again; 12.0% of men felt that getting another PSA test was "not

applicable" (this could be due to the lack of clarity on what happens next, which is explored further through the analysis of the free-text responses and patient interviews). The statement "the doctor or nurse I spoke to was knowledgeable about the PSA test result" received a lower agreed rating (61.4%), but this was mainly due to 19.0% of the respondents not having the opportunity to speak to a clinician or were "not applicable" due to the nature of how they received their results which could be through text messages.

Figure 43: Patients' experience of getting their results



When patient ratings of their experience were converted into an average score (i.e., strongly disagree = 1, strongly agree = 5), RMP scored the highest at 4.16, followed by MSE at 4.03 and GM at 3.59. Patients who answered "Not applicable" were excluded from the scoring.

Some patients who were seen as part of this pathway shared their ability to view their results online. This provided a good resource to monitor their results based on historical tests and link them with any other health concerns. This also reassured them that their results were stored on a platform they could easily access. Noteworthy is RMP's approach of creating user accounts for those who were referred to their rapid diagnostic centre, allowing patients to access their records, appointments, referrals and results, as well as provide updates on where they were on the pathway.

"I have an account with system online and that allows me to look at the readings as they come in anyway. That's happened only in the last year or so, so I don't actually have to phone the practice now, I can just look and see. But if it's elevated more than about four or five, and it has been sort of two and ten over the years, I will get a call." (P169, MSE)

"I got an invitation to register for the My Marsden app, which allowed me to, sort of, see all the appointment letters and this, that, and the other online, on my phone, or on my laptop, which worked really well, I didn't have any problems with that at all, which wasn't the case with similar NHS apps or GP-related apps, shall we say." (P078, RMP)

Despite the positive experience reported by patients, several challenges were identified through a free-text question in the patient survey as well as through the patient interviews, with some being isolated incidences:

- a) **Mixed reaction with the amount of information received in the results.** Most patients felt that the explanations were clear, were happy with what they received and did not have any questions following these results. This is also reflective of the patient survey results. However, some patients across all sites felt that more information was needed about the results due to the ambiguous information they received, confusion over what the results meant (and avoiding jargon) and uncertainty about how to interpret the results.

"The test result was ambiguous, not about the PSA, but (and I may have misunderstood what I was reading) in terms of suggesting that I may have a mild UTI and, if so, how I ought to follow this up. It was a part of the result that was not clearly explained. Maybe each section of the output ought to have a small note in non-technical terms?" (RMP – patient survey)

"Yes, because just saying it's normal is a bit imprecise. Well, I suppose, I don't know, is it high end of, middle of normal, lower end of normal, is it changing over time?... probably more information about context, historical readings, and therefore, if you could say, "Well, it's not got worse in the last three years, so contact your GP in about two years." " (P007, GM)

- b) **Speaking to a clinician.** Some patients shared that they would have preferred to speak to a clinician, or at least someone who was clinically trained, regarding the results to have the opportunity to ask questions and be reassured of the results. It is worth noting GM's approach of having consultant urologist-led "results clinics" with all patients over the phone regardless of their results. However, one patient in RMP felt that having phone conversations with all patients may not be the best use of resources.

"I think getting it from a receptionist probably wasn't the best, I think we've got somebody with a little bit more understanding of what it is that you're being tested for, if you were to be given a number to ring, or for somebody to actually ring you back from within that world, you can talk to them." (P043, MSE)

"I am now quite used to having conversations about cancer, and I'm just aware of the fact that that's not true for other people, and it's a difficult one, because it's a waste of resources to phone everybody, but if you say we're going to phone you later then you are giving someone an hour, an hour and a half's anxiety." (P070, RMP)

- c) **Difficulties in getting the results.** A few patients shared their frustration with getting their results especially when they might have missed a call from a clinician or did not receive this at all. They also attempted to call the programme team to ask about their results. This problem was acknowledged by the GM team who felt that more admin support would have been beneficial to ensure that patients could get in touch with members of staff if they needed to.

"The problems came about when I tried to get the results. I was told that I would be phoned with the results. There was no phone call. They had my landline and they had my mobile number... So after a while, I rang them to find out what the results were. And many times it was just an answer phone. I couldn't get through to anybody, so I ended up emailing them. I emailed them time and time again, got nowhere, nobody replied. And I think in the end I wrote a letter, and that's when somebody replied to say, "Yes, your test was negative." (P038, GM)

"I was told they would get back in touch if there's anything wrong. If there's nothing wrong, then they may not get back... it would have been probably a whole lot more satisfying to get a letter that says, "Look, you are perfectly okay. Everything is fine." ... A letter or an email would've been a better thing." (P217, MSE)

- d) **Unsure about what happens next.** Following the results, men were unsure about what the next steps would be (e.g., whether they would be invited to a follow-up test and how long the next test would be).

"So, whether or not I will have to follow it up again myself in another year's time, or whether something will automatically feed through saying, "Time for your PSA test again." I don't know what that looks like going forward." (P043, MSE)

"I'm assuming that in a couple of years' time, I will get a follow-up invitation to have another test, but I'm not clear about that... Yeah, but I'm aware that these protocols change and that you know new tests will be developed so you probably can't be that clear about what's gonna happen in the future anyway." (P070, RMP)

8.1.2 Staff experience of delivering the results

As discussed in Section 5 above, each site had different approaches to delivering the results, but one similarity is phone calls to patients when results were abnormal. When patients were given an abnormal result, staff from GM and RMP shared that patients were more concerned and had further questions about what would happen next. Some of the questions patients had revolved around 1) whether it was prostate cancer, 2) needing further clarification on the elevated PSA, 3) what tests they would need next, 4) where would the tests take place, and 5) if they needed a biopsy.

"In the case of it being abnormal, again, the biggest worry is is this prostate cancer. The second question was what tests am I going to have. Third question is where am I going to be seen. The fourth question is am I going to need a biopsy? Quite a lot of people were quite anxious about the biopsy." (GM)

"When you are giving them the results over the phone, then often you do phone people and you say, "Your PSA has come back high," and they will ask, "Well what does this mean?" You have gone through all this but actually now that you've told them their PSA is high, they're panicking and they've forgot everything that you've already said." (RMP)

Staff shared that how the result was communicated helped in reducing the patient's anxiety. Specifically, being "positive" and positioning the call and referral as ensuring that anything "sinister" could be treated accordingly has helped with this.

"I think you try and play it positively almost when you're on the phone chatting to them, saying we're not really too sure what's going on at the moment. We just have this raised PSA but we want to make sure if there is anything sinister, we can treat that. So just taking a bit of time on the phone calls..." (RMP)

Questions were also not limited to when patients had an abnormal result. Through the results clinic in GM, patients with a normal result also wanted to know more about their results, namely 1) the PSA value, 2) whether they needed to have another one, and 3) whether the result guaranteed them that they were clear of prostate cancer. Most patients with a normal result, however, had very short conversations and mainly extended their gratitude to the clinician. Staff shared that the time spent speaking to patients about their results was valuable as a final opportunity before being discharged from the pathway to raise awareness of their risk of prostate cancer, increase their understanding of the possibility of a false negative result and not think that that was the last PSA test they will have.

"With a negative result, I had the opportunity to really go through it, partly because my process was to raise awareness in high risk individuals and groups. I didn't want patients thinking they'd had a PSA result and that is door closed, no more conversation required, I will never need another test again. So I was quite keen to explore the false negatives with the patient just to explain it's not 100%, get talking about it, be aware of it." (GM)

Several challenges with delivering the results were discussed:

1. **Ensuring that every patient gets their results.** GM's approach to calling all patients comes with its challenges, namely getting through to the number provided and ensuring that the results were communicated to the patients as promised. Staff reflected that Thursday clinics were not as successful as Saturday clinics and despite having a planned time to have these calls, these depended on their availability on the day. When patients were not reached, the clinicians would rebook them for another appointment and attempt to contact them two more times as per their normal practice in other clinics. Unfortunately, some patients could not be contacted, but these were only a handful.

"We would generally do the clinic between 10 and 12 that it would be scheduled for although whether we could, as clinicians, quite fulfil that, it may have been a bit later or a bit early depending on when there was availability... I think we only had a very, very small handful of patients who we could not contact whatsoever." (GM)

The evaluation team found through the patient interviews that some patients did not get their results and were told they would be contacted if anything came up, rather than a clear result that their PSA was normal or within range.

2. **Making results delivery more efficient.** Clinicians from GM also reflected on whether there were efficiencies to be made in how results for normal PSA tests were communicated with patients, sending letters instead of conducting telephone calls – similar to the RMP approach – and they were keen to see how the other sites had approached results communication, as described below:

"I'd like to know whether or not it would have actually been better just to say to the patients, "If your result is normal, we'll just send you a letter." Actually, that would potentially save quite a huge amount of additional workforce capacity. I feel comfortable that we did it in a telephone manner because I think that a lot of the time the patients wanted to hear the results and they'd have some questions about that as well. So, I think that probably was the right way to do things, but it would be interesting to hear what the other Cancer Alliances did... I think it's good to make contact with the patients just to give them some reassurance and answer any questions that they might have the time. I think we felt that was the right thing to do at the time." (GM)

3. **Reassuring patients with abnormal results over the phone.** Staff in RM felt that providing reassurance to patients who were anxious is further difficult due to how the information was communicated and might have been different if a face-to-face consultation had taken place instead.

"So I think when patients are quite anxious, I think that's quite challenging and trying to reassure them over the phone can be difficult because there's not that face to face communication which you can sometimes use as a bit of reassurance as well." (RMP)

8.2 Wider influences & other prostate cancer awareness campaign

During the implementation focus group at MSE, staff members acknowledged that this case finding initiative was also taking place in parallel to the advertising and roll out of Prostate Cancer UK's online tool:

"I think it's come at a time when the Prostate (Cancer) UK are also pushing out their check-up, which is a great thing, which is fantastic, and I don't know if that may have impacted on someone coming forward, for example, because they may have gone on a checker and thought, actually, do you know what, I don't need it. So, that would be an interesting piece of work to do to try and work out that" (MSE).

A clinician from secondary care in MSE commented upon the information that had been shared in the media about the King's health and how something like that can have an impact on men coming forward with prostate cancer:

"I think the thing is, especially, for example, it's not so much the patients knowing about it, I think, for example, obviously, the king's just been diagnosed with prostate bits and pieces, and we get a massive influx when something big like that happens. It's not so much this programme itself, because I think the patient will just go to see his GP just saying, X and Y, and then their GP will do that. So, I think from a patient's perspective, they flood in once something in the media is known" (MSE).

8.3 Guidelines for further investigation in secondary care

Staff in MSE shared that there were several guidelines in place (NICE guideline, East of England guideline and local guidelines) to decide whether a patient is referred to secondary and this has caused confusion over which guideline to use and whether the appropriate investigations were carried out.

"I think my only concern was through the referral process when I was looking at the two-week wait referrals, the guidelines didn't match the guidelines for my local service, and the units that they used were different... And I think that's where the confusion came in as well with the patient that was referred before I'd reviewed him, because he did meet the requirements under the local referral guidelines, but not necessarily under the ones we were given for the prostate cancer pilot." (MSE)

"I know the East of England guidance for referring patients do have their own parameters with regards to PSA, for example, but our hospital has a different set of parameters for their bloods. The NICE guidelines have a different set of parameters for their bloods, so it did go through a phase of us bouncing back to primary care going, "What parameters do you want to use?" Because the GPs are saying, "Well, this patient's breaching." East of England guidelines say, "No, they're not." NICE guidelines say, "Yes, they are." And it got quite heated at one point." (Secondary care staff, MSE)

"It can be quite problematic sometimes, especially with a lack of overall guidelines. There do seem to be a lot of external, as I say, organisations trying to put in their two pennies' worth with regards to how we should be doing things as secondary care. And I know these guys set their guidelines, but they don't seem to appreciate the resources that we have or do not have with regards to keeping an eye on these guys." (Secondary care staff, MSE)

The conversation on PSA guidelines also extends to RMP where they had a lower threshold when introducing patients to secondary care, which at times caused challenges if patients were referred to their local hospitals and not the Marsden. This decision was based on the lack of facilities on the van for a physical examination to be carried out. The referral threshold referred to in the quote below is in line with the threshold recommended by the European Association of Urology³.

"because we don't do the physical examination on the van, we have a lower threshold with the PSA. So generally, if the PSA, we're looking at around three or above, then we want to consider referring. So I had some that were referred because their PSA was below the NICE guidelines threshold." (RMP)

Staff also felt that clinical judgement would be required when referring patients and that the PSA reading should not be a barrier to referral. Staff felt the level of assessment carried out on the Man Van provided a good basis for a referral. Some hospitals also had their existing practice of processing referrals, which were mainly based on the thresholds in the NICE guidelines.

