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National Cancer Registration and Analysis Service

Be Clear on Cancer: Prostate Cancer Awareness Local Pilot Campaign 2014

Final evaluation results

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Public Health England (PHE)
National Cancer Registration and Analysis Service (NCRAS)
Be Clear on Cancer: Prostate cancer awareness local pilot campaign 2014

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Note: Structure of report

This report has been written with a wide range of audiences in mind and includes many sets of individual results and analyses. If read in full, it is very long. It has therefore been divided into clear sections, not all of which will be of interest to every reader. The Executive Headlines summarise all the major findings, followed by the main body of the report which gives details of individual results and discusses the extent of campaign impact within the context of the overall patient pathway.

NCRAS also provides a separate paper, Be Clear on Cancer evaluation metrics: methodology, which may be of interest as a reference source to some readers.

1. Executive summary

Prostate cancer is the most common cancer in men in England, with 49,810 men diagnosed in 2018[1]. Early prostate cancer usually has no symptoms, but screening with prostate specific antigen (PSA) is controversial, as elevated PSA levels do not necessarily indicate the presence of prostate cancer while low PSA levels do not always equate to the absence of prostate cancer [2]. Black men are often regarded as a group who are 'hard to reach' in the context of cancer awareness [3], with several studies [4-7] reporting that black men were less likely to undergo PSA testing than white men despite having a higher risk of prostate cancer.

The objective of the Be Clear on Cancer (BCoC) prostate cancer awareness local pilot campaign was to raise awareness of the risk of prostate cancer among black men over the age of 45 years. The campaign ran from 20 October 2014 to 23 November 2014 in six London boroughs (Hackney, Haringey, Lambeth, Lewisham, Newham and Southwark).

The campaign's core message was:

> **'1 in 4 black men will get prostate cancer. Prostate cancer often has no obvious symptoms. If you are a black man over 45 and want to discuss your personal risk of prostate cancer, visit your GP'**.

This message was delivered through a combination of community events and advertising materials.

The following summarises the main findings from the campaign.

1.1. Campaign recognition and public awareness

The campaign helped to spread awareness of prostate cancer among black men as evidenced by increased awareness of the higher risk for black African and Caribbean men, between those who participated in pre- and post-campaign surveys.

1.2. Urgent GP referrals for suspected cancer

Between November to December 2012 and November to December 2014, there was a statistically significant 42% increase in urgent GP referrals for suspected cancer for men (mainly in men aged under 45 and aged 45 to 64) within the local pilot campaign area, however there was a much larger corresponding increase in the control area of

71%. The local prostate cancer awareness campaign had no demonstrable effect on urgent GP referrals for suspected cancer.

1.3.   Cancer diagnoses resulting from an urgent GP referral

The number of prostate and urological cancer diagnoses resulting from an urgent GP referral for suspected urological cancer were higher in November to December 2014 than in November to December 2012, in both the local pilot campaign area and the control area; however, in the local pilot campaign area, the 19% increase in prostate cancer and 12% increase in urological cancer diagnoses were not statistically significant. These increases were also smaller than the statistically significant increases in the control area. These results indicate that the campaign did not have an impact on the number of diagnoses resulting from an urgent GP referral for suspected urological cancer.

1.4.   Conversion rate[1]

Between November to December 2012 and November to December 2014, there were small non-statistically significant decreases in the prostate and urological cancer conversion rates for urgent GP referrals for suspected urological cancer. The changes were similar for both local pilot campaign and control areas. There was no evidence that this campaign had an impact on the prostate or urological cancer conversion rates.

1.5.   Cancer diagnoses recorded in the CWT database

For the local pilot campaign and control areas, there were no statistically significant changes in the number of prostate cancer and urological cancer diagnoses recorded in the CWT database between December 2012 to January 2013 and December 2014 to January 2015. There was no evidence that the campaign had an impact on the number of prostate or urological cancer diagnoses recorded in the CWT during the analysis period.

1.6.   Detection rate[2]

In the local pilot campaign area, comparing December 2012 to January 2013 and December 2014 to January 2015, there were no statistically significant changes in the detection rate for prostate or urological cancer. In contrast, the detection rates

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[1] Conversion rate – the percentage of urgent GP referrals for suspected urological cancer, which result in a diagnosis of urological cancer
[2] Detection rate – the percentage of Cancer Waiting Times database-recorded urological cancer diagnoses which resulted from an urgent GP referral

increased in the control area by a statistically significant 22% for prostate cancer, and 19% for urological cancer, though with wide month-to-month variation.

There was no evidence that the local prostate cancer awareness campaign had any impact on the detection rates for the campaign area.

1.7.   Emergency presentations

In the local pilot campaign area 479 men diagnosed with prostate cancer who were admitted to hospital in 2013-14 and 37 (7.7%) were diagnosed through emergency presentation. In 2014-15 there were 516 and 46 (9.0%) respectively. Overall, there were no significant differences in the proportions of prostate cancers diagnosed via emergency presentation for the local pilot campaign area in 2014 compared with 2013.

1.8.   Cancer incidence

There were no sustained periods where the numbers of prostate cancers were the same as or higher than the 2014 to 2015 median and the campaign does not appear to have had an impact on the number of prostate cancers diagnosed in the campaign area; however, there was wide week-to-week variation in new diagnoses which makes it more challenging to draw conclusions.

1.9.   Early stage at diagnosis

The local prostate campaign may have had an impact on the proportion of prostate cancers diagnosed at an early stage, because the proportion of early stage prostate cancer was the same as or higher than the 2014 to 2015 median for weeks 1 to 5 of 2015, with an additional 8 cases diagnosed at an early stage compared with the expected number based on the median (46 cases). However, caution should be applied as these results are based on small numbers.

1.10.   Diagnostics in secondary care

Comparing the months November 2014 to January 2015 with November 2013 to January 2014, there was a 9.6% decrease in the total number of ultrasounds, CT scans and MRIs performed for those aged 50 years and over in the pilot area, and a 9.1% decrease for all ages. However, these changes were not statistically significant.

1.11.   One-year survival rates

There were no statistically significant differences in one-year survival for men aged 50 and over diagnosed with prostate cancer between the analysis period (November 2014 to January 2015) and the comparison period (January 2014 to October 2015).

1.12.   Overall conclusions

There was evidence that the campaign was successful in raising awareness of prostate cancer among black men. However, overall there was very little evidence that the campaign had an impact on improving clinical outcomes for men subsequently diagnosed with prostate cancer.

This was a local pilot campaign aimed at a portion of the community, hence to some extent it would be surprising if it had led to a significant change in clinical metrics. However, it remains plausible that changes to behaviour or outcome in the black population could be masked within the results since most metrics relate to the much larger group of all ethnicities.

2. Background to the campaign

2.1. Attitudes to testing for prostate cancer in black men: What is already known

Black men are often regarded as a group who are 'hard to reach' [3]. There are a substantial number of studies describing attitudes to prostate-specific antigen (PSA) testing for prostate cancer, however they mostly describe the black population in the USA [8-13]. Hence the knowledge available may not reflect the attitudes of black men in the UK, although two UK studies did not suggest widely different results [14, 15]. A meta-analysis [16] from 2012 included 33 studies and described personal, social and cultural factors which influenced awareness and willingness to be tested for prostate cancer. They found poor knowledge of prostate cancer in all men but more so in black men.

Several studies [4-7] reported that black men were less likely to be tested than white men although this was not seen in more recent studies [17, 18]. College (university) education [19, 20] and income [21] were predictors of testing, while increasing age [17] predicted a low intention to be tested. In the past black men seemed to be less willing to be tested despite having a higher risk of prostate cancer [22], however that appears to be changing.

2.2. Strategies to influence testing in black men

Several studies used a range of educational methods relating to prostate cancer in black men, they generally found that attitudes could be changed and in particular the intention to be tested [15, 23-26]. However, there was a more limited effect on the proportion of men attending for a test. A UK study described a bespoke community prostate clinic in Newham where 40% of attendees were black and the clinic improved knowledge in the majority of men. The study found that half of symptomatic men had not consulted their GP, and 98% of men accepted examination. 18% of 328 attendees were referred to secondary care and 3% were found to have prostate cancer [24].

These studies show a clear rationale for the BCoC campaign designed to target black men. They have a higher risk of prostate cancer and are less willing to be tested spontaneously. There is evidence to support this approach, showing that intervention can change attitudes and perhaps behaviour.

2.3.   Local prostate cancer awareness campaign

The BCoC prostate cancer awareness local pilot campaign ran from 20 October 2014 to 23 November 2014 in six London boroughs including Hackney, Haringey, Lambeth, Lewisham, Newham and Southwark (collectively referred to as the 'campaign area'). The core campaign message was:

'1 in 4 black men will get prostate cancer. Prostate cancer often has no obvious symptoms. If you are a black man over 45 and want to discuss your personal risk of prostate cancer, visit your GP'.

The campaign was developed in partnership with Prostate Cancer UK and used some of the Prostate Cancer UK materials (for example, the leaflet), and incorporated the look and feel of their design into other materials, such as the posters.

The campaign was delivered mainly through face-to-face activity, with a specialist marketing street team visiting targeted shopping streets, mosques and churches. This team also attended eight community-based events such as Black History Month celebrations, comedy shows and a presentation at a mosque. This was supported by community messaging on local radio and out-of-home advertising which comprised 160 roadside posters, 'six sheet' posters (bus stop size 1.2 x 1.8 M) in relevant postal areas, 60 barber shop panels (A2 size) in relevant London boroughs and 40 railway station 'six sheet' posters in relevant postal areas. Examples of the campaign materials can be seen in Figure 1.

