

Protecting and improving the nation's health

National Cancer Intelligence Network Be Clear on Cancer: Oesophago-gastric cancer awareness regional pilot campaign: Interim evaluation report

Interim evaluation results

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

Public Health England Wellington House 133-155 Waterloo Road London SE1 8UG Tel: 020 7654 8000 www.gov.uk/phe Twitter: @PHE_uk Facebook: www.facebook.com/PublicHealthEngland

Prepared by: National Cancer Intelligence Network For queries relating to this document, please contact: enquiries@ncin.org.uk

© Crown copyright 2015

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit OGL or email psi@nationalarchives.gsi.gov.uk. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned. Any enquiries regarding this publication should be sent to enquiries@ncin.org.uk.

Published July 2015 PHE publications gateway number: 2015177

This document is available in other formats on request. Please call 020 7654 8158 or email enquiries@ncin.org.uk

Corporate member of Plain English Campaign
Committed to clearer communication
339

The intelligence networks

Public Health England operates a number of intelligence networks, which work with partners to develop world-class population health intelligence to help improve local, national and international public health systems.

National Cancer Intelligence Network

The National Cancer Intelligence Network (NCIN) is a UK-wide initiative, working to drive improvements in standards of cancer care and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research.

National Cardiovascular Intelligence Network

The National Cardiovascular Intelligence Network (NCVIN) analyses information and data and turns it into meaningful timely health intelligence for commissioners, policy makers, clinicians and health professionals to improve services and outcomes.

National Child and Maternal Health Intelligence Network

The National Child and Maternal Health Intelligence Network (NCMHIN) provides information and intelligence to improve decision-making for high-quality, cost-effective services. Its work supports policy makers, commissioners, managers, regulators, and other health stakeholders working on children's, young people's and maternal health.

National Mental Health, Dementia and Neurology Intelligence Network

The National Mental Health Intelligence Networks (NMHDNIN) brings together the distinct National Mental Health Intelligence Network, the Dementia Intelligence Network and the Neurology Intelligence Network under a single programme. The Networks work in partnership with key stakeholder organisations. The Networks seeks to put information and intelligence into the hands of decision makers to improve mental health and wellbeing, support the reduction of risk and improve the lives of people living with dementia and improve neurology services.

National End of Life Care Intelligence Network

The National End of Life Care Intelligence Network (NEoLCIN) aims to improve the collection and analysis of information related to the quality, volume and costs of care provided by the NHS, social services and the third sector to adults approaching the end of life. This intelligence will help drive improvements in the quality and productivity of services.

Contents

About Public Health England	2
The intelligence networks	2
Contents	4
Executive summary	5
Introduction	9
Public awareness and knowledge	10
Campaign communication Knowledge of oesophago-gastric cancer symptoms Action taken as a result of the campaign Urgent GP referrals for suspected cancer and related cancer diagnoses	11 11 11 12
Methods Urgent GP referrals for suspected cancer Cancer diagnoses resulting from an urgent GP referral for suspected cancer Conversion rate Cancer diagnoses recorded in the Cancer Waiting Times database Detection rate Appendix 1: List of tables	12 18 24 32 39 48 56
Appendix 2: List of figures	58

Executive summary

A regional oesophago-gastric cancer awareness campaign ran in the North East of England (Tyne Tees TV and Borders TV regions) from 10 February to 9 March 2014. The campaign's primary key message was 'Having heartburn, most days, for three weeks or more could be a sign of cancer – tell your doctor', with a secondary message of 'if food is sticking when you swallow, tell your doctor'.

A full and final evaluation report for the regional pilot oesophago-gastric campaign will be published when the analysis of all metrics is complete. In advance of the final evaluation report, this interim report provides the results available to date.

The oesophago-gastric cancer awareness regional pilot campaign was well recognised across all channels. Prior to the campaign, awareness of symptoms was low but afterwards knowledge increased significantly.

The campaign also appears to have caused an increase in the number of urgent GP referrals for suspected upper GI cancers in the regional pilot area. There is some evidence that the campaign may have affected the detection rate, particularly for those aged in their 60s, however, there is little or no evidence of an impact on the number of cancers diagnosed after an urgent GP referral for suspected upper GI cancers, the conversion rate or the number of CWT recorded cancers.