"Those GP referrals are nothing like the level of detail that we do in our assessments. The GP referrals are often very much PSA above this, PSA below this. For us, the PSA thresholds are a guide and very much something that we use just to gauge what we think normal should be but it's by no means a barrier to referral. I think part of the difference is communicating that look this is a quite in-depth assessment with discussions on lots of different risk factors, symptom scores, all of those things. So when we make a referral, there's often more to it than what the hospitals are used to seeing. So when it lands on their desk and it's below threshold, they just sometimes say... so we've mitigated that to a large extent with good communications between different hospitals. But sometimes, when it's been a hospital that we don't refer to very often and maybe we've not had direct communication with their team about the service, then it gets these sorts of issues have come up but thankfully not very common." (RMP)

³ [Prostate-specific Antigen Testing as Part of a Risk-Adapted Early Detection Strategy for Prostate Cancer: European Association of Urology Position and Recommendations for 2021 - ScienceDirect](#)

Official Sensitive Commercial

The decision undertaken by RMP was also due to their experience and data of prostate cancer diagnoses from those who had PSAs that were below the thresholds set nationally.

"I think it's tricky in that in terms of men we referred to the Royal Marsden who had PSAs below the national guidelines who then we have gone on to find very significant prostate cancer in. So I think when we referred people elsewhere and their PSA has been below the threshold, that has been slightly tricky for us as a team just because of what we've actually found from our referrals." (RMP)

To note, the evaluation team are not clinicians and do not hold any position on the PSA thresholds that should be used and only aim to share staff's thoughts about these guidelines.

9. Conclusions

Several evaluation aims were set out at the start of this project. Data gaps and considerations mean that it has not been possible to comprehensively address all of those aims but through analysis and synthesis of what is available, several headline conclusions can be drawn:

- a. **On the whole, the approach to identifying and inviting cohorts used in the case finding projects seemed to successfully reach and engage with the target groups.**
 - Evidence that invitations/counselling were taken up by the target groups. Men in more deprived communities, and across all appropriate age and ethnic categories were well represented, with men of black ethnic origin being represented in a significantly higher proportion than in the general population.
 - Staff reported the project reaching people in the community who might not have had a PSA test.
 - Two aspects of the model that may have impacted the success of supporting target groups to attend were the methods of patient identification, patient invitation and a marketing approach that helped increase awareness and encouraged self-identification from men. Sites also used different criteria for eligibility.
 - Men responded to the invite because they wanted to accept the offer for a health check, viewed the opportunity as part of their ongoing PSA monitoring, heard about it from friends and family, and valued the convenience of the van. The proactiveness of this pathway through the invitation and not having to ask for a PSA test from their GPs was also valuable.
 - The men that were invited (and ultimately tested) reflected the criteria that each site used to identify their target groups. RMP's only criterion was to include men over 45 as they were offering a broader health check beyond just PSA testing, and therefore a much broader coverage of ethnicity was obtained, although they focused much of their effort on areas where there was a significant population of men of black ethnic origin. MSE and GM were more targeted in their approach, meaning they intentionally targeted men of black ethnicity. Also, whilst criteria were defined and set for the initial searches, these were tweaked as the project progressed, meaning any direct correlation between the method and the outcome was not possible.
 - There is some additional context to also comment upon when assessing the invitation and uptake data. For example, whilst men of black ethnic origin appear to have been, in part, successfully targeted, White men were more likely to take up the offer of a counselling appointment. There are further considerations within the data, such as the absence of counselling appointment data from one of the three sites (GM), which makes it difficult to draw a clear conclusion.

- b. **The majority of men who had PSA counselling went on to receive a test, with all sites ensuring that they delivered a counselling conversation about the PSA test.**
 - The patient-level data and the qualitative work found that the majority of patients who attended an appointment for PSA counselling went ahead with a PSA test.
 - Men valued the opportunity to speak to a clinician during PSA counselling and obtain information about the PSA test, although often men had already decided to have the test when they booked an appointment for the PSA test.
 - Men did not always know whether a physical examination or DRE was part of the appointment, and patients and clinicians felt that it could have been a barrier for other men to come forward.

- Staff felt that PSA counselling was necessary to inform men about the possibility of false positives and negatives and allow for shared decision-making.
 - Patients who did not go ahead with a PSA test shared that it was because they were either not offered one, had one recently, or that they questioned the benefits or reliability of the test.
- c. While patients were satisfied with how they received their results, some felt they did not know what would happen next after the test**
- Men did not always know what the next steps would be, for example whether they would be invited for another PSA test in the future, and asked for a national programme on prostate cancer or a long-term plan for prostate cancer detection. At present, current information and guidance is only available via the Prostate Cancer Risk Management Programme.
 - However, men overall had a positive experience of getting their results.
- d. Patients felt that the vans were novel, but staff felt that managing them was challenging**
- Patients thought the vans were accessible, visible, and novel, and appreciated not having to go to their GP for a test.
 - Staff working on the vans reported significant demand for appointments, which at times surpassed capacity available and required delivery approaches to be adapted
 - The mobile van approach to case finding encountered significant operational issues, whereas primary care case finding seems to be adopted into normal workload.
 - The teams running the mobile vans had to try a range of different invitation strategies, namely public outreach and communications, but this was a labour-intensive strategy, whereas invitations via text message were a more measurable approach but this was reliant upon primary care record searches being correct.
- e. The delivery team and communication are key to the success of a case finding pathway regardless of the delivery model**
- Critical success factors for implementation were assembling the correct clinical and operational teams, and communication at multiple levels with all types of stakeholders. Managing relationships within the system (e.g., ICB, public health teams, local hospitals etc.) and co-producing relevant materials were also key to ensuring the pathway's success.
 - Challenges with the workforce include the high demand for primary care staff time, availability of cancer specialists in urology and staff willing to travel/commute to the vans given the change in locations.
 - Communication challenges were noted involving GPs, wider stakeholders (including those concerned about the project) and identifying key organisations or relationship as enablers for van locations.
- f. Links with secondary care were sometimes challenging in terms of data access and requesting referrals**
- Incomplete data from the later stages of the pathway, for example patients who were referred to secondary care shared their experience of having their prostate removed or undergoing radiotherapy, including patient perspectives from MSE, illustrating the treatment data is incomplete.
 - Implementation teams encountered challenges in local monitoring, especially tracking or having access to all data sources to follow patients through the pathway, resulting in manual approaches to obtain the data.
 - Secondary care staff reflected that when certain tests, such as urine infection or repeat PSA tests, were not included as part of their referral to secondary care,

this could cause referrals to be declined and would require further discussions with the trusts involved.

- It also appears that secondary care was not overwhelmed by the additional activity of the case finding pathway.

g. The impact of the project is difficult to demonstrate in terms of cancer diagnosis or impact on delivery

- The data is inconclusive in determining the impact of case-finding on the numbers of men diagnosed and the stage at which cancer is diagnosed.
- The small amount of data provided does suggest that case-finding supported the identification of clinically significant disease. The data provided did not allow any conclusion on the impact on other related pathways.
- While the prostate cancer treatment gap which manifested during the pandemic was an important rationale for this project, according to internal NHSE data analysis, the original treatment gap identified by NHSE in January 2023 had reduced by February 2024. It was not feasible to examine this through this evaluation or to attribute this reduction to the case-finding projects. However the projects may have contributed to the clearing of the prostate cancer treatment gap, alongside other wider NHS activity.
- The number of referrals over the course of the project was relatively small and is likely not to have increased overall activity greatly.
- This project did not occur in isolation from usual NHS cancer care and the secondary care pathway remains the same, so it is difficult to separate or judge the impact on service delivery, as service delivery becomes the norm for prostate cancer.

h. Overall, patients, clinicians, and implementation staff recognised the value of the project

- In general, patients, clinicians and implementation staff were positive about the project, welcoming the renewed focus on men's health and being offered a PSA test, and the educational element of the project.
- Where challenges or difficulties were identified by patients and staff, these were attributed to operational or process issues, rather than fundamental issues with the principles of case findings.
- There was also a wide range of patient expectations about the project and how it has impacted them (e.g., early diagnosis of prostate cancer, peace of mind, educational).
- Most clinical and implementation staff felt there had been several positive outcomes associated with the project, including outcomes for patients, communities, as well as wider learning for primary care and the NHS. Staff also felt that the project has made a difference to patients and created a legacy in the form of education and awareness of prostate cancer.
- Some clinicians felt the impact of the project had been limited in terms of the number of men diagnosed with prostate cancer.

9.1 Strengths of the evaluation

- This evaluation occurred in parallel to the implementation of this project and offers observations, evidence and implementation learning on the models used. As such the evaluation captures what worked and did not work as well, which is relevant to future case finding initiatives.
- The role and appointment of independent evaluators has allowed for an impartial assessment of this project.

- The evaluation team established and maintained a positive relationship with all project sites, which ensured that relevant information was cascaded, all possible data was collected, and any problems were resolved collaboratively through agreed points of escalation.
- This evaluation has captured a wealth of data on the experience of patients and staff through interviews and focus groups. Patient experience is of particular importance as this fills a gap in the existing evidence on case finding and challenges a preconceived assumption at the start of the evaluation that men may not engage in interviews. Of significance, the qualitative elements of this evaluation captured the experience of men who were subsequently diagnosed with prostate cancer, some of whom did not have any of the known risk factors.

9.2 Limitations of the evaluation

- It was not possible to draw conclusions from some of the original aims and evaluation questions due to the lack of adequate data.
- The differences between models were very subtle and sites made adjustments to their approach throughout project implementation to overcome challenges they encountered. For example, RMP had a different approach to invitations each time they moved location, while some practices within MSE edited the letter templates to reflect a more considered or careful approach to case finding in primary care. Therefore, it is difficult to attribute findings to specific features of the model.
- There is an absence of a "control" or comparator to case finding for prostate cancer, for example it is not possible to put the data presented here into the context of men who would have presented at their GP practice, as per normal or routine healthcare.
- Self-identification from men due to the awareness campaigns, either by project sites or charities (e.g., Prostate Cancer UK), may have impacted the results as this would not necessarily be considered a case finding or "targeted" approach.
- Obtaining consistent data across all sites was challenging which made comparing findings difficult. In fact, contradictory data sources were also available from sites.
- It was difficult to differentiate clinician and implementation experiences, as staff members overlapped in their roles and responsibilities.
- Secondary care staff often gave broad commentary, and it was difficult for them and the interviewer to isolate whether they were commenting on the project or general cancer processes/pathways.

10. Recommendations

The rationale for this project was the prostate cancer treatment gap which manifested in the pandemic. The nature and scale of the project is such that it is not possible to draw any conclusions about the role of case finding in prostate cancer as a means of shifting stage at diagnosis.

If a similar case finding approach were to be tested or implemented for other conditions, programme teams may want to consider the following recommendations:

- a. Projects need appropriate infrastructure and support, IT and data solutions.**
This would allow project sites to monitor activity along the full extent of the pathway – both in the community or primary care and into secondary care – in a timely manner and to measure process and outcome measures. This would also provide a holistic view of the patient experience as well as capture any operational challenges.
- b. Tightening of key parameters for 'at-risk' groups or invites.**
Each provider should implement clear criteria for identifying 'at-risk' groups in line with guidance from nationally defined case-finding protocols. This criteria should be applied consistently for the duration of the project to aid evaluation. There is a need to carefully design and test primary care search, identification and invitation strategies so the correct 'at-risk' groups are invited to clinics.
- c. Further exploration of the most effective method to increase public engagement**
Anecdotally, implementation teams felt that GP text messages were effective in increasing engagement from the public. This was also mirrored through the evaluation teams' approach of inviting men to complete an online survey. However, further exploration may be required if text message invites are to be recommended (and if this is indeed most effective to engage the public). This should extend to suitability and effectiveness across different sociodemographic groups and how the approach may need to be flexible in order to achieve equitable levels of take up.
- d. Projects could benefit from a walk-in facility and/or online booking mechanism.**
There were a range of options for setting up a site to implement case finding. To maximise the novelty of mobile van, staff felt accepting 'walk-in' patients would be beneficial. However, this would need to be supported by access to patient health records. Additionally, to ease the administrative burden of case finding invites, staff suggested exploring the means for online booking, which would incorporate mandatory health information and contact details to assist with communication and capture relevant health information prior to appointment, such that ineligible patients could be filtered out.
- e. Future service planning should take account of unexpected costs associated with resolving operational issues.**
Implementing prostate case finding within an existing service may result in a range of operational issues. Awareness of the likelihood of additional unexpected costs would allow for mitigation at the planning stage.
- f. Evidence or guide on how to operationalise a mobile van (i.e., a "how-to" guide).**
Practical guidance on the detailed running of a mobile van would allow sites to learn from the experiences in the project especially with mobile delivery models becoming topical and have been used for various health conditions.

g. More awareness of risk factors and improved access to get a test.

Case finding allows members of the public an alternative way to get tested from their GPs for a condition they might be at risk of. Raising more awareness and increasing access could be beneficial to targeted groups.

Within the scope of prostate cancer diagnosis, the following recommendations may need to be considered:

h. Clearer information about where case finding for prostate cancer fits into wider men's health programmes or addressing health inequalities.