Figure 1: Examples of promotional materials used during the local prostate cancer awareness campaign

3. Prostate Cancer

3.1.   Background to the problem

Prostate cancer is the most common cancer in men in England; 49,810 men were diagnosed in 2018[1] and 10,146 men died from it in 2017[28]. The incidence has risen markedly over the last 40 years due to population ageing and increased detection of disease – which in turn is partly due to the rise in use of transurethral resection of the prostate (TURP) but latterly Prostate Specific Antigen (PSA) testing. The incidence of prostate cancer rises markedly in those aged 65 and over (Figure 2).
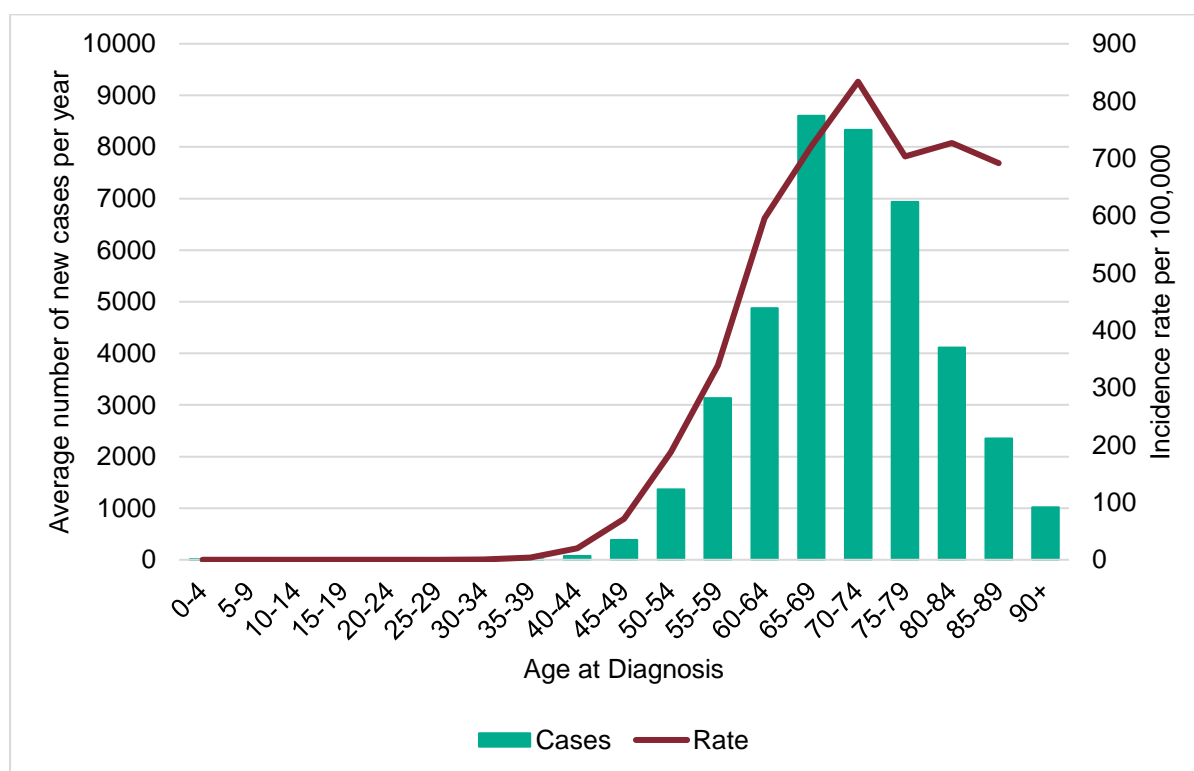
Source: NCRAS – CancerData

Figure 2: Average number of new cases per year of prostate cancer and incidence rate per 100,000 by age group, in England, 2015-2017

Age-standardised one-year survival was 97% for patients diagnosed with prostate cancer between 2013 and 2017 in England[29]. In continental Europe the EUROCARE 5 study[30] revealed that for Northern Central and Southern Europe one-year survival was in the range of 86-92% in 2005-2007; at that time age-standardised survival in the UK and Ireland was 86%. It is likely that the improvements seen are due to increasing diagnosis of stage 1 and 2 disease using PSA testing. The number of men presenting for PSA testing with asymptomatic disease will influence the stage at diagnosis for a population. For most patients, prostate cancer has a

long trajectory; even locally advanced disease has a 10-year survival around 70% [31]. Early prostate cancer usually has no symptoms but screening with PSA is controversial. Screening studies demonstrate improved survival in a large European study [32] but no effect in a larger UK study[2]. It is not likely that small improvements in time to presentation will improve survival in such patients. Whereas, for patients with advanced prostate cancer, earlier presentation and hence earlier treatment may result in fewer complications [33] and may allow treatments such as chemotherapy [34] to be delivered before patients deteriorate and hence improve survival.

3.2. Risk Factors

Established risk factors for prostate cancer include age, ethnicity, obesity, family history and genetic predisposition (for example BRCA-2). Age is a strong risk factor; peak incidence rate is between 70 and 74 years (Figure 2). Prostate cancer is twice as common in black men compared with white men in the UK [14, 35] and USA [36] while men of Asian descent have a lower incidence [35]. Survival following prostate cancer is similar across ethnic groups. Obesity is associated with an increased incidence of aggressive prostate cancer and poorer treatment outcomes [37, 38]. It is unclear whether these effects can be reduced by weight loss. Family history is associated with a higher incidence of prostate cancer (perhaps due to increased PSA testing) but most studies suggest that there is no survival difference [39, 40] compared with those without a family history. Specific genetic defects (BRCA-2) are associated with an increased risk of high-grade cancer and hence a more aggressive disease [41, 42].

3.3. Epidemiology by ethnicity

The following tables show the risk of prostate cancer and population data for both black men and all ethnicities for the population of England.

Table 1 shows that 3% of men in England identified themselves as black compared with 22% in the local pilot campaign area. Only 2% of men in England aged 45 and over identified themselves as black.

Table 1: Number and proportion of male population in black ethnic group by age

| Ethnicity | Area and age group | | | |
| | All ages | | Aged 45+ | |
	BCoC local pilot area	England	BCoC local pilot area	England
Black	185,184	888,185	47,114	217,376
All ethnicity	837,085	26,069,148	212,271	10,491,211
Black as % of all in area	22%	3%	22%	2%

Source: 2011 Census data, Office for National Statistics

Black men accounted for 33% of prostate cancer diagnoses in the campaign area, compared with 3% across England (Table 2).

Table 2: Number and proportion of prostate cancer cases diagnosed in December 2014 to February 2015, by black ethnic group, in England and the local pilot area

	BCoC local pilot area	England
Black	62	276
All ethnicities	188	9,870
Black as % of all in area	33%	3%

Source: NCRAS

Cancers are classified by stage numbers from 1 to 4. The lower stage numbers (1 and 2) indicate the least advanced cancers, and higher stage numbers indicate more advanced cancers. When there is not enough information regarding the extent of a cancer, it is not possible to accurately allocate it to a stage group; these cancers are then referred to as 'unknown stage'.

In 2015 the number of prostate diagnoses in black men, although relatively small (1,216 cases in England) showed statistically significant differences by stage compared with all other ethnicities There is some evidence that black men may be more likely to present with stage 1 or 2 (early stage) prostate cancer than the overall population (Table 3).

Table 3: Prostate cancer cases by stage at diagnosis for relevant ethnic groups in 2015, England

		Stage at diagnosis					
		1	**2**	**3**	**4**	**Unknown**	**Total**
Black	number	414	318	203	179	102	1,216
	%	34%	26%	17%	15%	8%	100%
All ethnicities	number	12,458	8,055	7,955	7,783	4,074	40,325
	%	31%	20%	20%	19%	10%	100%

Source: NCRAS

There are clear differences by ethnicity on the Route to Diagnosis [43] that a patient takes through the healthcare system before receiving a diagnosis of cancer (Table 4). The proportion presenting as an emergency are similar for all ethnic groups. White men (37%) are more likely to be diagnosed via a Two Week Wait referrals for suspected cancer than black (35%) or Asian (31%) men. As a result, fewer white men (39%) than black men (45%) are diagnosed after a routine GP referral (column 3, Table 4). These factors are likely to be explained by a combination of patient and GP behaviour.

Table 4: Routes to diagnosis for prostate cancer for ethnic groups 2006-2016, England

Ethnicity	Route to Diagnosis							Number of cases
	Two Week Wait[3]	GP referral	Another Outpatient	Inpatient Elective	Emergency presentation	Death Certificate Only	Unknown	
Asian	31%	46%	10%	2%	8%	0%	3%	6,169
Black	35%	45%	9%	2%	8%	0%	2%	12,309
Chinese	33%	44%	9%	2%	8%	0%	4%	490
Mixed	37%	42%	9%	1%	7%	0%	3%	1,424
White	37%	39%	10%	2%	9%	0%	3%	362,720
Other ethnic group	36%	40%	10%	2%	8%	0%	5%	2,921
Unknown	34%	30%	6%	2%	6%	1%	20%	21,912

Source: NCRAS

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[3] Two Week Wait refers to urgent GP referral with suspected urological cancer

4. Evaluation metrics

The campaign was evaluated using both qualitative and quantitative research methods. Qualitative methods were used to assess the impact of the campaign on public awareness and recognition of the campaign, and public knowledge of prostate cancer risk.

The quantitative outcome measures used to assess the impact of this campaign were derived from routinely collected national datasets (Table 5). This had the advantage that a bespoke data collection system, involving a risk of incomplete data and increased cost, was not required. The disadvantage of this approach is a lack of specificity of the derived data to the population studied. Firstly, the data relates to all ethnicities and not the target black population; the outcome metrics analysed in this chapter were therefore not stratified by ethnicity. Secondly, in some of the datasets (for example the number of urgent GP referrals for suspected cancer), prostate cancer is not recorded separately from other urological cancers.