The following points form a summary of the main results detailed in this report:

Public awareness and knowledge

- 1.1 A quarter (25%) were confident in their knowledge of oesophago-gastric cancer symptoms at the pre stage and this increased to more than one in three (35%) in the pilot region at the post stage. The control region did not experience this increase, suggesting that the positive pilot region results were a consequence of the campaign.
- 1.2 The proportion who stated that persistent heartburn was a definite warning sign of oesophago-gastric cancer increased significantly from one in ten (11%) to three in ten (31%). Likewise, persistent indigestion as a definite warning sign increased from 9% to 25% and food sticking increased from 23% to 38%.

Urgent GP referrals for suspected upper GI cancers

- 1.3 The regional pilot oesophago-gastric cancer awareness campaign appears to have resulted in a large increase in referrals for suspected upper GI cancers, from February to April 2013 to February to April 2014.
- 1.4 Within the regional pilot area, there was a 52% increase in referrals for suspected upper GI cancers. This compares to an increase of 17% in the control area.
- 1.5 For suspected head and neck cancers¹, there was also a larger increase in referrals for the regional pilot area (27%) compared to the control area (16%), however, the difference between the two areas was smaller than for upper GI referrals.
- 1.6 Larger increases in suspected upper GI cancer referrals were found for those aged in their 50s (85%) and 60s (69%), with a smaller increase for those aged 80 and over (18%).
- 1.7 The increase in upper GI referrals was larger for men (63%) than for women (44%), resulting in smaller differences, between men and women, in the number and rate of referrals.

Conversion rate of urgent GP referrals for suspected upper GI cancers

- 1.8 For February to April 2014, compared to February to April 2013, there is little evidence that the regional pilot oesophago-gastric cancer awareness campaign had an impact on either the numbers of cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers or on the conversion rates for these referrals, for any of oesophageal, stomach or upper GI cancers.
- 1.9 There was a large amount of natural variation in the number of oesophageal, stomach and upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers, reflecting the relatively small numbers of such cases, both for the regional pilot area and control area.
- 1.10 There were no statistically significant changes in the number of diagnoses resulting from an urgent GP referral for suspected upper GI cancers, either overall

¹ For an 'other referrals' comparator in the cancer waiting times analysis, we have used referrals for suspected head and neck cancers for recent evaluations, as this is a common referral type less likely to have been affected by campaigns, with no specific campaign directed at it.

in the regional pilot area or by age group or sex. Neither were there any significant changes in the control area.

- 1.11 However, for those aged 60 to 69, the percentage changes in the number of diagnoses resulting from an urgent GP referral for suspected upper GI cancers were quite large, although the numbers were small, with an 85% increase for oesophageal cancer and a 59% increase for upper GI cancers.
- 1.12 Long-term trends showed decreasing conversion rates for urgent GP referrals for suspected upper GI cancers both for the regional pilot area and control area.
- 1.13 Within the regional pilot area, the stomach cancer conversion rate decreased significantly by 0.5 percentage points, from 0.9% to 0.4% and the upper GI cancer conversion rate decreased significantly by 1.1 percentage points, from 4.1% to 3.0%. As these decreases were slightly larger than those seen for the control area, there may have been a small additional decrease during the campaign period.
- 1.14 There were no statistically significant changes in either oesophageal or upper GI cancer conversion rates by age group.
- 1.15 By sex, the only significant change was a decrease in the upper GI cancer conversion rate for men, although this appeared to largely reflect the longer term decreasing trend.

Detection rate for upper GI cancers

- 1.16 There is some evidence that the regional pilot oesophago-gastric cancer awareness campaign may have had an impact on detection rate, but not the number of CWT recorded cancers, for oesophageal, stomach and upper GI cancers, for March to May 2014, compared to the same months in 2013, particularly for those aged in their 60s.
- 1.17 However, results were based on a relatively small number of oesophageal, stomach and upper GI cancer diagnoses, with trends in CWT recorded diagnoses and detection rates demonstrating much inherent variation. It is also important to remember that, for these metrics, it is particularly difficult to define a campaignaffected period, due to varying diagnostic routes and time-periods.
- 1.18 For the regional pilot area, there were small decreases in the number of the oesophageal (6%), stomach (10%) and upper GI (4%) cancer diagnoses recorded in the CWT data, but these changes were not statistically significant. Similarly, for the control area, the smaller changes were not significant.