National guidance would be required to provide a framework encompassing case-finding and other 'health-checks' to deliver a clear set of objectives for Integrated Care Systems to implement. This would also provide clarity on "what happens next" for men following their results.

i. Development of a framework on how to conduct PSA counselling.

While all projects delivered PSA counselling with patients, what was covered in these conversations was unclear. A comprehensive framework on PSA counselling that supports shared decision-making with patients would be beneficial.

j. Clarity needed over guidelines for further investigation in secondary care.

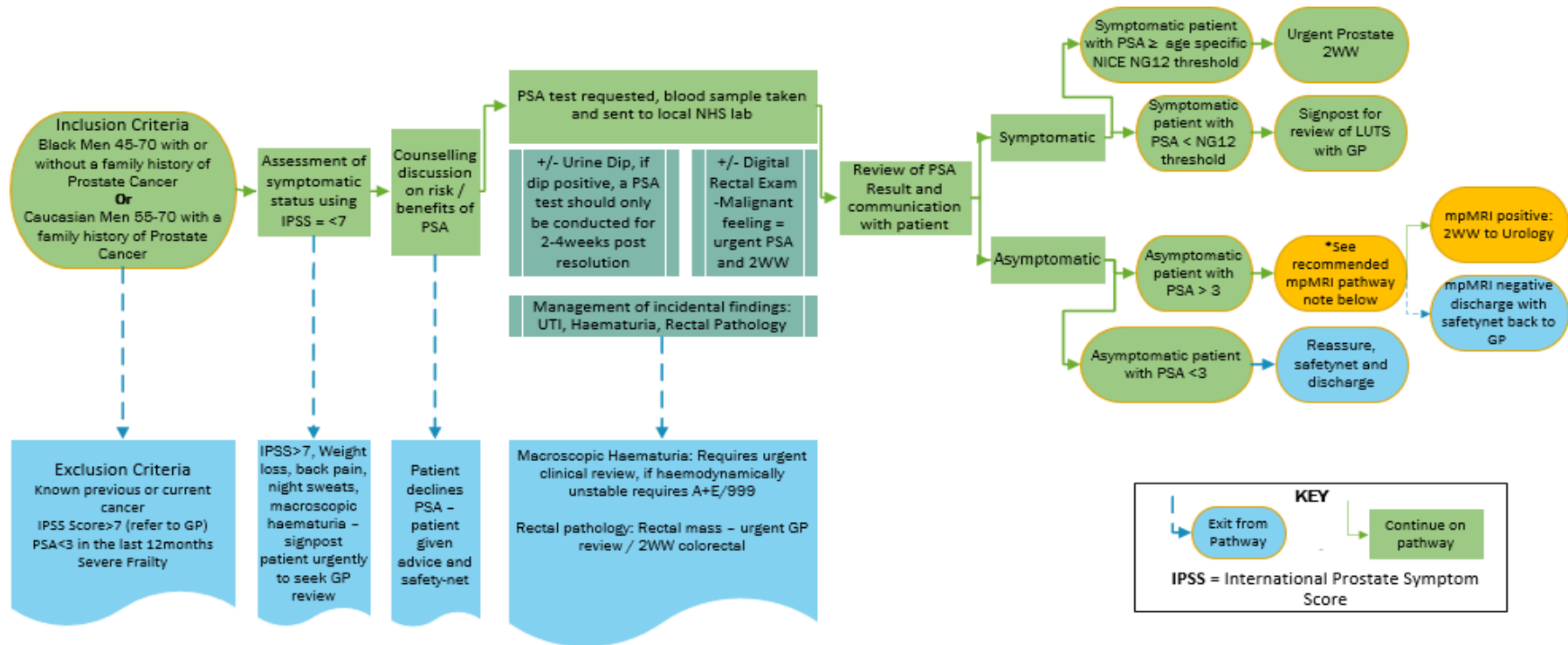
Sites had different interpretations of the PSA tests and thresholds required to refer patients to secondary care due to the nature of their delivery model or the presence of several guidelines in a locality. More clarity on what is required (especially with the limitations of the PSA test) to refer patients to secondary care would be valuable.

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Appendix 1: NHS England project pathway



*There are known regional variations in how asymptomatic patients with a positive PSA are managed. Pre-existing local pathways may range from A+G first through to direct to urology 2WW pathways. We recommend that case finding programmes work with local urology teams to further develop this. The NHS Cancer Programme recommends systems to consider, with local clinical consensus, the development of a routine mpMRI pathway in asymptomatic patients (IPSS < 7), who have a negative DRE, and no previous history of cancer, aiming for patients to be imaged within 28 days and no later than 8 weeks from referral. An automatic urgent 2WW referral should then be made by the trust if the mpMRI is reported with suspicion or confirmation of prostate cancer. Ideally this should not be referred back to the GP to action.

Appendix 2: NHS England logic model

Rationale	Inputs	Activities	Outputs	Short Term Outcomes	Medium- Term Outcomes	Impacts
<ul style="list-style-type: none"> Due to the COVID-19 pandemic, thousands fewer men have started treatment for prostate cancer than we would have expected, with referrals and treatments for prostate cancer dropping significantly during the pandemic. <p>This project has therefore been designed to identify people at higher risk of prostate cancer and to bring them into contact with services for a conversation about the PSA test, and for</p>	<ul style="list-style-type: none"> Dedicated project team to manage pilot. Pilot funding. Staffing resources on local sites - i.e. staff to offer PSA counselling discussion, admin staff to manage patient engagement. PSA tests. PSA test Lab resource. Staff trained to provide test results. Staff appropriately trained to interpret and manage PSA test results. Governance structures to oversee guidance documents and implementation of the programme 	<ul style="list-style-type: none"> Development of pilot case finding pathway for prostate cancer. Provision of delivery framework, including the clinical protocol, clinical advice, delivery chain and programme governance. Development of example case finding models for Cancer Alliances. Project management to oversee the implementation and delivery of the programme, alongside clinical oversight and local governance. Engagement of healthcare providers in the local system to ensure appropriate management of adverse events, incidental findings and to enable monthly information reporting. Identification of eligible participants. Delivery of PSA consultation discussion, 	<ul style="list-style-type: none"> Clinical protocol and escalation policy. CPT support to pilots for delivery e.g. share and learn and use of existing structures within the CPT. Case finding pathway for prostate cancer developed and embedded in pilot sites. Assessment of symptomatic status. Asymptomatic patients who meet the threshold offered PSA testing. Symptomatic patients meeting IPSS threshold referred urgently to GP. Target cohort offered PSA counselling discussion. 	<p>Patient Level Outcomes</p> <ul style="list-style-type: none"> Increase in patients having consultations / counselling about PSA testing in target group. Increased uptake of PSA testing in target group. Reduced inequalities in access to PSA counselling/testing due to case finding and engagement activities. Improved and sustained knowledge of prostate cancer risk. <p>Clinical services:</p> <ul style="list-style-type: none"> Increased support for PSA testing for asymptomatic prostate cancer from primary care. 	<p>Patient Outcomes:</p> <ul style="list-style-type: none"> Improved patient quality of life (health related quality of life) e.g. through less invasive treatment. Increased patient satisfaction with services. Diagnosis of prostate/other cancers at an earlier stage. Improved time to diagnosis for prostate cancer. Improved time to treatment for prostate cancer. Reduced time to diagnosis for other health conditions, including other cancers, due to incidental findings. <p>Clinical Services:</p>	<ul style="list-style-type: none"> Contribute to the recovery and restoration of services from the pandemic at a local level demonstrated in the pilots by reduction of the treatment gap for prostate cancer created over the pandemic. Contribute to improving early identification and diagnosis of prostate cancer to achieve the Long-Term Plan ambition of 75% of cancers diagnosed at stage 1 or 2 by 2028. Reduced inequalities in diagnosis and starting treatment for target population.


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<p>onward PSA testing in those that want it.</p> <p>The intention is to support recovery and a return to the numbers of people being diagnosed and treated for prostate cancer that we would expect.</p>	<p>and quality assure the process.</p> <ul style="list-style-type: none"> •IT infrastructure to collate, record and disseminate data back to the evaluation partner and NHS Cancer Programme. •Cancer Alliance resource for project management, implementation, monitoring, and data support. 	<p>PSA tests and appropriate follow up of results and treatment as required in line with clinical guidance.</p> <ul style="list-style-type: none"> •Pilot site participation in the evaluation, including data collection, supporting the evaluator in providing necessary information and evidence. 	<ul style="list-style-type: none"> •Patients attend PSA test appointment and receive PSA test. •Services embedded to support communication and management of patients appropriately following clinical protocol. •Development of an evaluation specification and procure and evaluation partner. •Develop a minimum dataset to support data collection. 	<ul style="list-style-type: none"> •Change in PSA testing depending on the model (i.e. whether GP practices are involved or bypassed). 	<ul style="list-style-type: none"> •Improved pathway as a result of the pilot such as BPTP. •Increase number of referrals for prostate cancer. •Cancer Alliances/CPT: Improved knowledge of resources, cost, training, staffing, ease of use, patient satisfaction involved in prostate cancer case finding pathway. 	
<p>Assumptions</p>	<ul style="list-style-type: none"> • Patient cohort identified. • Patients engage with pilot. • Patients accept PSA counselling discussion offer. • Patients accept PSA test offer. • Enough patients will attend a PSA blood test appointment. • Overall accuracy for PSA test and thresholds is adhered to. • Sites have capacity and capability for follow-up on diagnostic tests and communicate PSA test result. • Hospitals have resource to meet potential increase in referrals on the urgent suspected cancer pathway (formerly two week wait pathway). • Sites have capacity available for monitoring patients on the pilot. • Patients are managed appropriately i.e. following the clinical protocol, incidental findings managed appropriately. • Targeted case finding leads to increased PSA testing and detection of prostate cancer. 					

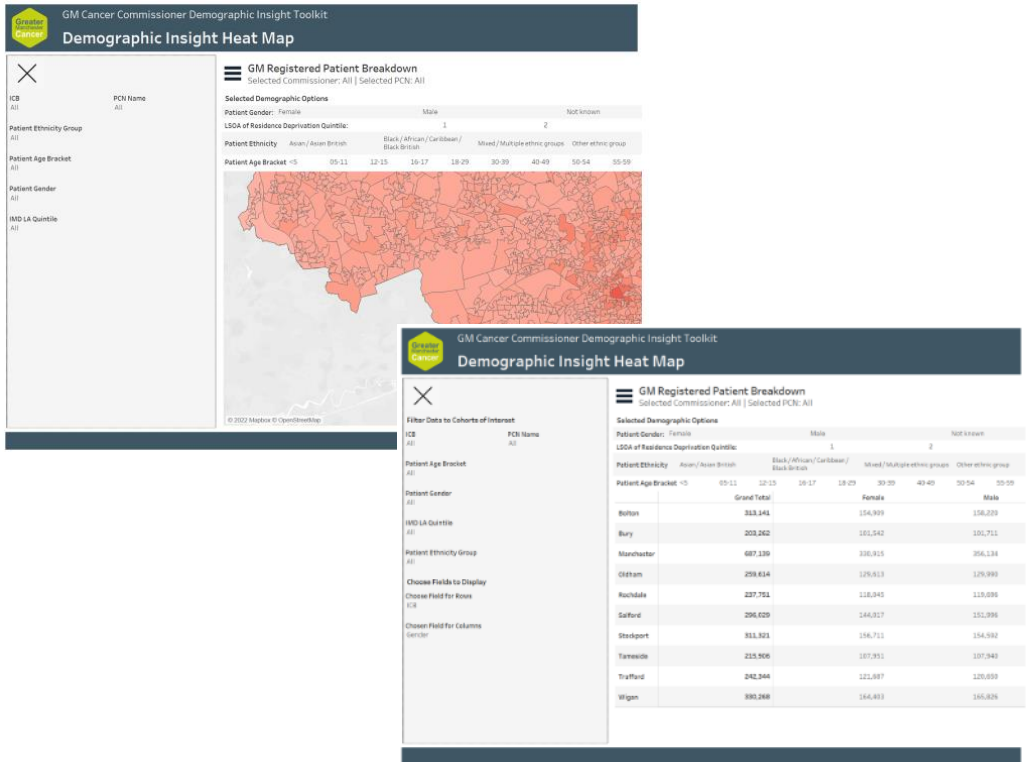
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Unintended Outcomes	<ul style="list-style-type: none">• Increased pressure on secondary care services.• Increased anxiety about risk of prostate cancer.• Patient quality of life could decrease for asymptomatic patients with positive but not significant PSA or clinical insignificant cancer test result.• Non-black men / not targeted group underestimate risk.• Variation in healthcare offered geographically.
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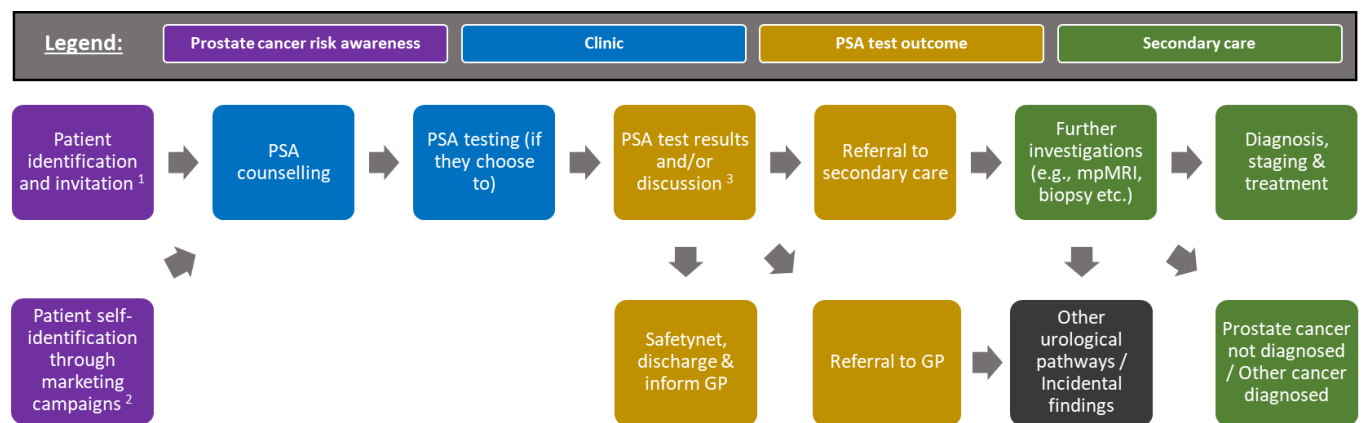
Appendix 3: Site profiles