4.1.   List of evaluation metrics

The evaluation of the prostate cancer awareness local pilot campaign is based on the metric analyses defined in Table 5. The ICD10 codes listed in this table are the international standard diagnostic classification system for all general epidemiological and many health management purposes[44].

A full definition and explanation of all metrics, along with details of methodology used, can be found in the National Cancer Registration and Analysis Service Be Clear on Cancer evaluation metrics: methology document[45]. Where appropriate, 95% confidence intervals are included in some charts.

Table 5: List of campaign evaluation metrics and their descriptions

Metric	Description	Codes used
Campaign recognition and public awareness	Public awareness and recognition of the campaign and public knowledge of prostate cancer risk	N/A
Cancer Waiting Times Database (CWT) data:		
Urgent referrals	Number of urgent GP referrals for suspected urological cancers, also known as Two Week Wait referrals	ICD-10 C60-61, C63-68
Cancer diagnoses resulting from urgent referrals	Number of urological cancer diagnoses resulting from an urgent GP referral for suspected urological cancer, also known as Two Week Wait cancers, 62-day waits and 62-day cancers	
Conversion rates	Percentage of urgent GP referrals for suspected urological cancer resulting in a diagnosis of urological cancer	
Diagnoses in CWT database	Number of urological cancer diagnoses recorded in the CWT database, also known as CWT cancers, 31-day waits and 31-day cancers	
Detection rates	Percentage of urological cancer diagnoses recorded in the CWT database, which resulted from an urgent GP referral for suspected urological cancer	
Emergency presentations	Proportion of men diagnosed with prostate cancer who first presented as an emergency	ICD-10 C61
Diagnostics in secondary care (DID)	Number of imaging tests, including ultrasound, CT scan and MRI tests, for suspected prostate cancer and other medical conditions	NICIP and SNOMED (see appendix)
New cancers diagnosed or incidence	Number of prostate cancers diagnosed during and following the campaign period	ICD-10 C61
Stage at diagnosis	Proportion of prostate cancers diagnosed at an early stage (at Stage 1 or 2)	ICD-10 C61
One-year survival	One-year survival for male patients aged 50 years and over with their first prostate cancer diagnosed during and following the campaign period	ICD-10 C61

4.2. Campaign recognition and public awareness

4.2.1. Research methodology

The campaign recognition and public awareness was evaluated using qualitative research methods to assess the campaign's impact and attitudes towards it. Qualitative methods were used because pre- and post-campaign quantitative tracking surveys with

robust sample sizes of the main target audience would have been prohibitively expensive.

Qualitative research aims to explore individual people's responses to the campaign using discursive ('talking') methods. The samples of participants were purposive, and quota driven. This means they were designed to reflect the audience of interest. Qualitative research offers detailed insight into individual views; however it is not appropriate to present qualitative findings in terms of the numbers of respondents expressing certain views.

The qualitative study was commissioned and undertaken by Ethnic Dimension, a specialist market research company[46]. The subjects were black men, the partners of black men, General Practitioners (GPs) and pharmacists in the six boroughs targeted by the campaign.

The research included five strands:
- six mini groups lasting between 1 and 1½ hours were conducted across North and South London amongst black men aged 45-70. Each mini group consisted of six participants and none had previously been diagnosed with cancer:
    - Three mini-groups among black African men (Nigerian and Ghanaian) in Lewisham, Haringey and Hackney
    - Three mini-groups among black Caribbean men in Lambeth, Newham and Southwark
- four in-depth interviews with two people of one hour's duration were conducted, with women who had black partners aged 45-70 who had no pre-existing cancer:
    - Two in-depth interviews among African women in Lambeth and Newham
    - Two in-depth interviews among Caribbean women in Hackney, Haringey and Lewisham
- sixteen individual face-to-face interviews with GPs who have substantial numbers of patients from the target audience; conducted in Southwark, Lambeth, Lewisham, Newham, Hackney and Haringey
- six individual face-to-face interviews among pharmacists who displayed campaign posters and/or leaflets
- nine telephone interviews with black men who had attended community events where the street marketing team had been present

The interviews were conducted in North London (Hackney, Haringey, Newham) and South London (Lambeth, Lewisham, Southwark) between December 2014 and January 2015, which was between one and two months after the campaign ended.

4.2.2. Results

There was evidence of awareness of prostate cancer and the higher risk for black African and Caribbean men in those who participated in the survey. There was good recall of the different elements of the outreach and community engagement work. The level of knowledge of what the prostate is, what could go wrong with it, what prostate cancer is, and how it could be diagnosed or treated was good among some black men and women but was more limited and variable in others.

The campaign activity helped to spread awareness of prostate cancer among black men. Yet anecdotally GPs did not report a significant increase in visits from their black male patients as a result. The campaign finished at the end of November and the field work (interviewing) began in early December so it is plausible that an impact on GP appointments had yet to be noticed.

4.2.3. Campaign and media

The media, events and street team activity were considered appropriate and relevant by the study participants. The campaign messages '1 in 4 black men will get prostate cancer' and 'prostate cancer often has no symptoms' seem to have filtered through and attracted attention. Pharmacists were found to be an effective route for raising awareness among the black community; some of those interviewed reported holding conversations with their black customers about prostate cancer symptoms.

4.2.4. Outreach events

There was good recall of the different elements of the outreach and community engagement work among the target audience. Indeed, the outreach and community engagement campaign helped to raise awareness and generated discussions in the community and within their families. The Prostate Cancer UK leaflets distributed at the events were used by attendees to aid discussion with family and work colleagues. The campaign materials ('Errol' and 'Dr Frank' posters, Prostate Cancer UK leaflet information for black men, the Oyster card holder and Prostate Cancer UK 'Men United v Prostate Cancer' leaflet) (Figure 1) were all well received.

4.2.5. Prostate Cancer Risk Management Programme (PCRMP)

The PCRMP[47] exists to help primary care providers give clear and balanced information to men without symptoms who ask GPs about testing for prostate cancer. It includes information on the increased incidence of prostate cancer in black men. The PSA test is available free to any man aged 50 or over who requests it, after careful consideration of the implications of having a test.

GPs were asked about the use of the PCRMP during the face to face interviews. There was little reported usage of the PCRMP pack amongst GPs. GPs in the sample reported a preference for online guidelines.

4.3.   GP attendances

It was expected that the measures most likely to be sensitive to change for this type of campaign would be those early in the patient pathway; that is, changes in patient attitudes resulting in attendance at a GP practice. However, it was not possible to analyse the number of men attending a GP practice to discuss campaign-related symptoms for the local prostate cancer awareness campaign. This was because the low volume of data for GP practices within the local pilot campaign area available from the relevant dataset (The Health Improvement Network (THIN) database) would not allow for a robust evaluation.

4.4.   Cancer Waiting Time (CWT) database metrics

The full evaluation methodology for the Be Clear On Cancer campaign is published online [48]. The following paragraphs explain the methods and limitations specific to the CWT database metrics for the local prostate cancer awareness campaign.

4.4.1. Methodological notes

The CWT database analysis considers the following metrics:
- urgent GP referrals for suspected cancer
- prostate (ICD10 C61) and urological (C60-61, C63-68) cancer diagnoses resulting from an urgent GP referral
- percentage of urgent GP referrals for suspected cancer resulting in a diagnosis of prostate or urological cancer, defined as the conversion rate
- prostate or urological cancer diagnoses recorded in the CWT
- percentage of CWT recorded urological cancer diagnoses which resulted from an urgent GP referral, defined as the detection rate.

Analysis and comparison periods

The analysis and comparison periods for each of the above metrics were chosen to avoid possible overlap with other BCoC campaigns where possible. The local pilot campaign ran from 20 October 2014 to 23 November 2014 and did therefore overlap with the second national BCoC Blood in Pee campaign, which ran in England from 13 October to 23 November 2014. The analysis and comparison periods were chosen expecting that few changes related to the campaign would be seen during October 2014.

Comparison periods from late 2012 to early 2013 were chosen to avoid the impact of the first national BCoC Blood in Pee campaign (October to November 2013).

The analysis and comparison periods for the local prostate cancer awareness campaign evaluation are shown in Table 6.

Table 6: Analysis and comparison periods for CWT database metrics

	Metric and related analysis and comparison periods	
	- urgent GP referral for suspected urological cancer - cancer diagnoses resulting from an urgent GP referral - conversion rate	- cancer diagnoses recorded in the CWT - detection rate
Analysis Period	November to December 2014	December 2014 to January 2015
Comparison Period	November to December 2012	December 2012 to January 2013

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

Analysis region

The campaign region consisted of the 6 London boroughs of Hackney, Haringey, Lambeth, Lewisham, Newham and Southwark. We analysed all ethnic groups together as conducting the analysis by ethnic group would have produced unstable estimates (due to small numbers); this would have resulted in complexities when drawing an accurate conclusion of campaign impact.

Control area

As the prostate cancer awareness local pilot campaign focussed on the risk of prostate cancer for black men, the control area was defined to reflect a similar black population, rather than comparing results to the predominantly white population of England as a whole. The control area included the six London boroughs of Barking and Dagenham, Brent, Croydon, Enfield, Greenwich and Waltham Forest. This control area was as similar to the local pilot area as possible, based on the black population of 22% of all ethnicities recorded in the 2011 census[49].

Recording of urological cancers

Referrals for suspected prostate cancer are not recorded separately from other urological cancers in the CWT database and are grouped together as '*referrals for suspected urological cancers*'. Therefore, it is not possible to isolate the impact of the second national Blood in Pee awareness campaign from that of the local prostate cancer awareness local pilot campaign.

To try and mitigate against the concurrent impact of the second national Blood in Pee awareness campaign, the referral results include a comparison between referrals for men (possibly affected by both campaigns) and referrals for women (which would not be affected by the prostate cancer awareness local pilot campaign).