- 1.19 There were no significant changes in the number of cancers, for any age-group or by sex.
- 1.20 There were increases in the detection rates in the regional pilot area, ranging from 3.3 percentage points, for upper GI cancer, to 9.5 percentage points, for oesophageal cancer, however, none of these changes were statistically significant and nor were any changes by sex.
- 1.21 There were statistically significant increases in the detection rates for those aged 60 to 69 for both oesophageal and stomach cancers, as well as all upper GI cancers combined. The detection rate increased by:
 - 40 percentage points for oesophageal cancer, from 46% to 86%;
 - 50 percentage points for stomach cancer, from 21% to 71%; and
 - 29 percentage points for upper GI cancer, from 35% to 64%.

Introduction

Be Clear on Cancer awareness campaigns

Be Clear on Cancer campaigns have been developed to improve early diagnosis by raising awareness of the symptoms of cancer and encouraging people with those symptoms to see their GP early.

The Be Clear on Cancer brand has been used to promote awareness and early diagnosis of specific cancer types since January 2011. The oesophago-gastric cancer local campaign was developed using the Be Clear on Cancer branding and ran from April to July 2012. Since 2013 the programme has been led by Public Health England, working in partnership with the Department of Health and NHS England. Each campaign is tested locally and then regionally, with a view to rolling them out nationally if they prove to be effective.

For each Be Clear on Cancer campaign there is a comprehensive evaluation process. Data is collected on a number of metrics to reflect possible campaign impact. These include whether campaigns are raising awareness of signs and symptoms of cancer; more people are going to their GPs with the symptoms highlighted by the campaign; more people are being referred urgently for suspected cancer; there is an increase in diagnostic activity; those referred urgently for suspected cancer are diagnosed with cancer; there are increases in the number of cancers diagnosed and if there is evidence of a shift towards earlier stage disease.

Oesophago-gastric cancer awareness regional pilot campaign

A local Be Clear on Cancer campaign featuring the symptoms of oesophago-gastric cancer was developed and run in eight areas from April to July 2012. After evaluation of the local campaign it was decided to develop a regional campaign which subsequently ran from February to March 2014.

A mixture of TV, radio, press, poster, out of home (GP surgeries) and digital advertising was used alongside a public relations campaign. Leaflets to target those aged over 50 (as this group are most at risk of oesophago-gastric cancer) were distributed via GP surgeries and at football matches. Direct mail was also sent to men in this region, as they are more at risk of the disease than women.

Public awareness and knowledge

Research methodology

The research was conducted through pre and post campaign surveys in test and control areas. The test area was the North East for the oesophago-gastric cancer campaign. The rest of England (excluding the North West, as a similar ovarian cancer regional pilot campaign ran at the same time in this area) provided the control area. Samples of approximately 300 adults aged 50 plus were interviewed face to face in the pilot area at both pre and post stages.

The research was conducted by TNS-BMRB, an independent market research agency specialising in social research. The survey was a face to face survey among a representative sample of adults aged 50 plus in England. This was supplemented with additional face to face interviews in the North East pilot region. The pre campaign interviews took place between 13 January 2014 and 2 February 2014 and the post campaign interviews took place between 17 March 2014 and 6 April 2014.

Campaign awareness and recognition

Over eight in ten (84%) had seen recent cancer publicity at the pre stage in the pilot region with a similar proportion having seen cancer publicity in the control (79%). An indicative increase occurred at the post stage among pilot region respondents (from 84% to 87%). This resulted in a significantly higher level of awareness for pilot region respondents when compared to the control at the post stage, suggesting that the campaign has had an impact on awareness levels.

There was a significant increase pre to post campaign in the proportion of pilot region respondents who had recently seen publicity relating to heartburn (0% to 13%). Recall of this publicity remained at zero in the control region at both research stages, indicating that the increase in the pilot region was as a result of the campaign. There was also an increase in those in the pilot region recalling publicity that encouraged them to see their doctor (6% to 13%) while the corresponding results remained static among the control group.