Greater Manchester: Mobile van (Model 1)	
Background	Stakeholders
<p>The Greater Manchester area consists of a population of 2.55 million and covers 10 boroughs of Manchester. Prostate cancer diagnosis is still not back to pre-covid levels and therefore a national pilot has begun to target at-risk groups. Greater Manchester Cancer Alliance, part of the NHS, has secured funding for a new mobile van which will visit areas across all 10 boroughs of Greater Manchester to provide counselling about prostate cancer risk and offer PSA tests to people most at risk of prostate cancer.</p> <p>This work aims to help support the long-term plan for 75% of cancers to be diagnosed at stages 1 and 2 by 2028 when cancer is easier to treat. The at-risk groups we are going to target are primarily:</p> <ul style="list-style-type: none"> • Black men over the age of 45 • Men over the age of 45 with a family history of prostate, breast or ovarian cancer. Specifically, men would have a father or brother with prostate cancer when they were under the age of 55 or mother or sister with breast or ovarian cancer when they were under the age of 50. <p>Jewish men over 45 and trans women and non-binary people with a prostate were also invited to attend an appointment.</p> <p>The site piloted the "ThisVanCan" mobile service as part of this case finding pathway. The mobile van was located at Bolton, Bury, Heywood Middleton & Rochdale, Manchester, Oldham, Salford, Stockport, Tameside, Trafford, Wigan and Leigh, and focused on local supermarkets or shops (e.g., Morrisons, Tesco, Asda, IKEA) to increase the awareness of the local community of the pathway. The pathway ran from 2nd May 2023 to 31st October 2023.</p>  <p>National and international data suggest that Black men suffer poorer outcomes regarding prostate cancer. This includes recent data from a joint project between NHS England and Prostate Cancer UK, who underline that whilst black men are more likely to be diagnosed with prostate cancer, diagnosed at a younger age and sometimes diagnosed with a more aggressive form of the disease, there was still low awareness in Black communities regarding their risk of prostate cancer.</p> <p>Black men over 45 are twice as likely to develop prostate cancer than other people. And 1 in 4 black men over the age of 45 will develop prostate cancer in their lifetime. In addition, men over 45 who have a history of prostate cancer or breast cancer in their family of all backgrounds/race are at a higher risk of prostate cancer.</p> <p>Greater Manchester chose to include men with mothers or sisters with breast or ovarian cancer as there is evidence that suggests both cancer types are linked to the BRCA gene mutations, which are also found to increase the risk of an individual developing prostate cancer. This was also found to be the case for Jewish men who were more likely to carry the BRCA gene mutation.</p>	<ul style="list-style-type: none"> • Salford Royal Hospital (Northern Care Alliance NHS Foundation Trust) • Greater Manchester Cancer Alliance • Prostate Cancer UK • CAN Survive • CAHN (Caribbean & African Health Network) • BHA (Black Health Agency) • PCN leaders • EMS Healthcare • Public health • Healthwatch

The van was located in areas of deprivation where the patient's access to healthcare was less than average. The GM Primary Care Data Quality Team have set up data searches which can be run in each GP practice across GM – providing practices with named lists of 'at risk' patients and summarised figures per PCN for the Alliance planning purpose. Data sets and a 'heat map' to show areas in GM with high levels of deprivation were developed to plot the programme for this pilot:



Delivery model



¹ GP text message to invite patients to book an appointment.
² Marketing campaigns involve posters, media coverage, advertisements and information that is made easily available to the public, which increase patients' own awareness of their risk and self-identify with the van.
³ Patients will receive their results within 7-14 days through a telephone call.

1. Prostate cancer risk awareness

- Patients are identified through Directed Enhanced Service (DES) and invited to the van through GP text messaging services.
- Patients may also self-identify through the comprehensive marketing and communication approach taken to inform the public, particularly the target population, about this new pathway. Some of the activities include a

social media toolkit given out to various stakeholders, A3 and A4 posters in surgeries, supermarkets, barber's shops and libraries, and appearances on national television (e.g., Channel 4's Steph's Packed Lunch). The full list of activities can be found in the "communication and engagement" section below.

- Patients would then be required to book an appointment, either through phone call or email, to discuss their risk of prostate cancer and, if they choose, undergo PSA testing.

2. At the mobile clinic

- During the 20-minute appointment, the consultant or nurse urologist will discuss symptoms, lifestyle, family history and risk factors of prostate cancer.
- Patients who choose to go ahead with the PSA test following PSA counselling will undergo testing in the same appointment.
- Patients are given a telephone results appointment before they leave the van.

3. PSA test outcomes

- Patients will receive their results within 7 to 14 days.
- Based on the PSA test result, patients will experience either one of the following:
 - Referral to their local hospital on an upgraded 62-day pathway for further investigation if they had a raised PSA.
 - Referral to the GP for further testing (e.g., other urological conditions).
 - Discharged from the pathway if the result is normal, together with a notification letter sent to their GP and a recommendation of repeating the PSA test within 5 years.
- During the results clinic that happens over the phone, consultant urologists will discuss with all patients regardless of their results.

4. In secondary care

- Further investigations would take place at each patient's local trust through an upgraded 62-day pathway.
- This would then be followed by diagnosis, prostate cancer staging and treatment, if relevant.

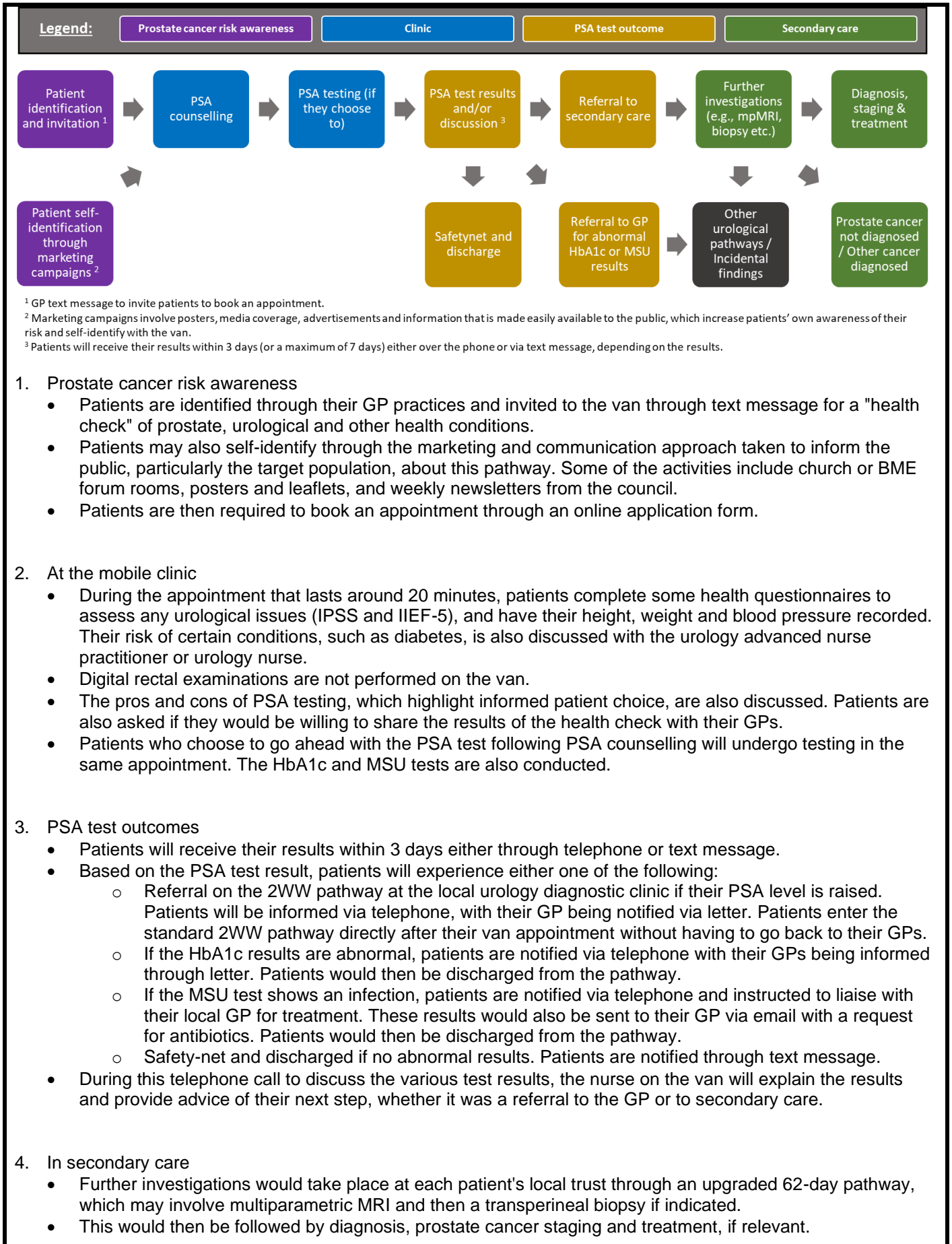
Project and resource management	Communication and engagement
<p>Staff involved:</p> <ul style="list-style-type: none"> • Project Manager Band 8a • Urology consultant grade – clinical lead • Clinical Nurse Specialist • Phlebotomist • Project Support Officer • Waiting list initiative (WLI) costs nursing/ consultant staffing <p>Staffing of the van is also dependent on staff from the trust volunteering time for the pathway. Around 25 staff regularly volunteer to support the pathway but 2 staff are usually on the van at any given time (this could be a combination of one consultant and one CNS, two CNSs or two doctors).</p> <p>Training:</p>	<ul style="list-style-type: none"> • The van itself which has clear messaging about what increases your risk of prostate cancer and a QR code and phone number to call to book an appointment or find out more • A detailed website: https://gmcancer.org.uk/this-van-can/ • A press release • An online news story featuring three men affected by prostate cancer (two black men who are prostate cancer survivors and one white man whose father died of prostate cancer) • Regular public-facing organic posts on our Facebook, Twitter and Instagram channels • A social media toolkit given out to local NHS comms leads, council comms leads, VCSE organisations and other key stakeholders e.g. councillors, GP practices, venues where the van will be stationed who posted to their communities • Paid for bus stop poster advertising near van venues • Paid for radio adverts on Legacy FM and Talk Sport (targeted at over 45s men in the Manchester area) • Paid for In Your Area digital display adverts (targeted at postcodes where the van is visiting) • A3 and A4 posters put up in doctor's surgeries, supermarkets, barber's shops, libraries and venues hosting the van • Leaflets about the van – one targeting black men with a 1 in 4 risk and one speaking about family history • Banners on railings at venues a few weeks before the van arrives in some locations