GP referrals - trends

The number of urgent GP referrals for suspected urological cancer has continued to increase year-on-year. Changes in the number of urgent GP referrals observed during the analysis period will therefore be partly explained by this underlying trend. In order to help isolate campaign impact in light of this trend, the number of urgent GP referrals for suspected suspected head and neck cancers (which were not expected to be impacted by either campaign) were also analysed.

4.4.2. Urgent GP referrals for suspected cancer

Between November to December 2012 and November to December 2014, there was a statistically significant 42% increase in urgent GP referrals for suspected urological cancer for men (mainly in men aged under 45 and aged 45 to 64) within the local pilot area, however there was a much larger corresponding increase in the control area of 71% (Table 7, Figure 3).

For women, the increase in referrals for suspected urological cancers in the local pilot area was similar to that in the control area, with increases of over 110% in both areas, suggesting the two areas are reasonably comparable.

Table 7: Number of urgent GP referrals for suspected urological cancers, from November to December 2012 and November to December 2014, for men and women, local pilot campaign area and control area (all ethnicities) [4]

		November to December					
		Analysis period	Referrals (Number)	% change in number	P-value	Referral rate	
						Estimate	95% CI
Men	Local pilot area	2012	389	42	<0.001	592	(530, 658)
		2014	552			756	(689, 827)
	Control area	2012	449	71	<0.001	538	(487, 591)
		2014	766			887	(823, 954)
Women	Local pilot area	2012	94	116	<0.001	112	(89, 138)
		2014	203			235	(202, 271)
	Control area	2012	107	110	<0.001	102	(83, 124)
		2014	225			202	(176, 231)

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital
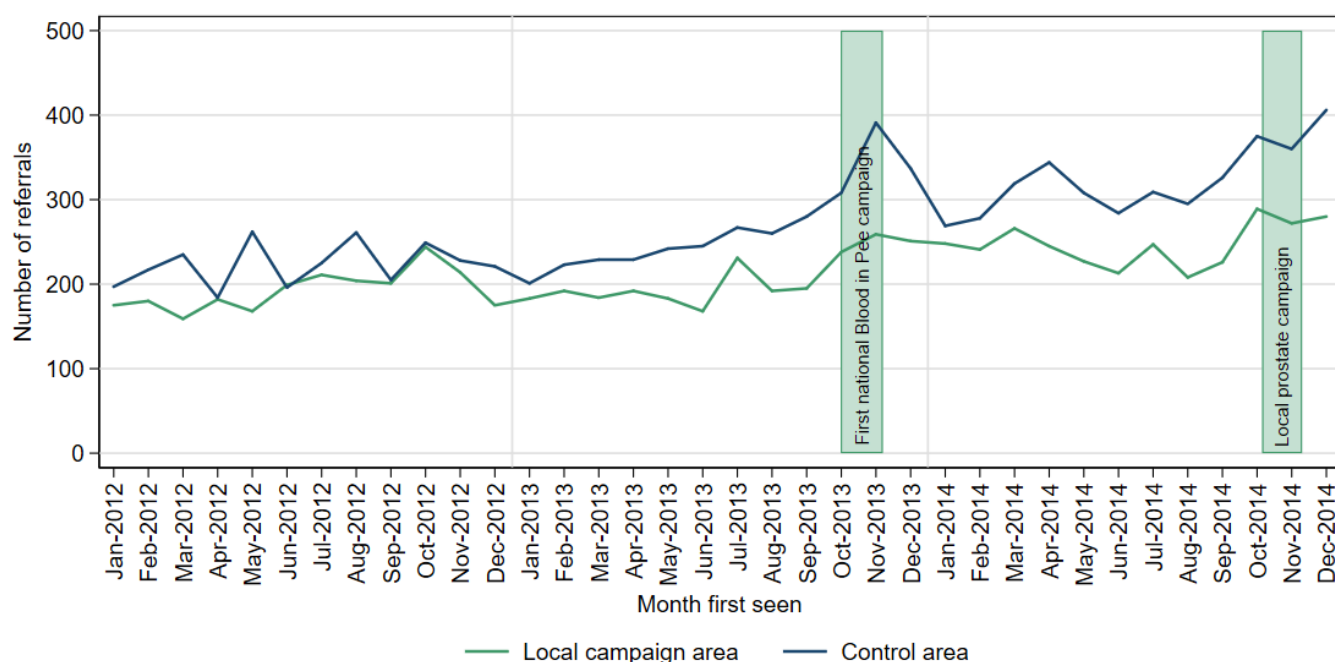
Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

Figure 3: Monthly number of urgent GP referrals for suspected urological cancers from January 2012 to December 2014, for men, local pilot campaign area and control area

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[4] All ethnic groups were analysed together as conducting the analysis by ethnic group would have produced unstable estimates due to small numbers

The combined impact of the second national Blood in Pee and prostate cancer awareness local pilot campaigns in the pilot area appeared smaller than the impact of the second Blood in Pee awareness campaign alone in the control area. The number of urgent GP referrals for suspected urological cancer for men in the local pilot area was higher in October (prior to the local prostate campaign) than in either November or December. This is most likely to be due to month-to-month variation but may have been affected by the second Blood in Pee awareness campaign as this started a week earlier than the local prostate cancer awareness campaign.

Table 8: Number of urgent GP referrals for suspected head and neck cancers, November to December 2012 and November to December 2014, men only (all ethnicities)

			November to December			
	Referrals		**% change in number**	**P-value**	**Referral rate**	
					Estimate	**95% CI**
Local pilot area	2012	195	21	0.048	209.6	(177.7, 245.3)
	2014	236			259.3	(223.1, 299.5)

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

There was a 42% increase in the number of urgent GP referrals for suspected urological cancer in the local pilot area for men. However, there was a 116% increase for women. There was a smaller 21% increase in the number of urgent GP referrals in the control group for suspected head and neck cancers (Table 8) in the local pilot area for men. This suggests that the combined Blood in Pee and prostate cancer awareness campaigns may have had an effect on urgent GP referrals for suspected urological cancer.

However, the 110% rise in referrals for suspected urological cancer seen among women in both the pilot and control area is likely to be due to the second national Blood in Pee awareness campaign rather than the local prostate cancer awareness campaign. This effect in females implies that the local prostate cancer awareness campaign had no demonstrable effect on urgent GP referrals for suspected urological cancer.

4.4.3. Cancer diagnoses resulting from an urgent GP referral for suspected cancer

The number of prostate and urological cancer diagnoses resulting from an urgent GP referral for suspected urological cancer were higher in November to December 2014 than in November to December 2012, in both the local pilot campaign area and the control area (Table 9). However, in the local pilot area, the 19% increase in prostate cancer and 12% increase in urological cancer diagnoses were not statistically

significant. These increases were also smaller than the statistically significant increases in the control area, which saw increases of 55% for prostate cancer and 35% for urological cancer diagnoses.

Table 9: GP referral for suspected urological cancers for men, with percentage change in number of cancers, from November to December 2012 and November to December 2014, local pilot area and control area (all ethnicities)

Cancer Type Men, All ethnicities		November to December			
		Number of cancers diagnosed from urgent GP referral		% change in number	P-value
		2012	2014		
Prostate	Local pilot area	53	63	19	0.353
	Control area	58	90	55	0.008
Urological	Local pilot area	67	75	12	0.502
	Control area	74	100	35	0.048

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

The number of prostate and urological cancer diagnoses resulting from an urgent GP referral for suspected urological cancer shows considerable month-to-month variability for both the local pilot campaign area and the control area (Figure 4). In the local pilot campaign area, there were fewer prostate and urological cancer diagnoses in November and December 2014 than in some earlier months in 2014.

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

Figure 4: Monthly number of prostate cancer diagnoses resulting from an urgent GP referral for suspected urological cancers (all ethnicities)

These results indicate that the local prostate cancer awareness campaign did not have an impact on the number of diagnoses resulting from an urgent GP referral for suspected urological cancer.

4.4.4. Conversion rate

Conversion rate is defined here as *the percentage of urgent GP referrals for suspected urological cancer, which result in a diagnosis of urological cancer.*

Between November to December 2012 and November to December 2014, there were small non-statistically significant decreases in the prostate and urological cancer conversion rates for urgent GP referrals for suspected urological cancer (Table 10). The changes were similar for both local pilot campaign and control areas. These conversion rates have been generally decreasing in both areas during 2012 to 2014, although with monthly variability (Figure 5). The campaign pre-dated the publication of the NICE (National Institute for Health and Care Excellence) cancer referral guidelines in June 2015[50], hence these guidelines did not influence the outcome of this analysis.

Table 10: Prostate and urological cancer conversion rates for urgent GP referrals for suspected urological cancers for men, with change, from November to December 2012 and November to December 2014, local pilot campaign area and control area (all ethnicities)

| Cancer Type | Men | November to December | | | | %-Point Change | P-value |
| | | 2012 | | 2014 | | | |
		Conv. Rate (%)	95% CI	Conv. Rate (%)	95% CI		
Prostate	Local pilot area	13.6	(10.6, 17.4)	11.4	(9.0, 14.3)	-2.2	0.310
	Control area	12.9	(10.1, 16.3)	11.7	(9.7, 14.2)	-1.2	0.548
Urological	Local pilot area	17.2	(13.8, 21.3)	13.6	(11.0, 16.7)	-3.6	0.125
	Control area	16.5	(13.3, 20.2)	13.1	(10.9, 15.6)	-3.4	0.100

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

Figure 5: Monthly prostate cancer conversion rates for urgent GP referrals for suspected urological cancers (all ethnicities)

There was no evidence that the local prostate cancer awareness campaign had an impact on the prostate or urological cancer conversion rates.

4.4.5. Cancer diagnoses recorded in the CWT database

This metric relates to all urological cancers recorded in the CWT database, not just those referred urgently by their GP.