In the pilot region eight in ten (79%) recognised at least one of the advertisements from the oesophago-gastric cancer campaign. This was the highest level achieved across the six regional pilots to date. The TV (69%) and press advertisements (35%) achieved above average recognition, while recognition of the radio advertising (26%) and leaflet (19%) was in line with average

Campaign communication

The call to action message ('go to doctor') was spontaneously taken out by over half of respondents (56%) after seeing the advertisements. The messages concerning symptoms were less commonly received. Less than one in six (15%) mentioned being aware of signs or symptoms and only 7% mentioned heartburn or indigestion for three weeks or more. When prompted, almost nine in ten took out messages relating to heartburn and food sticking.

A quarter (25%) were confident in their knowledge of oesophago-gastric cancer symptoms at the pre stage and this increased to more than one in three (35%) in the pilot region at the post stage. The control region did not experience this increase, suggesting that the positive pilot region results were a consequence of the campaign. Despite the increase in the pilot region, confidence levels remained substantially below average at both stages (25% compared with 40% average pre and 35% compared with 50% post) highlighting the need for a national campaign.

Knowledge of oesophago-gastric cancer symptoms

Positive increases in prompted knowledge of key symptoms were seen among those in the pilot region. The proportion who stated that persistent heartburn was a definite warning sign of oesophago-gastric cancer increased significantly from one in ten (11%) to three in ten (31%). Likewise, persistent indigestion as a definite warning sign increased from 9% to 25% and food sticking increased from 23% to 38%. None of these increases in understanding were seen among those in the control region, pointing to the campaign as responsible for this change.

Action taken as a result of the campaign

Eight in ten (82%) agreed that the advertising would make them more likely to go to the GP with any symptoms featured in the campaign. This was around the average level for regional pilot campaigns. One in six (16%) of those who recognised the campaign stated that they had taken some action, with the most common action being to talk to friends or family members to advise them (7%). Just fewer than one in twenty (4%) said they had made an appointment with their GP.

Urgent GP referrals for suspected cancer and related cancer diagnoses

This chapter considers whether the regional pilot oesophago-gastric cancer awareness campaign had an impact on the number of urgent GP referrals for suspected upper gastrointestinal (upper GI) cancers or on Cancer Waiting Times (CWT) recorded information on upper GI cancer diagnoses.

Methods

Metric definitions

Analysis considers the following metrics, all derived from the Cancer Waiting Times data:

Urgent GP referrals for suspected cancer (R)

Urgent GP referrals for suspected upper GI cancers, presented by month first seen. (Also known as two week wait (TWW) referrals.)

Cancer diagnoses resulting from an urgent GP referral for suspected cancer (TC)

Those upper GI cancer diagnoses (ICD10 C15-C16, C22-C25) resulting from an urgent GP referral for suspected upper GI cancers, presented by month first seen. (Also known as two week wait (TWW) cancers, or 62 day cancers [based on the waiting times target from urgent GP referral to first treatment].)

Conversion rate (C)

Percentage of urgent GP referrals for suspected upper GI cancers resulting in a diagnosis of upper GI cancer, presented by month first seen.

Cancer diagnoses recorded in the Cancer Waiting Times database (CC)

All upper GI cancer diagnoses recorded in the CWT database (CWT-Db), presented by month of first treatment.

(Also known as CWT cancers, or 31 day cancers [based on the waiting times target from decision to treat to first treatment].)

Detection Rate (D)

Percentage of CWT-Db recorded upper GI cancer diagnoses which resulted from an urgent GP referral for suspected upper GI cancers, presented by month of first treatment.

When patients are referred, cancer is only a suspicion, with the cancer or other diagnoses to be confirmed. As a result, specific cancer type diagnoses are unknown and so urgent GP referrals for suspected cancer are recorded against a limited number of broad cancer types. One of these broad cancer types is upper GI cancers, incorporating oesophageal and gastric (also referred to as stomach) cancers, along with several other types of cancer (eg. liver and pancreatic). Therefore, these analyses are repeated for diagnoses of all upper GI cancers, oesophageal cancer (ICD10 C15) and stomach cancer (ICD10 C16), although all related to all referrals for suspected upper GI cancers.

Defining the campaign period

The campaign ran from 10 February to 9 March 2014. Therefore we might expect an impact on referrals first seen during the campaign months (February and March) and, allowing for reasonable delays from campaign activity to referral, in the month following the end of the campaign (April). These delays may occur for several reasons, for example some patients may need to see the campaign materials multiple times before reacting; some patients may need to wait for a GP appointment, especially if they prefer a convenient time or a specific GP, and so may be seen by the GP after the campaign ended.