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<p>No staff training was conducted for this pathway as all staff that work on the van are medically trained urology staff.</p> <p>Other costs:</p> <p>In addition to the staff required to run the service, the pathway also included project-related costs such as communications support, admin support (NHSP) agency spending, IT equipment and mobile van costs</p>	<ul style="list-style-type: none"> • A power point slide deck for community leaders • A YouTube explainer video from the Clinical Lead for the project filmed in front of the van • Three video endorsements from the three male case studies mentioned above and two videos showing the van (one driving one, one interior and exterior) • Successful regional media coverage on BBC Radio Manchester and in local media including the Sale Messenger, News4Trafford and Salford • Further national media publicity on Channel 4's Steph's Packed Lunch TV show watched by around 200,000 viewers on average per show during a cancer special programme, a mention on the British Medical Association website and mentioned by the chair of the Health and Social Care Select Committee on Parliament TV • Raising awareness with fellow health professionals at NHS Confed in Manchester in June 2023.
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Royal Marsden Partners: Mobile van (Model 1)	
Background	Stakeholders
<p>A recent cancer data review highlighted that South-West London has the UK's highest deficit in missing 1st treatments for urological conditions and has been the slowest to recover in two-week wait (2WW) urology cancer appointments from the pandemic. Merton in South-West London also has had the lowest prostate cancer detection rates via primary care, with both Croydon and Merton having significant Black (African and Caribbean) populations and are areas with high levels of deprivation. During the pandemic, there were a number of missing cancer diagnoses with corresponding drops in 2WW cancer referrals within the local area; however, the mobile van has allowed the site to address this gap and catch up with drops in diagnosis or later-stage diagnoses of prostate cancer.</p> <p>The Royal Marsden Partners cover North-West London and South-West London. The site piloted the "Man Van" mobile service as part of this case finding pathway. The mobile van was located at Sutton, Croydon and Hammersmith, Fulham, Ealing and Brent, with around 4 to 6 weeks at one location. The van has been located at construction sites, local community centres, town halls, Chelsea football club and numerous other locations. GPs from each location were approached to target and invite patients. Patients are invited to the van if they are men and are over 45. The pathway ran from January 2023 until January 2024.</p> <p>The service aimed to be located within high-deprivation areas and high proportions of Black men, using geospatial targeting with postcodes and areas with easy public transport access.</p>	<ul style="list-style-type: none"> • The Royal Marsden NHS Foundation Trust (North-West London and South-West London urology departments) • RMP Cancer Alliance • The Institute of Cancer Research • Local GPs • Local community centres • Local councils
Delivery model	





Project and resource management	Communication and engagement
<p style="text-align: center;">Man Van Core Team proposal</p> <p>Band 7 service lead role to include:</p> <ul style="list-style-type: none"> • service delivery, logistics (including van), stakeholder engagement and feedback, coms/promo, service development, contracts (SLA for Van, maintenance checks/invoices). <p>Band 7 nursing role to include:</p> <ul style="list-style-type: none"> • Stakeholder engagement and communication / advertising • Community outreach on van <p>Staff involved:</p> <ul style="list-style-type: none"> • Urology Advanced Nurse Practitioners • Service Delivery Lead • Urology Research Fellow (3rd Year PhD) • Urology Nurse • Clinical Coordinator • Typist • Driver • Data entry/coordinator <p>Training:</p> <p>Departmental training</p> <p>Other costs:</p> <p>In addition to the staff required to run the service, the pathway also included project-related costs such as van lease costs and other associated costs (insurance, service, setting up of the van, such as Wi-Fi dongle etc.)</p>	<ul style="list-style-type: none"> • Website • GP text messages • Church forum rooms • BME forum rooms • Posters and leaflets • Weekly newsletters from the council • Company advertising to their workers. • YouTube videos for the public and companies • Media coverage through newspaper articles or interviews on national television • Social media (e.g., Twitter)

Mid and South Essex: GP-based strategy (Model 3)	
Background	Stakeholders
<p>The average number of patients diagnosed with prostate cancer monthly before COVID was 75. In the first 2 months of COVID, it dropped to under 30. In 2020 and 2021, the average numbers were 56 and 59 diagnoses per month respectively – a 21% reduction since the start of the pandemic.</p> <p>Mid and South Essex ICB has a population of around 1.2 million. It consists of 27 PCNs, with 16 PCNs initially participating in the case finding pathway. From these PCNs, 4,000 individuals were estimated to be involved in the pathway in an attempt to find the "missing men" due to the pandemic. A staggered start for the PCNs was</p>	<ul style="list-style-type: none"> • Mid and South Essex ICB • Mid Essex Alliance • South-East Essex Alliance • Basildon & Brentwood Alliance • Thurrock Alliance • Mid and South Essex PCNs

introduced to ensure services within the Trust were not overstretched during the pilot. 50% of the PCNs started first with the remaining 50% starting 3 months later. 2 PCNs, however, withdrew from the programme due to queries over the pathway. As of February 2024, 12 PCNs were involved. This pathway was first offered to patients in March 2023, with PCNs coming onboard through 2023 and as late as January 2024, with the overall programme due to end in March 2024.

- Mid and South Essex Foundation Trust (3 hospitals – Broomfield Hospital, Southend University Hospital, Basildon University Hospital)

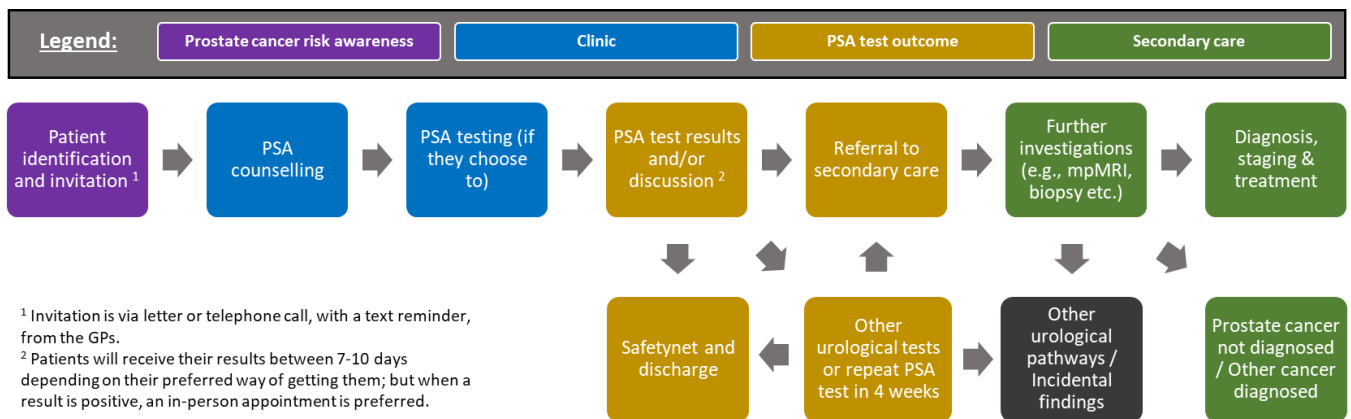
Patients are invited to their local GP clinic if they have a prostate and aged:

1. 45 and above and of black ethnic origin, or
2. Between 50 and 70 years with a family history of prostate cancer (where coded in SystmOne)

Patients who are based in deprived areas according to their LSOAs within SystmOne, and are in either of the risk factors above, are prioritised. Asylum seekers are also a population of interest from November 2023 onwards.

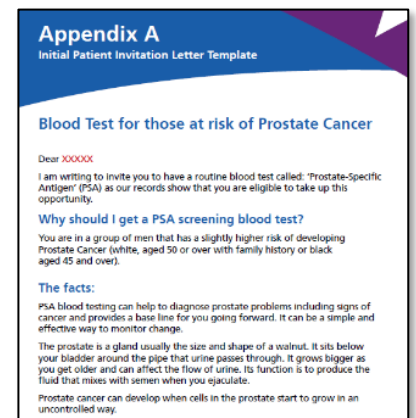
The targeted lung health checks (TLHC) programme is in place in Thurrock and Southend through the East England Cancer Alliance. The faecal immunochemical test (FIT) is also well-established across PCNs in Mid and South Essex.

Delivery model



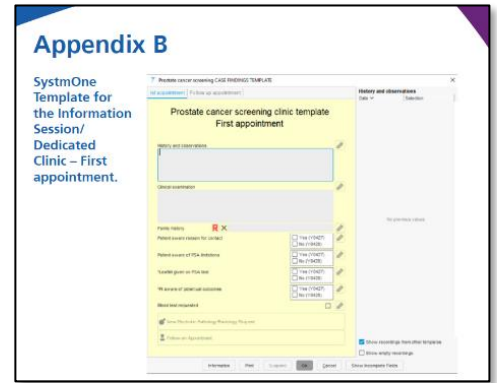
1. Prostate cancer risk awareness

- Patients are identified through SystmOne via a monthly search by each GP practice.
- Each GP or PCN are given flexibility with what approach they prefer to get in touch with patients. Patients can be contacted via telephone or sent invitation letters generated through templates available on SystmOne.
- Patients will then book their appointment directly with their GP. After an appointment is booked, automated text messages will be sent out a day before to remind patients of their appointment.
- If patients have not attended an appointment 28 days after the first invitation letter was sent, a reminder letter will be issued.



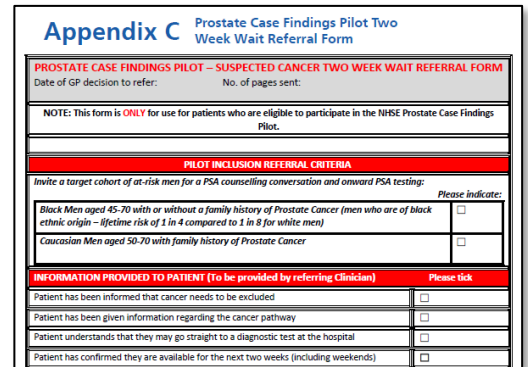
2. At the clinic

- During the appointment which lasts between 20 to 30 minutes, the clinicians will discuss the PSA test for prostate cancer, which includes the advantages and disadvantages of the test, other tests to consider if PSA is raised and considerations before going for a PSA blood test.
- Patients who choose to go ahead with the test following PSA counselling will undergo the PSA, eGFR and U&E tests.
- Patients are also asked about their preferred way of receiving their results, either over the phone, a Zoom call or face-to-face. If a test comes back positive, a face-to-face appointment is the preferred method of communication for further discussion.



3. PSA test outcomes

- Patients will receive their test results between 7 to 10 days.
- Based on the PSA test result, patients will experience either one of the following:
 - Symptomatic: Referral to the Urology 2WW pathway for further investigation based on the raised, age-specific reference range for PSA levels. Urinary tract infection would first need to be excluded (e.g., through a dipstick test) before a referral is made.
 - Asymptomatic: Referral on the 2WW pathway if PSA level is more than 10.
 - Asymptomatic: Repeat of the PSA test in 4 weeks for borderline single raised PSA level (i.e., reading of less than 10) to exclude physiological or short-term illnesses.
 - Safety net and discharge.
- Clinicians will discuss with patients on the next steps after receiving the results and develop a management plan in the follow-up clinic.
- If the patient chooses to be referred on the 2WW pathway, the prostate cancer case finding referral form will then be completed during the discussion of the results in the clinic.
- Patients are then informed of when they will hear from the hospital and what happens next to start the secondary care process.



4. In secondary care

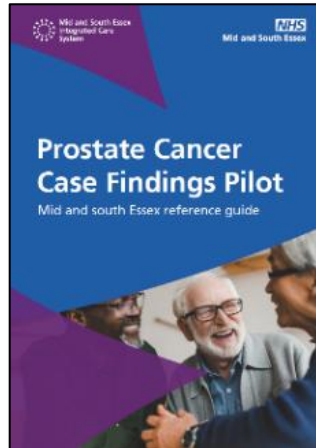
- Patients will be followed through from primary care into secondary care prostate pathways, where mpMRI and/or biopsy will be undertaken.
- Patients will follow the normal pathway within the trust following the results, and the Nurse/ GP practice notified of the patients care pathway throughout their journey.
- Patients are clinically triaged for mpMRI leading to targeted biopsy by day nine on the pathway.
- The pilot sits within 28 days to faster diagnosis pathway and aims to improve the 62-day cancer waiting times and improve outcomes and experience for patients.

Project and resource management	Communication and engagement
<p>Staff involved:</p> <ul style="list-style-type: none"> • PCN leads • Practice managers • GPs • Physician Associate • Nurses • BI Information Lead <p>Other costs:</p> <ul style="list-style-type: none"> • Follow-up/face-to-face follow-up & admin costs 	<p>The communication and engagement approach for this site was PCN-led, without a centralised ICB approach. This is because not all PCNs within the ICB are involved. If posters or marketing for the pathway were introduced on a wider scale, it may lead to confusion among patients in areas where their local practice was not involved in the pathway. Each PCN would carefully market the pathway based on its own strategies.</p>

- Capacity requirements in secondary care and costs
- Nurse training needs analysis per practice and secondary care trainers.

Training:





- Produced the Prostate Cancer Case Finding booklet (shown on the right) to train and inform PCNs and practices of the pathway. Information on the programme's risk escalation policy, a patient's case study and SystmOne reference guide are also included in the booklet.
- Individual PCN meetings for administrative staff.
- Clinician training that started with questions from the floor before diving into the booklet to answer those questions.
- Ongoing advice and guidance are available through monthly PCN meetings.
- Individual GP clinical staff meetings to walk through the governance on capturing data within SystmOne and the importance of using data.