For the local pilot campaign and control areas, there were no statistically significant changes in the number of prostate cancer and urological cancer diagnoses recorded in the CWT database between December 2014 to January 2015 and December 2012 to January 2013 (Table 11). Once again this was in a setting of wide month-to-month variation in the number of diagnoses (Figure 6).

Table 11: Number of prostate and urological cancer diagnoses recorded in the Cancer Waiting Times database (all ethnicities)

Cancer Type	Men	December to January		% change in number	P-value
		CWT Cancers			
		2012/13	2014/15		
Prostate	Local pilot area	111	110	-0.9	0.946
	Control area	123	134	8.9	0.493
Urological	Local pilot area	144	142	-1.4	0.906
	Control area	151	154	2.0	0.864

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital
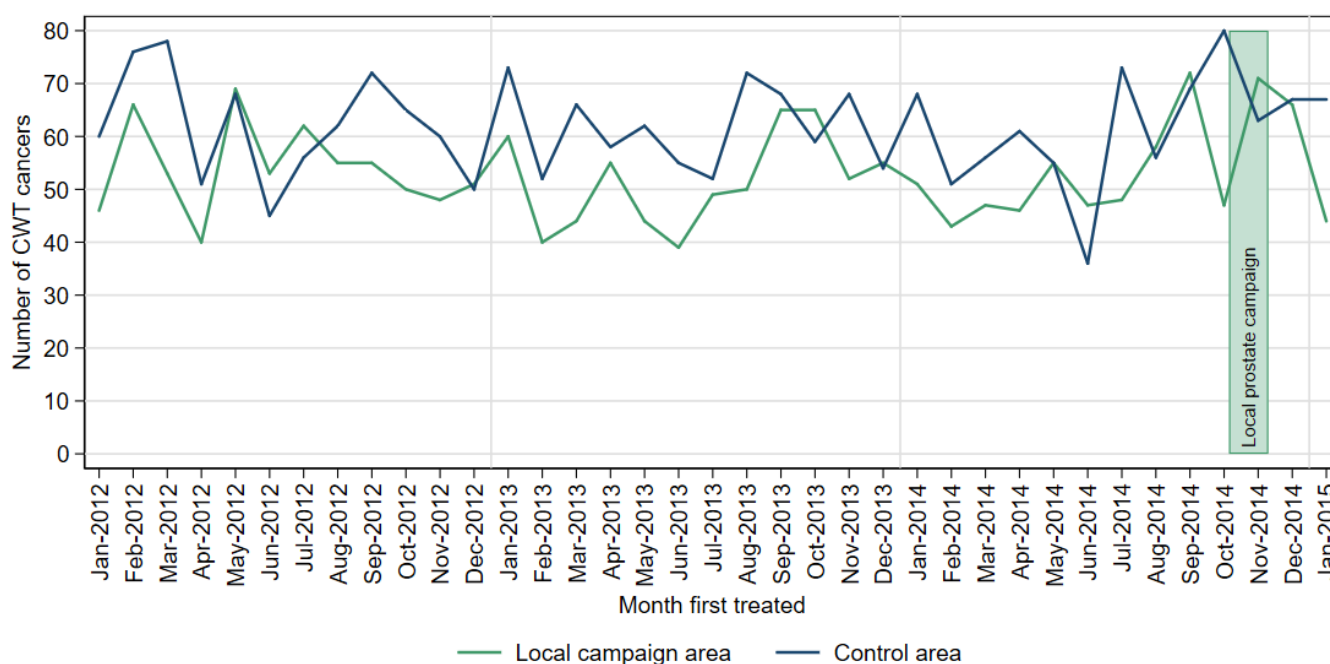
Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

Figure 6: Monthly number of prostate cancer diagnoses recorded in the Cancer Waiting Times database (all ethnicities)

There was no evidence that the prostate cancer awareness local pilot campaign had an impact on the number of prostate or urological cancer diagnoses recorded in the CWT during the analysis period.

4.4.6. Detection rate

The detection rate is defined here as *the percentage of CWT-recorded urological cancer diagnoses which resulted from an urgent GP referral*. It is a measure of presentation and referral of patients with relevant clinical features.

In the local pilot campaign area, comparing December 2012 to January 2013 and December 2014 to January 2015, there were no statistically significant changes in the detection rate for prostate or urological cancer, although the observed rate decreased by 10% for prostate cancer, and by 8% for urological cancer (Table 12). In contrast, the detection rates statistically significantly increased in the control area, by 22% for prostate cancer and by 19% for urological cancer but with wide month to month variation (Figure 7).

For the control area, the increases in detection rate may also be related to the second Blood in Pee national awareness campaign.

Table 12: Detection rates for prostate and urological cancer diagnoses (all ethnicities)

Cancer Type	Men, overall	December to January					
		2012/13		2014/15		%Point Change	P-value
		Det. Rate (%)	95% CI	Det. Rate (%)	95% CI		
Prostate	Local pilot area	63.1	(53.8, 71.5)	52.7	(43.5, 61.8)	-10.3	0.120
	Control area	50.4	(41.7, 59.1)	72.4	(64.3, 79.3)	22.0	<0.001
Urological	Local pilot area	58.3	(50.2, 66.1)	50.0	(41.9, 58.1)	-8.3	0.157
	Control area	49.0	(41.2, 56.9)	68.2	(60.5, 75.0)	19.2	<0.001

Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital
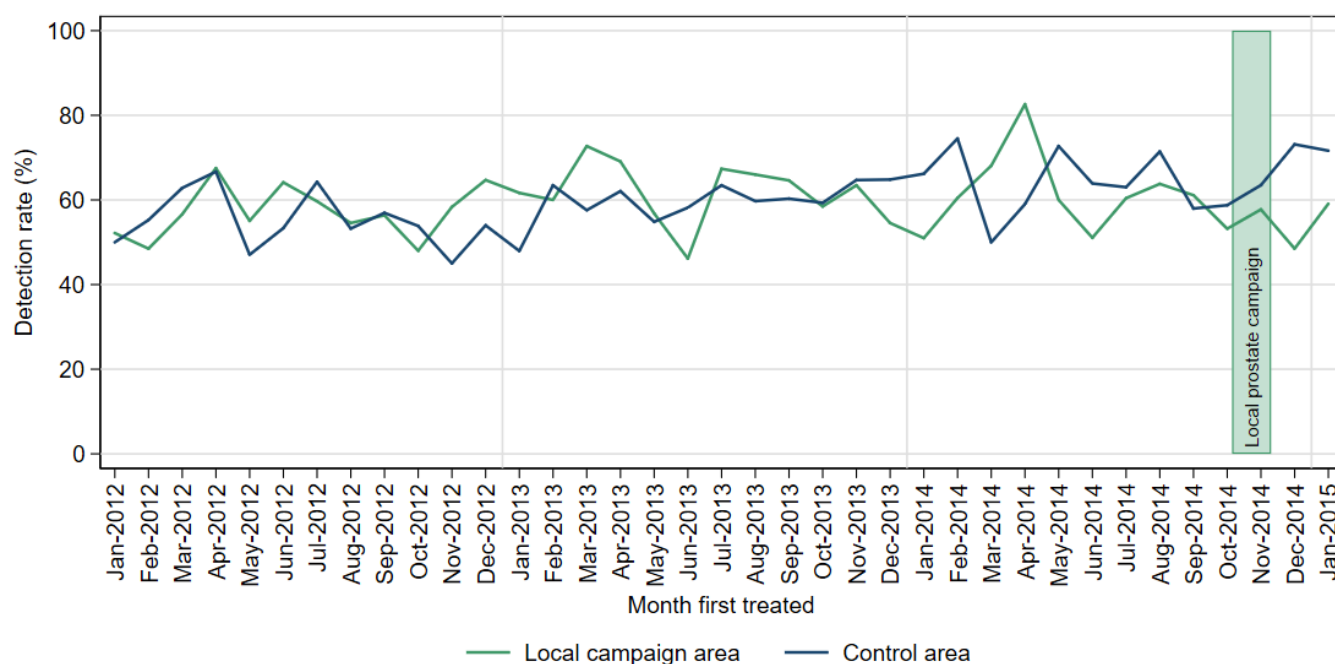
Source: NCRAS, PHE. Cancer Waiting Times data provided by NHS England and NHS Digital

Figure 7: Monthly detection rates for prostate cancer (all ethnicities)

There was no evidence that either the local prostate cancer awareness campaign or the second national Blood in Pee awareness campaign had any impact on the detection rates for the local pilot campaign area.

4.4.7. Conclusion – CWT database metrics

The analysis period saw statistically significant increases in urgent GP referrals for urological cancers for men within the local pilot campaign area, however there were larger increases in urgent GP referrals for men in the control area and for women in both the local pilot campaign and control areas. This suggests that the impact of the prostate cancer awareness local pilot campaign and the second national Blood in Pee awareness campaign was smaller for men in the local pilot campaign area than the impact of the second national Blood in Pee awareness campaign alone for men and women in the control area.

Similarly, there were no statistically significant changes in the number of diagnoses resulting from an urgent GP referral for suspected urological cancer. Significant changes in detection rate were seen in the control area but not in the local pilot campaign area.