Dates are based on 'date first seen' as recorded in the CWT-Db, reflecting the date seen in secondary care rather than primary care, and referrals made towards the end of the campaign may not have been seen in secondary care until after the campaign ended.

Therefore the period from February to April 2014 was considered as the 'campaign period' for referrals, and also for cancer diagnoses resulting from an urgent GP referral for suspected cancer and for the conversion rate, as these were defined using the date first seen recorded for the referral.

There is a necessary period of time between the date first seen following an urgent GP referral for suspected cancer and the start of treatment. This is because of the time required to perform diagnostic tests or to plan and arrange treatment, for example, and will vary for different patients and trusts. This meant that, for cancer diagnoses recorded in the CWT database and the detection rate, it was not possible to identify a clear period relating directly and specifically to the campaign. Diagnoses in the early campaign months could include those resulting from referrals prior to the campaign or at the beginning of the campaign. Similarly, diagnoses in the months after the campaign could include those resulting from referrals during the campaign or after the end of the campaign. Taking into consideration the average interval from date first seen to treatment start date, and the waiting times target of 62 days from urgent GP referral to first treatment, the period from March to May was thought to best represent the

campaign effect. This period should include many of the diagnoses resulting from campaign period referrals without too many diagnoses from pre- or post-campaign referrals.

Therefore the period from March to May 2014 was considered as the 'campaign period' for upper GI cancer diagnoses recorded in the CWT-Db and for the detection rate.

Comparator referral types

The number of urgent GP referrals for suspected cancer has continued to increase year-on-year. This means that the evaluation's comparison of the change from one year to the next is likely to reflect a combination of the campaign's impact and the general increase in referrals. It is not possible to separate these two reasons for any particular referral type, but it is useful to consider the change in referrals for other suspected cancers to provide an indication of increase that was not associated with the campaign.

However, due to the impact of previous regional and national Be Clear on Cancer campaigns, it was necessary to exclude a number of campaign-affected referral types from this comparison. Therefore, analysis of the change in referrals for other suspected cancers only considered referrals for suspected head and neck cancers.

Guide to presentation

As the analysis considers a number of breakdowns, the following numbering system has been used throughout the chapter:

- 1. Total
- 2. By age
- 3. By sex

For total referrals only, with nested results to consider how changes in upper GI referrals may differ from general referral changes:

- a. Referrals for suspected upper GI cancers
- b. Referrals for suspected head and neck cancers

For other metrics, with nested results to consider how changes for oesophageal, stomach and upper GI cancers may differ:

- a. Results for oesophageal cancer
- b. Results for stomach cancer
- c. Results for upper GI cancers

For the campaign period (February to April 2014), the number of urgent GP referrals for suspected upper GI cancers were presented, alongside comparable results for the same months in the previous year. Year-on-year percentage change figures were

calculated based on these referral counts, as this reflected the absolute change in levels of activity. A referral rate was also presented, in order to provide some context to explain how differences in the percentage change between areas (or ages) may relate differing referral patterns. Differences in referral rates would suggest there may be underlying differences in referral practices or cancer incidence between groups. It was not possible to assess whether any apparent campaign impact may have resulted from these underlying differences.

Data for upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers and conversion rate were presented for the campaign period (February to April 2014), alongside comparable results for the same months in the previous year and the year-on-year percentage point change in the rate.

Data for upper GI cancer diagnoses recorded in the CWT-Db and detection rate were presented for the campaign period (March to May 2014), alongside comparable results for the same months in the previous year and the year-on-year percentage point change in the rate.

As this report considers a regional pilot campaign, most results were presented for the regional pilot area only. For the purposes of analysis this area was defined using the former North of England Cancer Network area. For overall results, comparison is made to a control area, which was defined as England excluding both the regional pilot area and local pilot areas. For the oesophago-gastric campaign, the local pilot areas were the following 25 former PCTs: Dudley; County Durham; Darlington; Sandwell; Wolverhampton City; Wandsworth; Newcastle; North Tyneside; Northumberland Care Trust; Cumbria Teaching; South Tyneside; Gateshead; Sunderland Teaching; Hartlepool; Middlesbrough; Redcar and Cleveland; Stockton-on-Tees Teaching; Bedfordshire; Cambridgeshire; Peterborough; Suffolk; Norfolk; Great Yarmouth and Waveney; Hertfordshire; and Luton.