While this may be the case, templates, such as invitation letters and text messages, are available on SystmOne to ease the implementation and communication of the pathway across PCNs. These were designed by the clinical cancer leads, cancer stewardships and the PCNs to ensure that the referral process is fit for purpose. PCNs can choose the wording and information available in these templates as part of their strategy to increase awareness and encourage men to come forward for a PSA test. Invitation letters are also sent out on a staggered basis to manage capacity at practices.

Appendix 4: Patient Survey

Relevant communication materials

<p><u>Communication guide</u></p>  <p>NECS-10163 Prostate Cancer Case Finding F</p>	<p>A4 Leaflet</p>  <p>Patient survey A4 leaflet_Final.pdf</p>	<p>A5 Leaflet</p>  <p>Patient survey A5 leaflet_Final.pdf</p>	<p>Patient survey questions</p>  <p>NECS-10163 Patient Survey_Final_Live_24.11</p>
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Findings

Breakdown of age group by site

Age group	MSE	GM	RMP	Overall
45 to 49	11.4%	6.8%	2.9%	4.8%
50 to 54	22.7%	19.2%	12.9%	15.6%
55 to 59	27.3%	20.5%	23.5%	23.0%
60 to 64	22.7%	19.2%	20.9%	20.6%
65 to 69	11.4%	22.6%	23.5%	22.2%
70 to 74	4.5%	8.2%	12.9%	10.8%
75 to 79	0.0%	3.4%	3.2%	3.0%
80 to 84	0.0%	0.0%	0.3%	0.2%

Breakdown of ethnic background by site

Ethnic background	MSE	GM	RMP	Overall
White	36.4%	51.4%	70.7%	62.1%
Black, Black British, Caribbean or African	54.5%	38.4%	18.3%	27.3%
Asian or Asian British	2.3%	3.4%	5.8%	4.8%
Mixed or multiple ethnic groups	6.8%	5.5%	2.3%	3.6%
Other ethnic group	0.0%	0.7%	1.9%	1.4%
Prefer not to say	0.0%	0.7%	1.0%	0.8%

Breakdown of family history of prostate cancer, breast cancer or ovarian cancer by site

Family history	MSE	GM	RMP	Overall
Yes	36.4%	45.9%	27.7%	33.7%
No	52.3%	44.5%	65.6%	58.3%

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Not sure	11.4%	9.6%	6.8%	8.0%
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Breakdown of employment type by site

Employment type	MSE	GM	RMP	Overall
Employed - Full time	61.4%	44.5%	38.9%	42.5%
Retired	20.5%	29.5%	37.6%	33.7%
Self-employed	11.4%	10.3%	11.6%	11.2%
Employed - Part time	0.0%	5.5%	6.4%	5.6%
Have a disability - Unable able to work	0.0%	4.1%	1.0%	1.8%
Not employed - Looking for work	2.3%	1.4%	1.3%	1.4%
Prefer not to say	4.5%	0.0%	1.3%	1.2%
Not employed - Not looking for work	0.0%	2.1%	0.6%	1.0%
Long term sick - Unable to work	0.0%	0.7%	1.0%	0.8%
Student	0.0%	1.4%	0.0%	0.4%
Other	0.0%	0.7%	0.0%	0.2%
A homemaker	0.0%	0.0%	0.3%	0.2%

Breakdown of English as the first language by site

English as first language	MSE	GM	RMP	Overall
Yes	86.4%	87.7%	87.8%	87.6%
No	13.6%	12.3%	12.2%	12.4%

Respondents' first language if it was not English



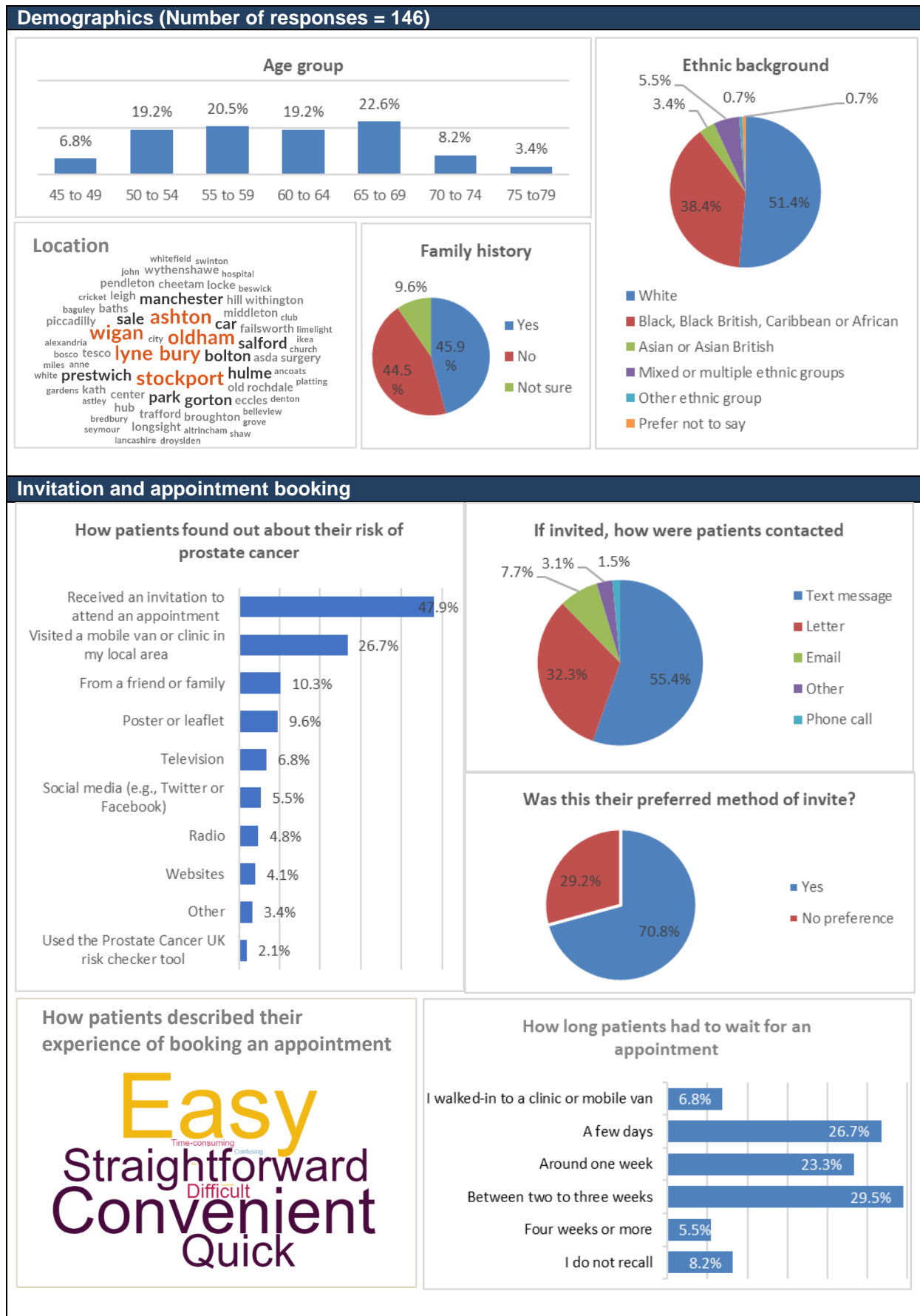
Breakdown of how results were communicated to the patients

Communication method	MSE	GM	RMP	Overall
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Text message	24.2%	6.7%	47.8%	34.1%
Telephone call	42.4%	47.0%	17.9%	28.2%
Letter	6.1%	34.3%	24.7%	26.2%
Email	9.1%	3.0%	5.8%	5.2%
Face-to-face appointment	12.1%	6.0%	1.4%	3.5%
Online/virtual appointment	3.0%	0.7%	1.7%	1.5%
Other	3.0%	2.2%	0.7%	1.3%

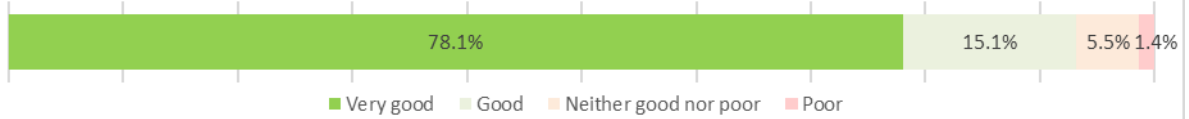
Appendix 4a: Greater Manchester patient survey findings



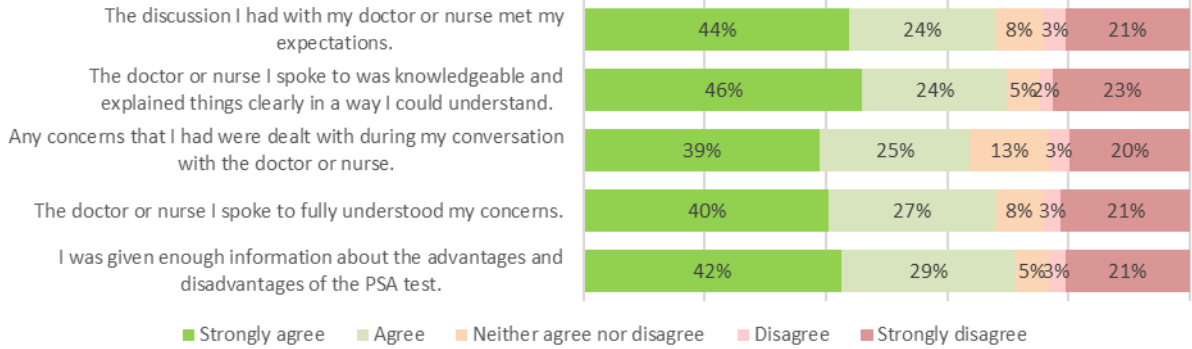
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Appointment

How were patients' overall conversation with the clinician

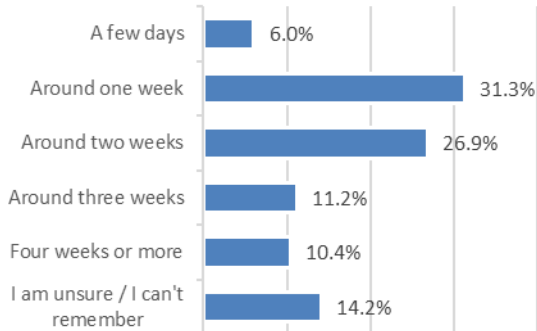


Patients' experience at their appointment

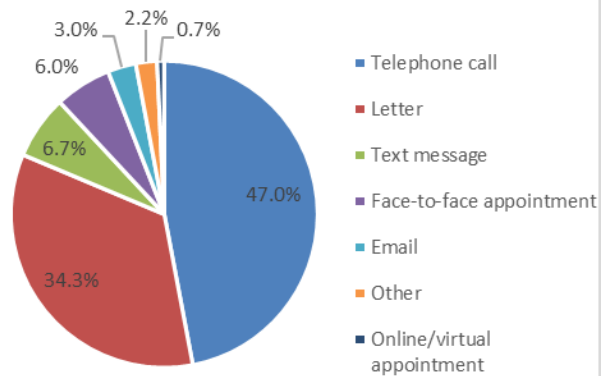


Getting the results and future intentions

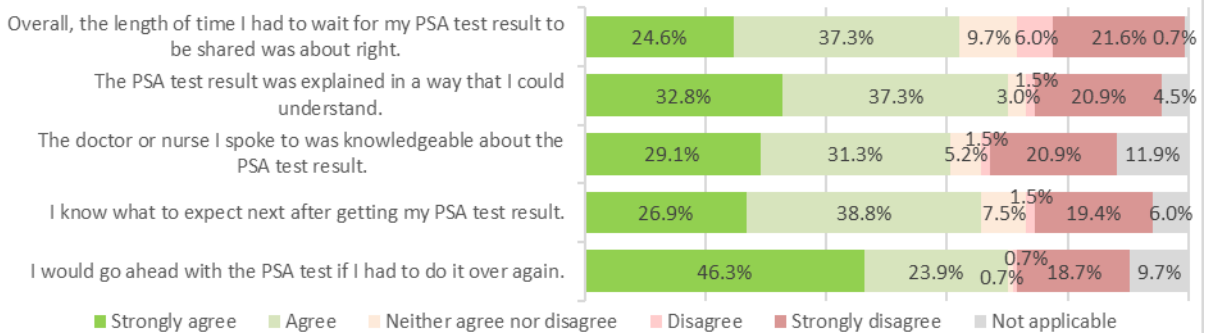
How long patients had to wait for their results