Overall no significant changes were seen in CWT database metrics as a result of the campaign.
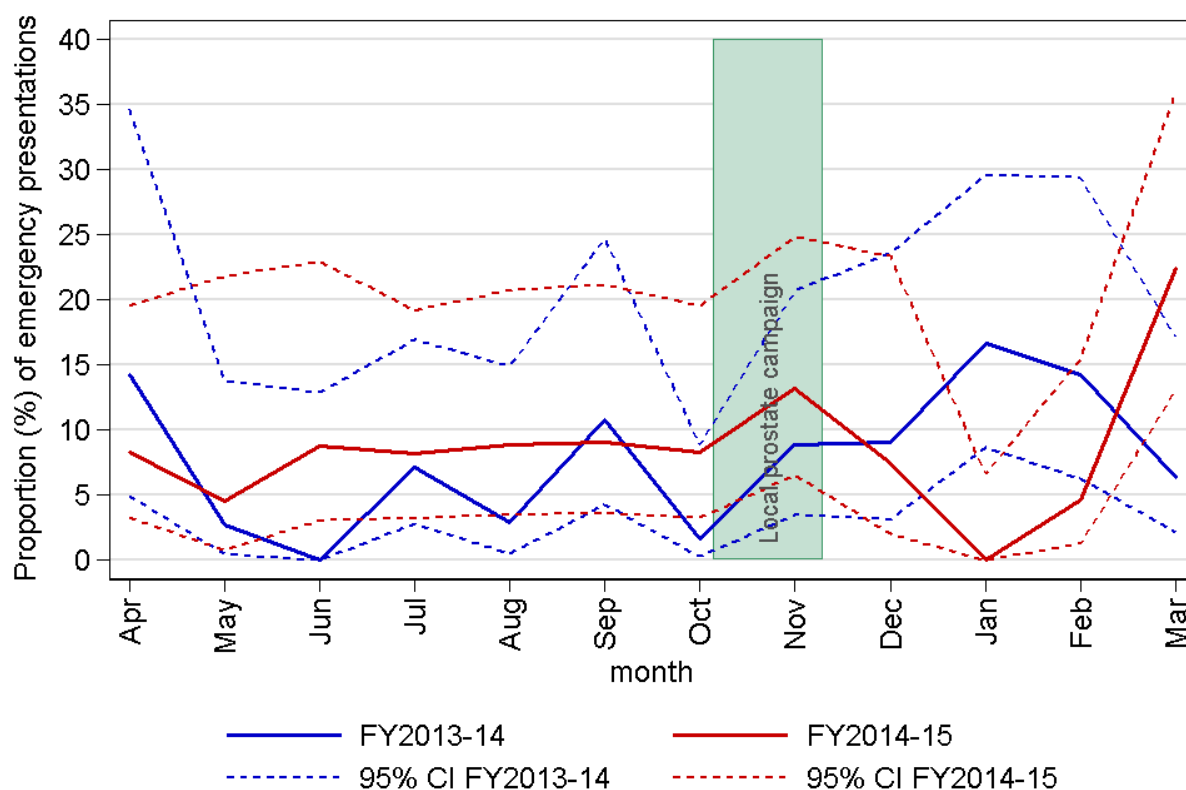
4.5.   Emergency Presentations

This metric investigates changes to the proportion of patients with a new diagnosis of prostate cancer who present as an emergency. Emergency presentation is strongly correlated with poor survival [51]. If patient behaviour could be influenced to encourage presentation before the onset of life-threatening complications such as renal failure or spinal cord compression, then survival may improve with even modest improvement in time from the onset of symptoms to presentation.

The Hospital Episode Statistics (HES) derived emergency presentation metric is calculated from inpatient data and uses the methodology set out in the cancer outcomes metric specification [27]. It measures the proportion of men diagnosed with prostate cancer who first presented as an emergency.

Data was extracted on 19 October 2016 for men admitted during the 2013 to 2014, and 2014 to 2015 financial years, who were resident in the corresponding London clinical commissioning groups (using 2013 CCG geographies) and who had a primary diagnosis of prostate cancer (ICD-10 C61) [4]. This data only includes inpatient activity and so does not include men diagnosed via other routes, for example outpatient or general practice settings.

In the local pilot area 479 men were admitted with prostate cancer in 2013-14 and 37 (7.7%) were diagnosed through emergency presentation. In 2014-15, there were 516 and 46 (9.0%) respectively. The percentage of men diagnosed with prostate cancer via emergency presentation was 8.3% in October and 13.0% in November 2014, compared with 1.7% and 8.9% for the same months in 2013. Overall, there were no significant differences in the proportions of prostate cancers diagnosed via emergency presentation for the local pilot area in 2014 compared with 2013 (Figure 8), however caution should be applied due to the small numbers. The data relates to patients with an inpatient admission, which includes all emergency admissions but not necessarily all A&E attendances. However, it represents only a small proportion of new prostate cancer diagnoses; the vast majority of prostate cancer is diagnosed via GP referral, as an outpatient.

Figure 8: Proportion of emergency presentations and 95% confidence intervals for prostate cancer by month (all ethnicities)

4.6.   Cancer incidence

This metric considers whether the local prostate cancer awareness campaign had an impact on the number of newly diagnosed cases of prostate cancer for men resident in the campaign area [4].

Data was extracted from the national cancer registration dataset [52] for the campaign analysis period which was defined as two weeks after the start of the campaign (week 45 of 2014) to two months after the end of the campaign (week 5 of 2015). The numbers of cases diagnosed per week in the analysis period were compared with the annual median number of cases for June 2014 to May 2015. The campaign was considered to have an impact if a) the number of cases per week were the same or higher than the 2014 to 2015 median for five or more consecutive weeks and b) this sustained period started during the campaign analysis period.

There were no sustained periods where the numbers of prostate cancers were the same as or higher than the 2014 to 2015 median (Figure 9). However, the wide week to

week variation in new diagnoses makes it challenging to draw firm conclusions. In addition, once again the outcome measure includes all ethnicities rather than just black men whom the campaign intended to influence.

The local prostate campaign does not appear to have had an impact on the number of prostate cancers diagnosed in the local pilot campaign area.
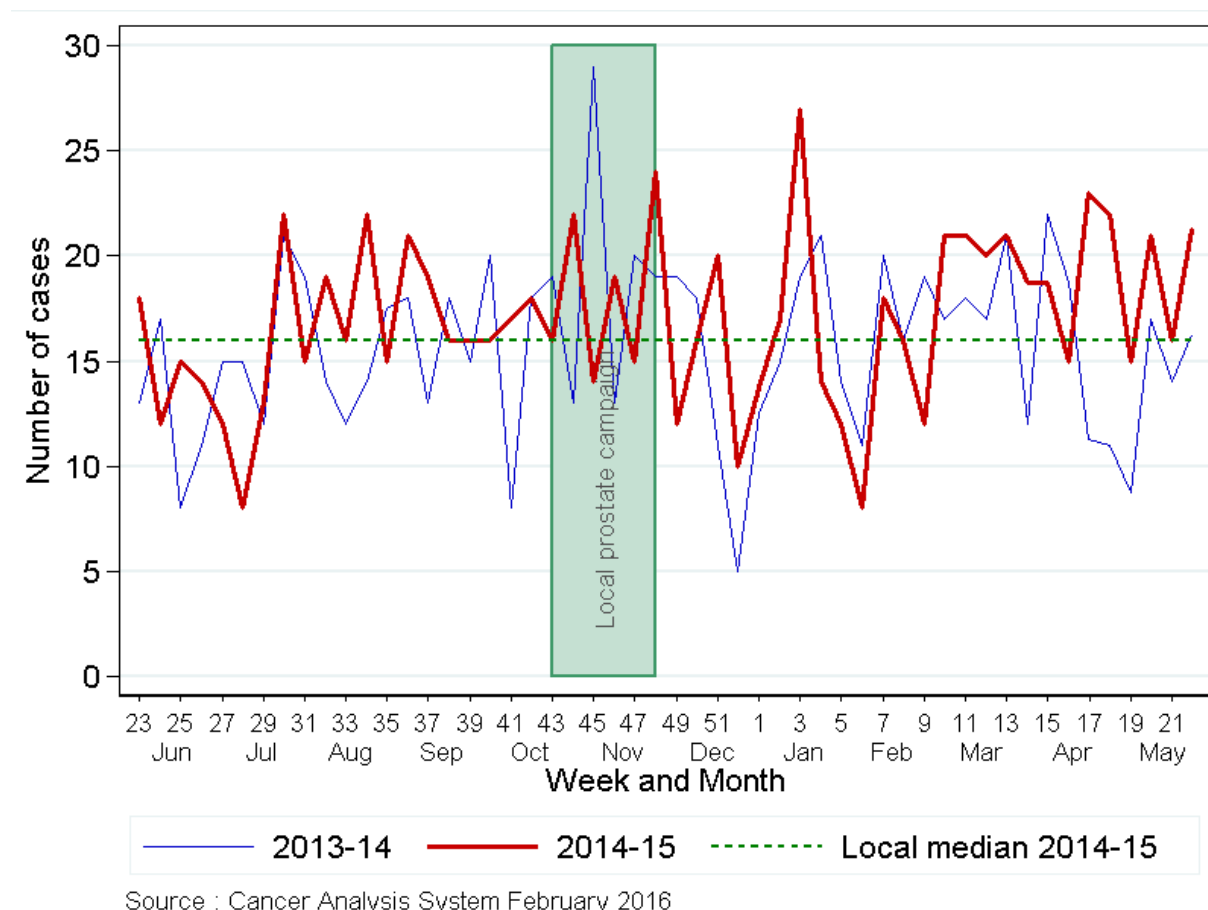
Figure 9: Number of newly diagnosed cases of prostate cancer by week, local pilot campaign area, June 2013 to May 2015, all ages

4.7.   Stage at diagnosis

This metric measures whether the local prostate cancer awareness campaign had an impact on the proportion of prostate cancer (ICD-10 C61) diagnosed at an early stage (defined as disease stages 1 or 2), for men of all ages and all ethnicities resident in the local pilot area.

The number of men presenting for PSA testing with asymptomatic disease influences the stage at diagnosis for a population. It is less likely that for men with prostate cancer symptoms attending a few weeks earlier will influence tumour stage.

The campaign analysis period was defined as two weeks after the start of the campaign (week 45 of 2014) to two months after the end of the campaign (week 5 of 2015). The proportion of early staged cases per week in the analysis period was compared with the overall median for June 2014 to May 2015. The campaign was considered to have a possible impact if a) the proportion per week was the same or higher than the median for five or more consecutive weeks and b) this sustained period started during the analysis period.

The proportion of early stage prostate cancer was the same as or higher than the local median 2014 -2015 for weeks 1 to 5 of 2015 (Figure 10). This represents an additional 8 cases diagnosed at an early stage compared with the expected number based on the median (46 cases).

Source : Cancer Analysis System February 2016
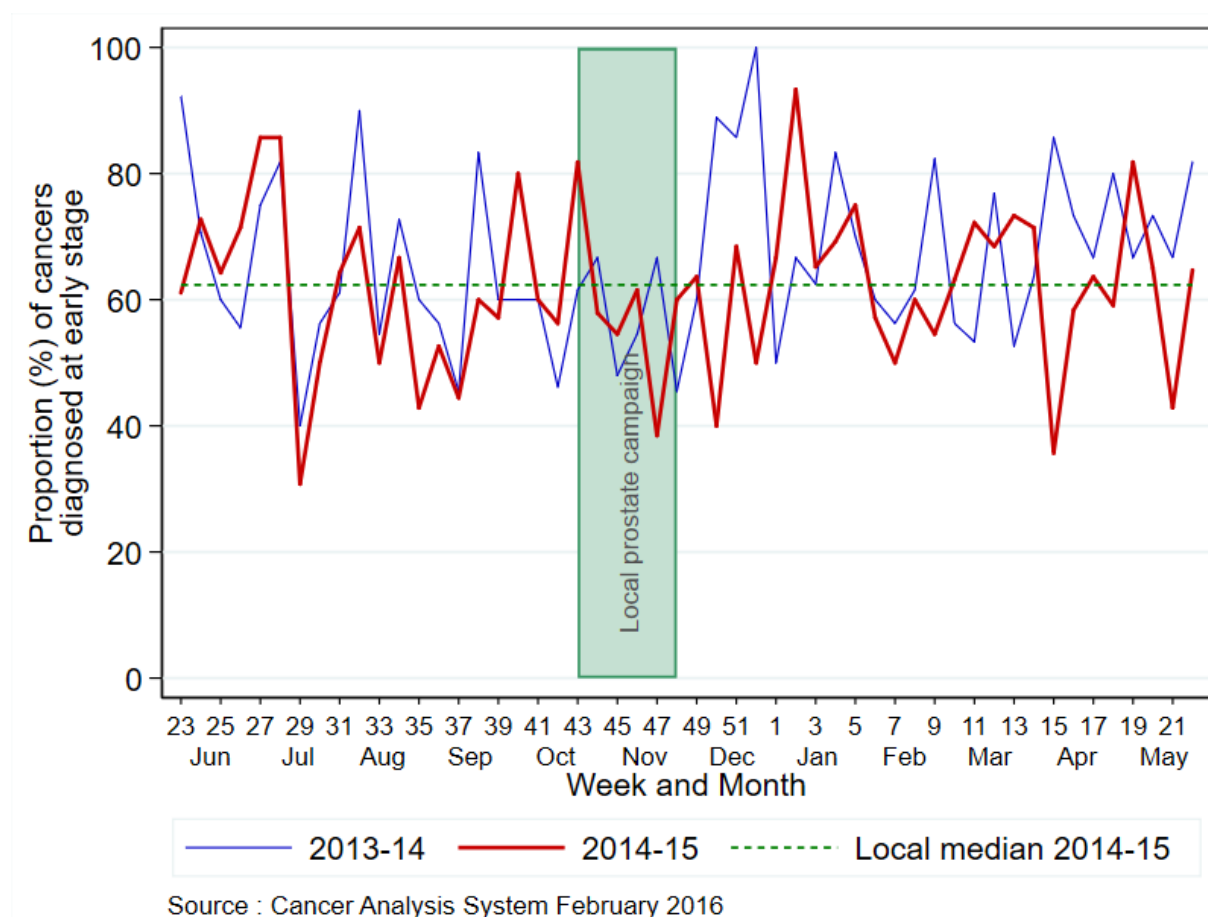
Figure 10: Proportion of prostate cancer diagnosed at stage 1 or 2 by week, local pilot campaign area, June 2013 to May 2015, all ages, all ethnicities

The local prostate campaign may have had an impact on the proportion of prostate cancers diagnosed at an early stage. However, caution must be applied as these results are based on small numbers (with a range of 3 to 15 both for men of all ages and for those aged 50 years and over), with wide week-to-week variability. In addition, improvements in data quality for stage at diagnosis over recent years must be

considered; 80.3% of prostate cancers were staged in the 2013-2014 period, and 88.1% in 2014-2015.

4.8.   Diagnostics in secondary care

This metric measures whether the local prostate campaign had an impact on the number of imaging tests conducted by NHS providers, thereby giving an indication of the campaign's effect on services [4] . These include ultrasound, CT scans and MRI tests commonly conducted for suspected prostate cancer, however we cannot be certain these tests were not conducted for other non-prostate-cancer medical conditions.

The data on the total number of ultrasounds, CT scans and MRIs conducted were obtained from the Diagnostic Imaging Dataset (DID) held on NHS Digital's iView system[53]. The data contains details of referrals by GPs, consultants and other healthcare professionals for certain SNOMED and NICIP codes (see Appendix 1). This metric compares the difference in the total monthly number of ultrasounds, CT scans and MRIs between the analysis period of November 2014 to January 2015 and the comparison period of November 2013 to January 2014.

Comparing the months November 2014 to January 2015 with November 2013 to January 2014, there was a 9.6% decrease in the total number of ultrasounds, CT scans and MRIs for those aged 50 years and over, and a 9.1% decrease for all ages. However, these changes were not statistically significant. Figure 11 shows the number of ultrasounds, CT scans and MRIs from July 2013 to April 2015 for men aged 50 years and over.

There is no evidence to suggest that the prostate cancer awareness local pilot had an impact on the number of ultrasounds, CT scans and MRIs carried out.
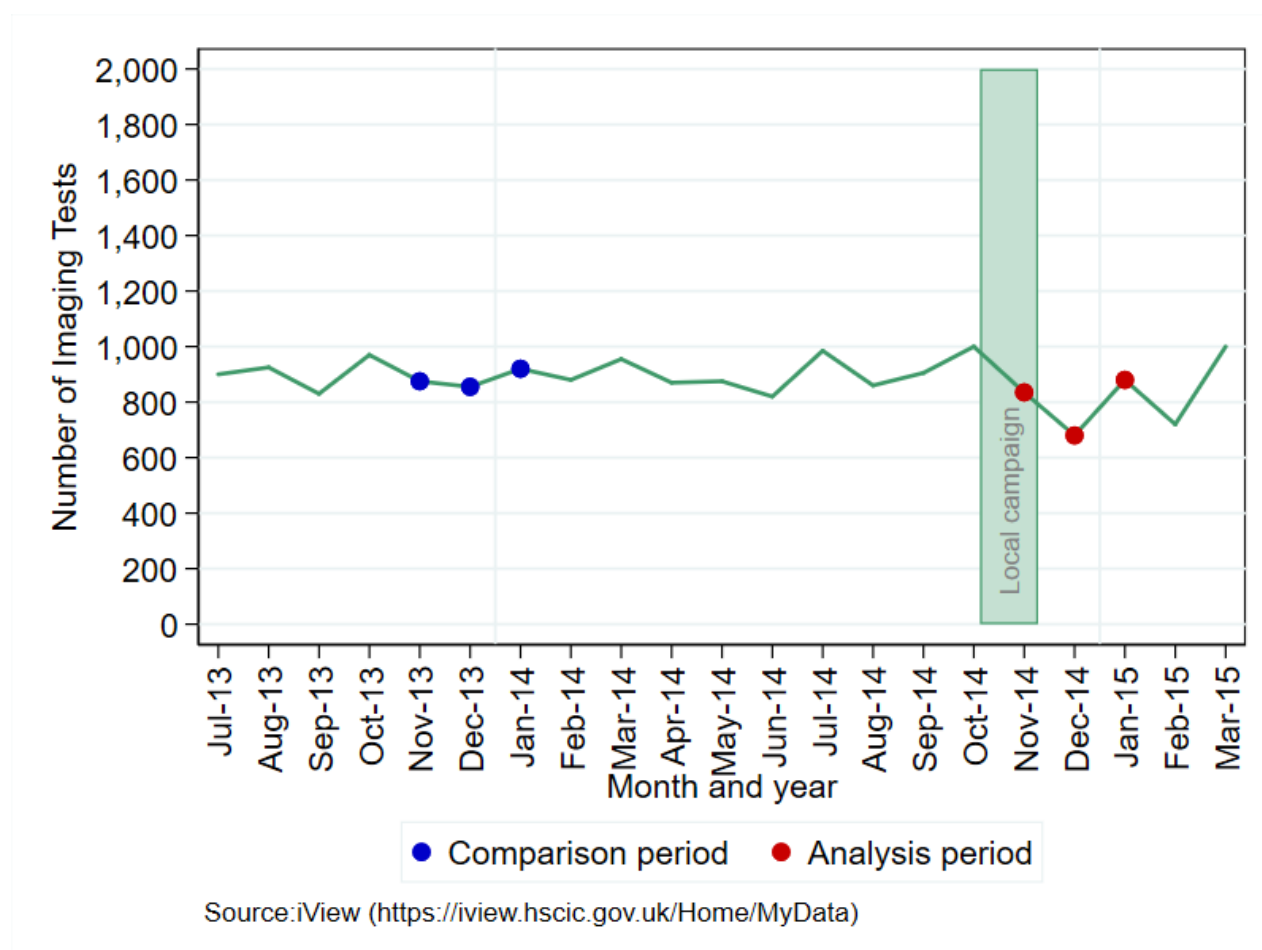
Figure 11: Monthly number of ultrasounds, CT scans and MRIs, July 2013 to April 2015, local pilot campaign area, aged 50 and over.