How were patients informed of their results



Patients' experience of getting their results

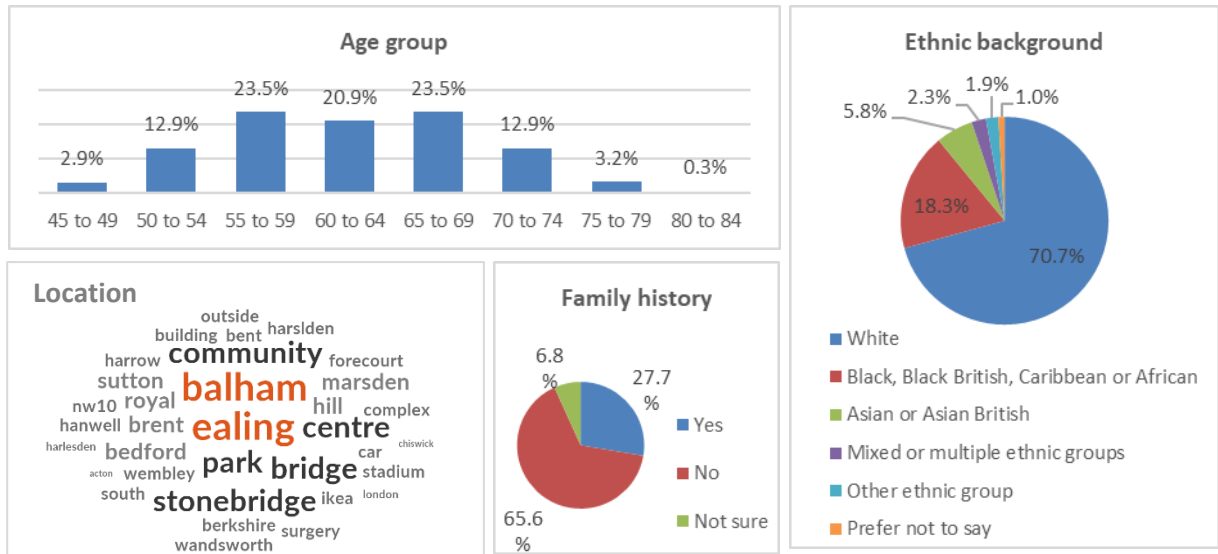


How likely would patients go through the whole process again

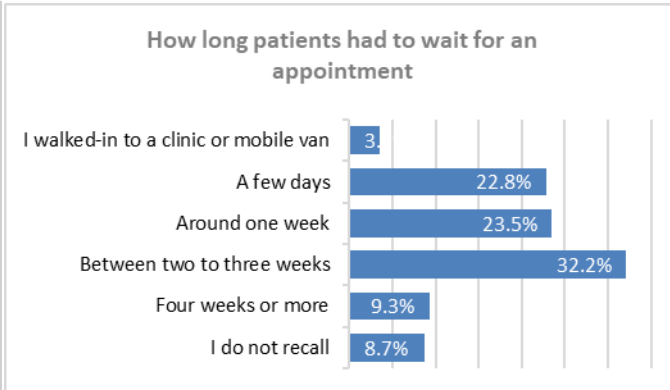
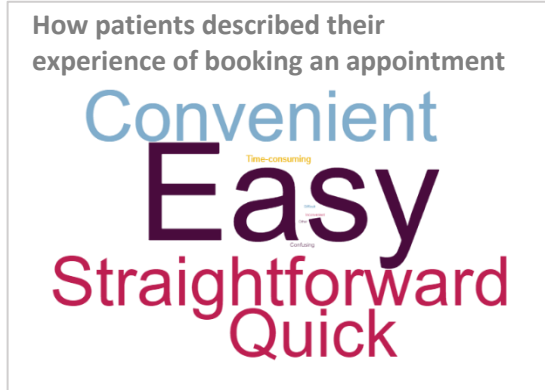
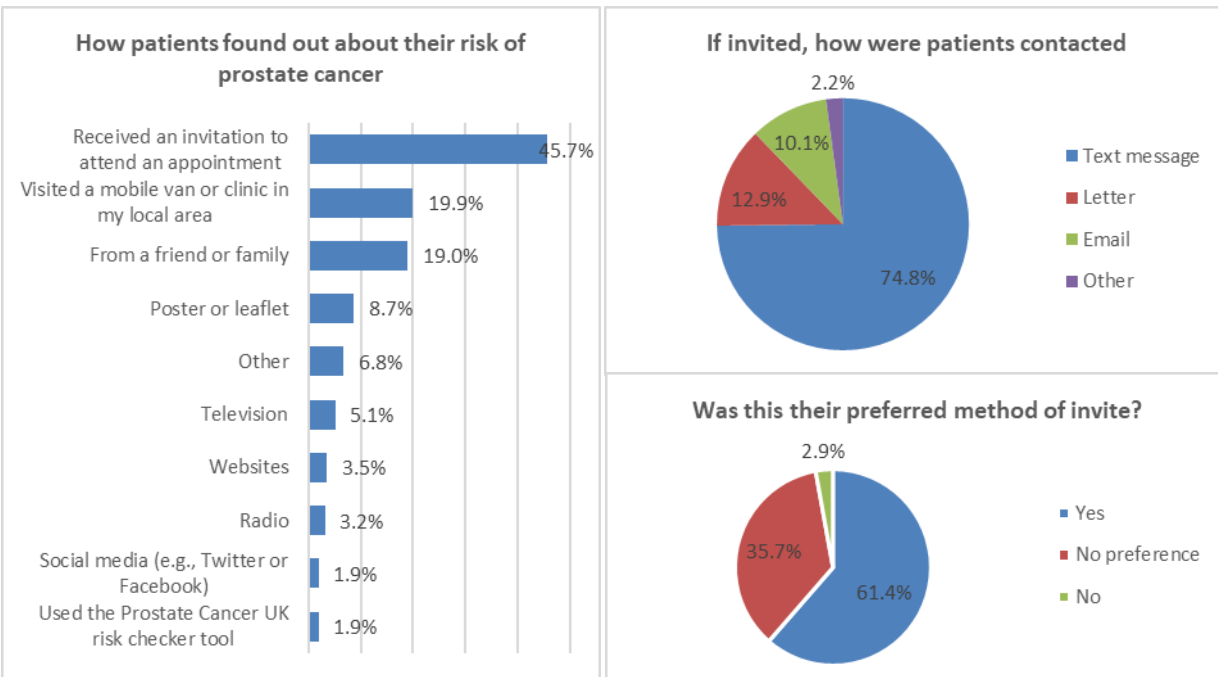


Appendix 4b: Royal Marsden Partners patient survey findings

Demographics (Number of responses = 311)

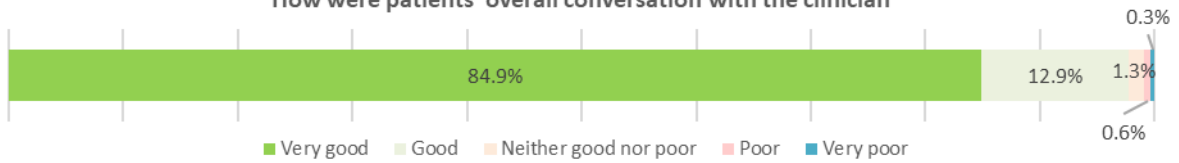


Invitation and appointment booking

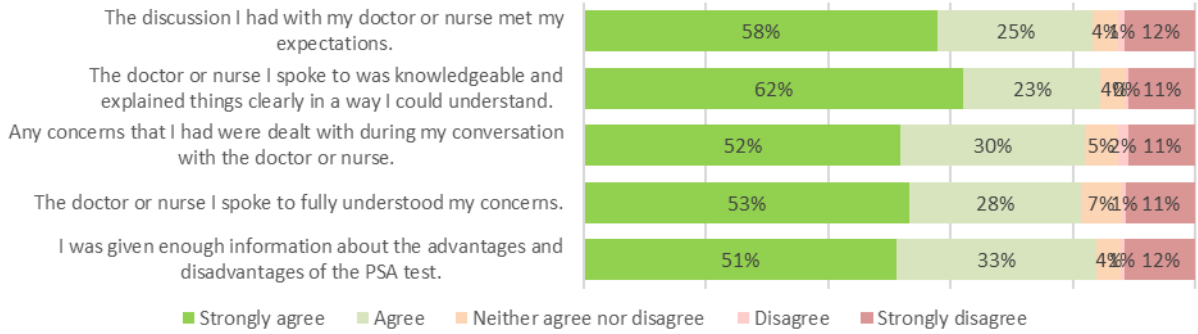


Appointment

How were patients' overall conversation with the clinician

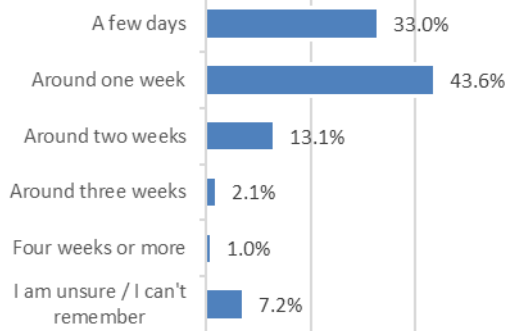


Patients' experience at their appointment

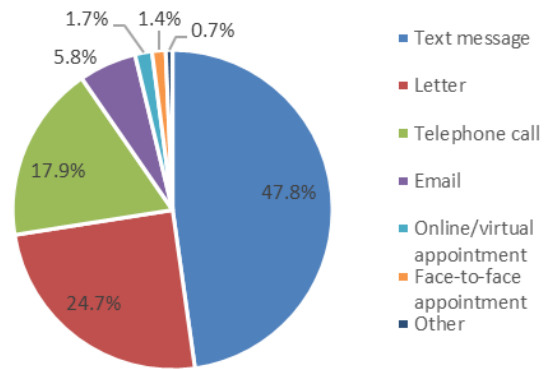


Getting the results and future intentions

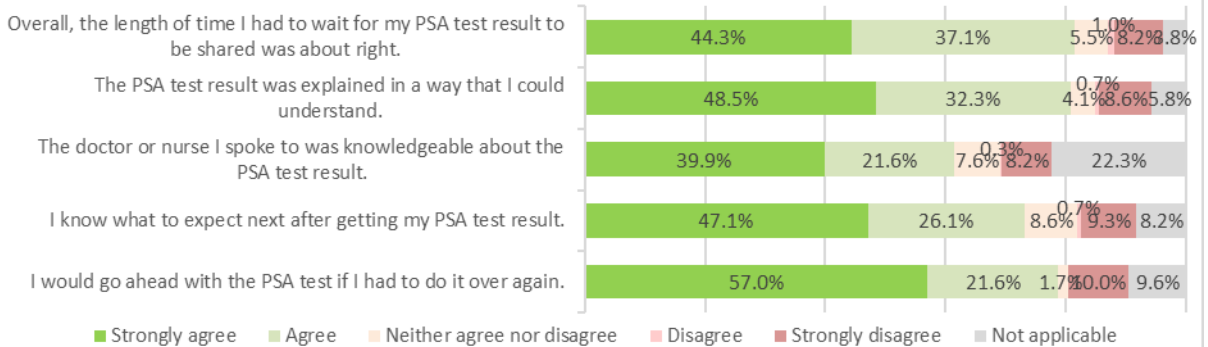
How long patients had to wait for their results



How were patients informed of their results



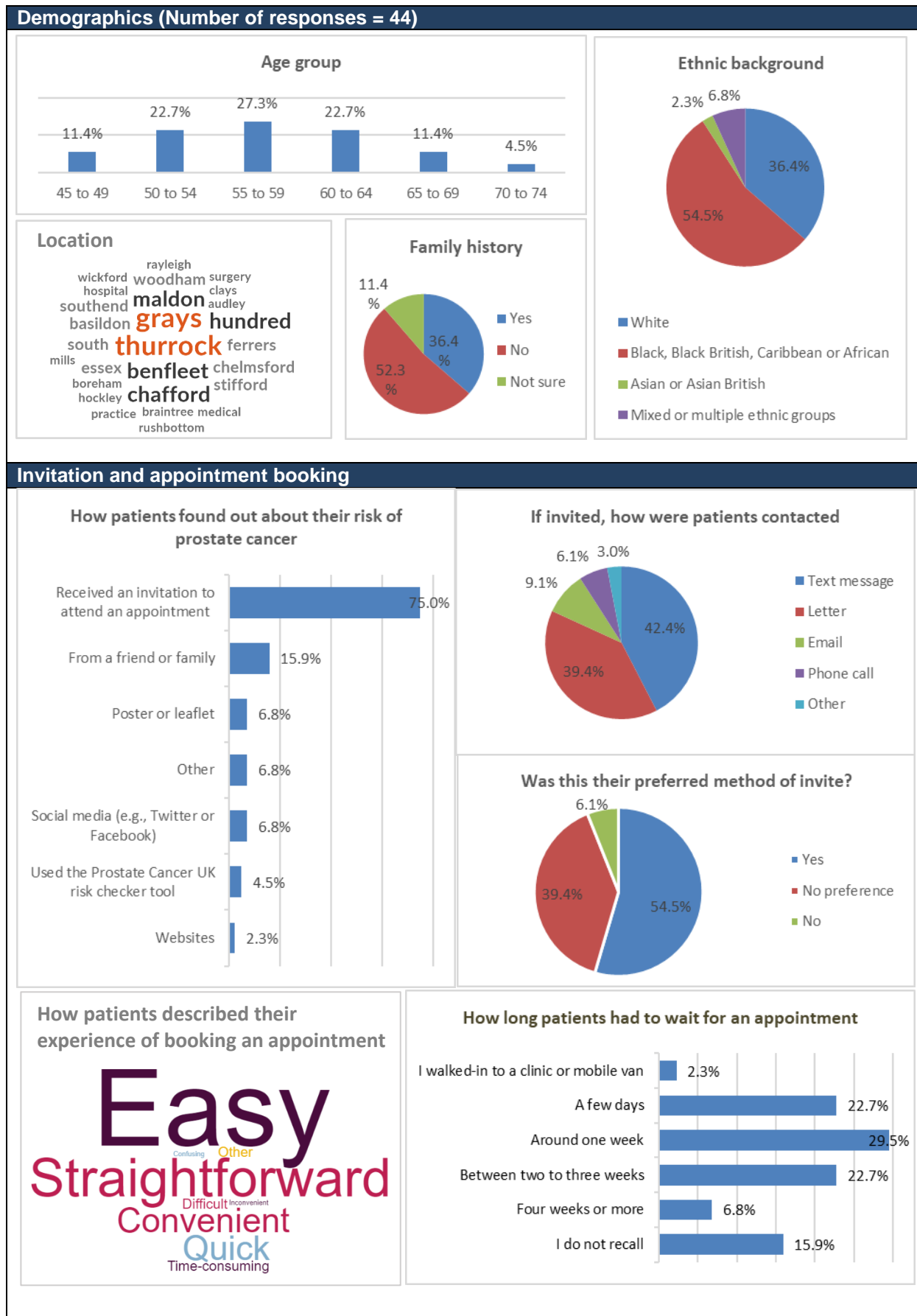
Patients' experience of getting their results