4.9.   One-year survival

This metric measures whether the local prostate campaign had an impact on one-year survival for men. One-year survival is sensitive to changes in both early and late presentation. Few men die from prostate cancer within a year of presentation and those who do have usually presented with more advanced disease. However, it is expected that one-year survival would improve if more asymptomatic patients with good prognosis had presented for investigation as a result of the campaign. The proportion of men staged with localised disease has increased markedly in recent years, this probably reflects the diagnosis of asymptomatic disease using PSA. Such patients usually have a good prognosis and may increase overall survival, without a true reduction in mortality (lead-time bias). Hence improvement in the prognosis of patients presenting with advanced disease may not be the main factor contributing to the overall improvement in one-year survival.

Men aged 50 to 99 years were followed up until December 2016 to obtain their last known vital status. The analysis period was defined as two weeks after the start of the campaign (1 November 2014) to two months after the end of the campaign (31 January

2015). One-year age-specific net survival was calculated using the methodology outlined in the Office for National Statistics: Cancer Survival Statistical Bulletins [54]. Net survival refers to the probability of surviving cancer accounting for other causes of death. The one-year survival for men diagnosed in the analysis period was compared with those diagnosed from 1 January to 31 October 2014 in the local campaign area.

There was no statistically significant difference in one-year survival for men aged 50 and over diagnosed with prostate cancer between the analysis period (November 2014 to January 2015) and the comparison period (January 2014 to October 2014) in the local campaign area (Table 13). One-year survival for men diagnosed during the analysis period was 96.9% compared with 94.5% for those diagnosed in the comparison period.

Table 13: One-year net survival (%) for men aged 50 years and over, all ethnicities, local campaign area

Site	Comparison period Jan 14 -Oct 14	Analysis period Nov 14 - Jan 15
Prostate	94.5% (95%CI: 91.8 - 97.2)	96.9% (95%CI: 95.6 - 98.1)

Source: Cancer Analysis System, 2017

The local prostate campaign did not appear to have had an impact on one-year survival for men aged 50 years and over, diagnosed with prostate cancer.

It should be noted that the campaign message was directed towards black men, encouraging them to present to primary care to discuss their risk of prostate cancer. Black men constituting only 22% of the local population, therefore the outcome data includes men of all ethnicities diagnosed during the campaign due to the small numbers of diagnoses in the local areas.

5. Discussion and conclusions

The campaign's core message was:

> **'1 in 4 black men will get prostate cancer. Prostate cancer often has no obvious symptoms. If you are a black man over 45 and want to discuss your personal risk of prostate cancer, visit your GP'**.

The campaign was of a robust methodological design and used interventions shown to be effective in small populations elsewhere [3, 9, 10]. The outcome measures were appropriate, and some were unique to NHS practice. However, the analysis period is relatively short and some changes in patient behaviour may not be immediate, for example if a man delays visiting his GP to discuss prostate cancer.

In addition, the structure of the analysis tools inevitably introduced several factors which made interpretation difficult. The campaign was unexpectedly ineffective, except perhaps in lowering stage at presentation, but the weaknesses in the tools used to measure outcome could have hidden significant results. In particular, the metrics measured did not include ethnicity. Ethnicity data is often incomplete in NHS systems and was not available in all of the datasets used for this analysis. Whilst technically feasible to analyse some of the metrics included in this analysis by ethnicity, as the campaign only ran in a small pilot area the number of diagnoses included would be too small to enable robust comparisons. This would also introduce an inconsistency between metrics.

The factors which contributed to the difficulty in interpretation of campaign results are listed in Table 14, and discussed further below:

Table 14: Potential confounding factors

Rising incidence of prostate cancer in the UK
Analysis of outcomes for the whole population not just those the campaign was designed to influence
Use of historical control periods
Potential for control populations to be unrepresentative
Temporal clashes with other campaigns (Blood in Pee)
Wide week to week or month to month variability of all metrics
Improvement in the proportion of patients for whom stage was reported
The potential influence of media stories outside the analysis period

These factors could all influence the outcomes recorded. The rising incidence of prostate cancer is due to aging of the population and increasing use of diagnostic tests such as PSA.

This makes historical controls potentially less appropriate since the annual rise in incidence has to be taken into account.

The lack of data directly relating to the target population (black men) leaves open the possibility that there were changes in the target population which could not be detected due to dilution of effect by the larger general population.

The use of neighbouring areas to choose a control population has potential to be inaccurate if the two populations are not fully matched. The very large differences in urgent GP referral seen in the neighbouring control area suggest that the two populations are intrinsically different.

It is unfortunate that the second national Blood in Pee campaign overlapped the Prostate cancer local pilot. Inevitably this makes conclusions difficult to draw, and once again it is possible that the overlap masked a real effect from the prostate cancer local pilot.

The wide week-to-week variation of many of the metrics is much larger than any of the effects seen, this makes it difficult to know if an effect is simply natural variability or a genuine change.

Completeness of tumour stage data has been improving for a decade and the improvement over the study period is likely to be relatively small. However, a step change in staging completeness in a single hospital would make a small change in national data but could have a major influence on local data. What we do not know is whether the changes seen in stage at presentation are due to an impact on patient behaviour related to the campaign, or simply due to a change in the staging completeness for the local population.

Finally, there has been a dramatic rise in referral for suspected prostate cancer due to recent media stories involving personal experiences of some well-known celebrity figures. This has been felt across the whole country and it is unlikely that the population in the local pilot campaign area will not have been influenced.

By their nature, awareness campaigns are more likely to have a greater impact on metrics relating to patient behaviour (for example symptom awareness and GP attendance with relevant symptoms) and use of the healthcare system (for example urgent GP referral for suspected cancer), compared with disease metrics (for example incidence, stage at diagnosis, and survival).

There is a very high incidence of prostate cancer in asymptomatic men [55] and there is a very long lead time from diagnosis to death for men with localised disease. The campaign aimed to reduce the chances that prostate cancer will cause ill health or death. The metrics used are mainly unable to distinguish between an effect on men with

disease likely to cause illness or death from those men who have prostate cancer unlikely to cause illness during their lifetime, in part due to the short analysis period of the campaign. The corollary of this is the lack of value of survival data in prostate cancer, due to its sensitivity to increasing diagnosis of incidental disease, compared with changes seen in mortality data which are only influenced by improvement or otherwise for men with disease likely to cause death.

Overall there was very little evidence that the media campaign had an impact on improving the outcomes of men who may be found to have prostate cancer but who had not previously sought medical help.

6. Appendix

6.1. Imaging Codes

6.1.1. CT Scans

NICIP CODE

CT Abdomen with contrast	CABDC
CT Abdomen	CABDO
CT Abdomen with contrast	CABDOC
CT Abdomen/Pelvis with Contrast	CABPC
CT Abdomen and pelvis	CABPE
CT Abdomen and pelvis with contrast	CABPEC
CT Pelvis with Contrast	CPELC
CT Pelvis	CPELV
CT Pelvis with contrast	CPELVC

SNOMED CODE

CT Abdomen with contrast	169070004
CT Abdomen	169070004
CT Abdomen with contrast	32962002 169070004
CT Abdomen/Pelvis with Contrast	183881000000104
CT Abdomen and pelvis	419394006 183881000000104
CT Abdomen and pelvis with contrast	432370003 310111000000101 419394006
CT Pelvis with Contrast	169071000
CT Pelvis	169071000
CT Pelvis with contrast	74710000 169071000

6.1.2. MRI Scans

NICIP CODE

MRI Abdomen	MABDO
MRI Abdomen with contrast	MABDOC
MRI Abdomen and pelvis	MABPE
MRI Pelvis bladder	MBLPE
MRI Pelvis gynaecological	MPEGY
MRI Pelvis and hip Both	MPEHB
MRI Pelvis with Gadolinium	MPELC
MRI Pelvis	MPELV
MRI Pelvis with contrast	MPELVC
MRI Pelvis prostate	MPEST
MRI Prostate endocavity RF coil	MPREN
MRI Prostate with contrast	MPROSC
MRI Pelvis rectum	MRECT
MRI Pelvis SIJ Both	MSIJB
MRI Pelvis SIJ's	MSIJS

SNOMED CODE

MRI Abdomen	241621009
MRI Abdomen with contrast	432369004 241621009 311781000000103
MRI Abdomen and pelvis	419150008
MRI Pelvis bladder	1292009 2690005
MRI Pelvis gynaecological	826591000000107 2690005
MRI Pelvis and hip Both	432672003 241639000 314581000000108
MRI Pelvis with Gadolinium	2690005
MRI Pelvis	2690005
MRI Pelvis with contrast	433138001 2690005 314571000000106
MRI Pelvis prostate	75691003 2690005
MRI Prostate endocavity RF coil	448048002 774471000000100
MRI Prostate with contrast	70952500

	90603100000010
MRI Pelvis rectum	24162900
	269000
MRI Pelvis SIJ Both	42007800
	269000
MRI Pelvis SIJ's	269000

6.1.3. Ultrasounds

NICIP CODE

US Transrectal prostate	UPEPR
US Transrectal Prostate & Biopsy	UPEPRB
US Prostate	UPEST
US Prostate	UPROS
US Transrectal prostate	UTRPT
US Guided biopsy prostate transrectal	UTRPTB

SNOMED CODE

US Transrectal prostate	241487002
US Transrectal Prostate & Biopsy	183611000000107
US Prostate	241487002
US Prostate	241487002
US Transrectal prostate	22034001
	241487002
US Guided biopsy prostate transrectal	431605004
	241487002
	320121000000103

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