How likely would patients go through the whole process again



Appendix 4c: Mid and South Essex patient survey findings



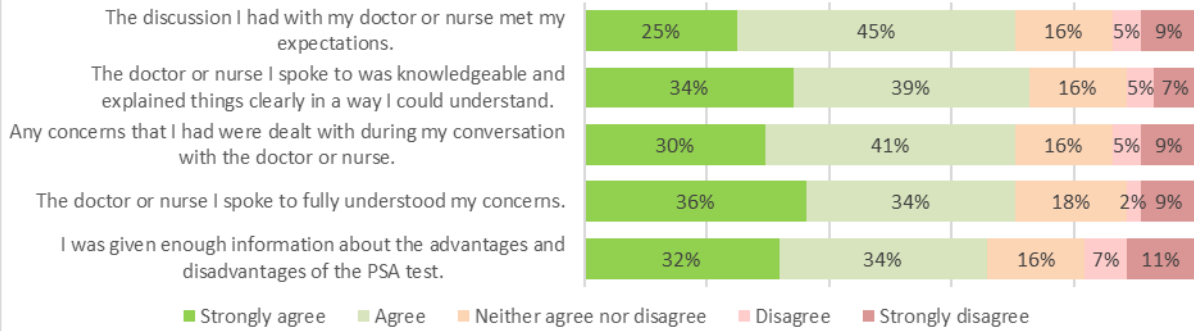
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Appointment

How were patients' overall conversation with the clinician

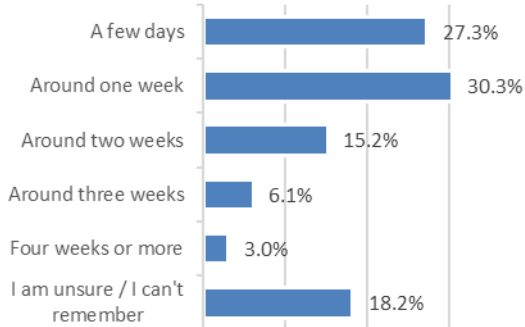


Patients' experience at their appointment

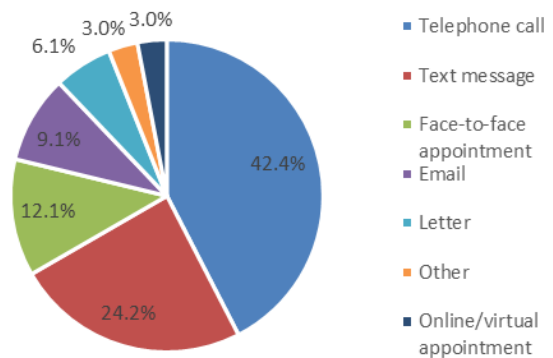


Getting the results and future intentions

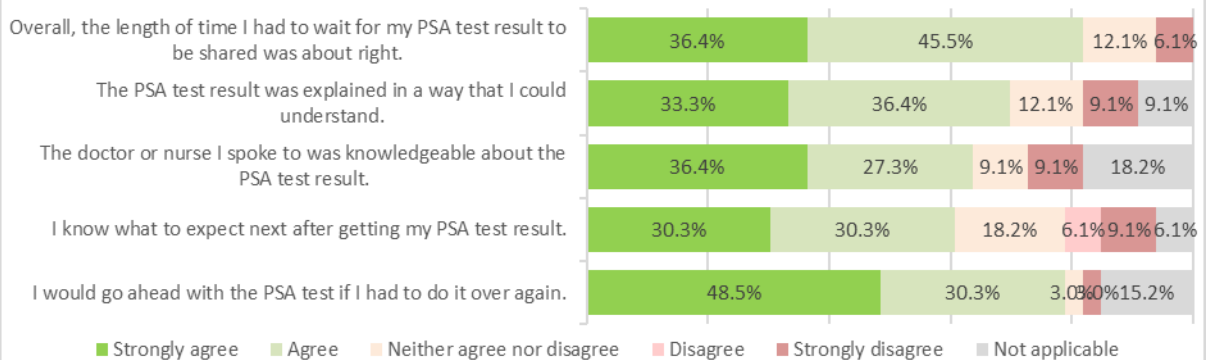
How long patients had to wait for their results



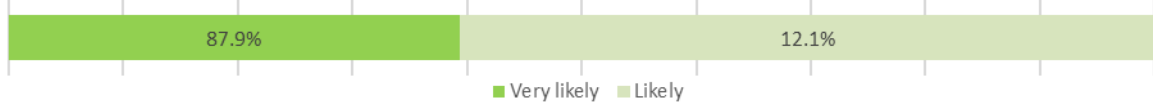
How were patients informed of their results



Patients' experience of getting their results



How likely would patients go through the whole process again





Appendix 5: Patient interviews

Participant information

Number	Site	Age group	Ethnic group	Family history	PSA Outcome
P001	MSE	65 to 69	White	Yes	Safety netted & Discharged
P005	GM	60 to 64	Black, Black British, Caribbean or African	No	Safety netted & Discharged
P007	GM	55 to 59	White	Yes	Safety netted & Discharged
P011	GM	60 to 64	Black, Black British, Caribbean or African	No	Safety netted & Discharged
P020	GM	75 to 79	White	Yes	Safety netted & Discharged
P023	GM	55 to 59	Black, Black British, Caribbean or African	Yes	Safety netted & Discharged
P026	GM	45 to 49	Black, Black British, Caribbean or African	Yes	Safety netted & Discharged
P027	GM	65 to 69	White	Yes	Safety netted & Discharged
P035	GM	50 to 54	White	Yes	Safety netted & Discharged
P038	GM	75 to 79	White	Yes	Safety netted & Discharged
P041	MSE	50 to 54	White	Yes	Safety netted & Discharged
P043	MSE	60 to 64	Black, Black British, Caribbean or African	No	Safety netted & Discharged
P046	MSE	45 to 49	Black, Black British, Caribbean or African	No	Safety netted & discharged
P052	GM	50 to 54	White	Not sure	Referred to secondary care
P064	GM	60 to 64	Black, Black British, Caribbean or African	No	Safety netted & Discharged
P070	RMP	70 to 74	White	Yes	Safety netted & Discharged
P071	RMP	55 to 59	White	No	Safety netted & Discharged
P072	RMP	60 to 64	White	No	Safety netted & Discharged
P078	RMP	55 to 59	White	No	Referred to secondary care
P084	RMP	65 to 69	White	No	Safety netted & Discharged
P091	RMP	55 to 59	Black, Black British, Caribbean or African	Not sure	Safety netted & Discharged
P101	RMP	65 to 69	White	Yes	Referred to secondary care
P103	RMP	65 to 69	White	Yes	Referred to secondary care
P110	RMP	55 to 59	White	Yes	Referred to the GP
P116	RMP	60 to 64	White	Yes	Referred to secondary care
P149	RMP	60 to 64	White	Yes	Referred to secondary care
P169	MSE	65 to 69	White	Yes	Safety netted & Discharged
P194	RMP	50 to 54	Black, Black British, Caribbean or African	No	Safety netted & Discharged
P202	RMP	65 to 69	White	Yes	Safety netted & Discharged
P204	MSE	50 to 54	Mixed or multiple ethnic groups	Yes	Safety netted & Discharged
P205	MSE	50 to 54	White	Yes	Safety netted & Discharged
P206	MSE	70 to 74	White	No	Referred to secondary care
P209	MSE	55 to 59	Mixed or multiple ethnic groups	No	Safety netted & Discharged
P217	MSE	50 to 54	Black, Black British, Caribbean or African	No	Safety netted & Discharged

Relevant materials

Topic guide	Information sheet
 <p>NECS10163 Patient Interview Topic Guide</p>	 <p>NECS10163 Participant Information</p>

Appendix 6: Staff focus groups/interviews



Participant information

ID	Site	Position / Job Title	Mobile Van/ Primary Care/ Secondary care	Patient identification and invitation	Booking of patient appointments	PSA counselling	PSA testing	Informing patients of their PSA result	Secondary care: Further testing	Secondary care: diagnosis and treatment	Programme management	Implementation learning?
S01	RMP	CNS	Mobile Van	/		/	/	/				
S02	RMP	Urologist	Mobile Van			/		/			/	Yes
S04	RMP	Nurse	Mobile Van			/	/	/	/			
S05	RMP	Man Van Clinical Nurse Specialist	Mobile Van	/		/	/	/				
S06	RMP	service manager	Mobile Van								/	Yes
S07	GM	Consultant Urologist	Mobile Van									
S08	GM	Phlebotomist	Mobile Van									
S09	GM	CSW	Mobile Van	/								
S10	GM	Urology CNS and Lead nurse for this project	Mobile Van				/	/	/		/	Yes
S11	GM	Data Quality Service Team Leader	Mobile Van	/		/		/	/	/		
S12	GM	Project Support Officer, Primary Care and Early Diagnosis	Mobile Van	/	/		/					
S14	GM	MDT Co-Ordinator	Secondary care	/								
S15	RMP	ANP	Secondary care			/	/	/				
S17	RMP	Uro-Oncology Nurse Consultant	Secondary care	/	/	/	/	/	/	/		
S18	MSE	GP, AEGROS	Primary care	/	/							
S19	MSE	Physician Associate, Benfleet	Primary care				/					
S21	GM	Urologist	Secondary care			/						
S22	MSE	GP, Wickford	Primary care			/	/	/				
S24	MSE	GP partner /pcn CD, AEGROS	Primary care	/								
S26	GM	project manager	Mobile Van								/	Yes
S27	RMP	Clinical Business Unit Manager	Mobile Van	/	/		/				/	Yes
S28	MSE	Senior Primary Care Oversight and Assurance Manager, ICB	Primary care			/	/	/	/	/	/	Yes
S29	MSE	Clinical Systems, Arden & Gem CSU	Primary care							/		Yes
S30	MSE	Primary Care Cancer Lead ICB	Primary care						/	/		Yes



ID	Site	Position / Job Title	Mobile Van/ Primary Care/ Secondary care	Patient identification and invitation	Booking of patient appointments	PSA counselling	PSA testing	Informing patients of their PSA result	Secondary care: Further testing	Secondary care: diagnosis and treatment	Programme management	Implementation learning?
S31	MSE	Essex BI Information Lead, Arden & Gem CSU	Primary care					/				Yes
S32	MSE	urology CNS	Secondary care		/							
S33	MSE	Lead Urology Oncology CNS	Secondary care									
S34	GM	Consultant urologist	Mobile Van					/	/	/	/	Yes

Note: Some staff were involved in both the staff experience and programme implementation focus groups.

Relevant materials (Staff experience)

<p>Topic guide</p>  <p>NECS10163 Clinical Staff Focus Group & I</p>	<p>Information sheet</p>  <p>NECS10163 Participant Informatio</p>
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Relevant materials (Programme implementation experience)

<p>Topic guide</p>  <p>NECS10163 Implementation Focus</p>	<p>Information sheet</p>  <p>NECS10163 Participant Informatio</p>
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Appendix 7: Patient data – Minimum dataset specification



Prostate_Minimum
Data Specification.xls