Statistical methods

Urgent GP referral rates vary greatly with age. To take account of differing age profiles of patients in different areas, the rates presented here were directly age-standardised and presented as rates per 100,000 population using the 2013 European Standard Population weights. Age-specific crude referral rates were presented for the age breakdown.

For referrals and cancer diagnoses, the reported p-values were obtained from a likelihood ratio test. The null hypothesis was that the number of urgent GP referrals or cancer diagnoses in the campaign period in 2014 and the same months in 2013 came from the same Poisson distribution.

For conversion and detection rates, the reported p-values are obtained from a twosample proportion test. The null hypothesis was that the rate in the campaign period in 2014 was equal to the equivalent rate in 2013.

P-values less than 0.05 indicate a statistically significant difference between the two periods, at the 95% level. This chapter provides results from a large number of statistical tests. Please note that, with a considered significance level of 95%, you could expect 5% of tests to provide a "statistically significant" result by chance.

Data notes

Please note that there were a few data quality issues:

For January to April 2012, no CWT data was uploaded by Imperial College Healthcare NHS Trust. However, this issue is expected to have a very limited impact on the results presented here, as it should only result in small differences to the results presented in the control area trend charts.

For October to December 2012, some referral data was not uploaded for Central Manchester University Hospitals NHS Foundation Trust, however, this issue is expected to have a very limited impact on the results presented here, as it should only result in small differences to the results presented in the control area trend charts.

For March 2013, no treatment data was uploaded by Chelsea and Westminster Hospital NHS Foundation Trust. However, this issue is expected to have a limited impact on the results presented here, as it should only result in small differences to the results presented for the control area's comparator period (February to April 2013 or March to May 2013), and in the control area trend charts.

For Colchester Hospital University NHS Foundation Trust, it was reported that some Cancer Waiting Times records, possibly until June 2014, were submitted incorrectly. A subsequent investigation into this issue confirmed that only a small number of records were affected. Data used for these analyses are as submitted but, considering the small number of records affected, this issue should not have an impact on these results.

Of 312,015 TWW referrals for suspected upper GI cancers, 302 were excluded from analyses (120 due to missing demographic information; 182 due to null or invalid postcodes).

Of 275,878 TWW referrals for suspected head and neck cancers, 330 were excluded from the analysis (148 due to missing demographics; 182 due to null or invalid postcodes).

Of 21,093 cancers diagnoses resulting from an urgent GP referral for suspected upper GI cancers, including 15,551 upper GI cancer diagnoses of which there were 7,909 oesophageal cancer diagnoses and 2,777 stomach cancer diagnoses, 26 were excluded from analyses (17 due to missing demographic information; nine due to null or invalid postcodes).

Of 45,317 CWT recorded upper GI cancer diagnoses, including 15,932 oesophageal cancer diagnoses and 8,735 stomach cancer diagnoses, 93 were excluded from analyses (70 due to missing demographic information; 23 due to null or invalid postcodes).

Monthly diagnoses, conversion rate and detection rate data can be quite variable because they are based on only a small number of cancer diagnoses, particularly for some of the smaller breakdowns. For this reason, some of the age groups are not plotted on the monthly trend charts, and some trend charts are quarterly rather than monthly.

Data Source

Cancer Waiting Times data was obtained from the National Cancer Waiting Times Monitoring Dataset, provided by NHS England.

Urgent GP referrals for suspected cancer

Total results

Figures R1ai and R1aii both show a general upward trend in referrals for suspected upper GI cancers. Although, for regional pilot areas (Figure R1ai), there was also a notable increase in February to April 2014, particularly in March. This result is also demonstrated in Table R1a, with statistically significant increases in urgent GP referrals for suspected upper GI cancers for both the regional pilot area and the control area, for February to April 2014 compared to the same months in 2013, however, the 52% increase within the regional pilot area, from 2,795 referrals in February to April 2013 to 4,257 referrals in the same months in 2014, was much larger than the 17% increase in the control area.

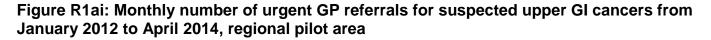
Referrals for suspected head and neck cancers, a control referral type, also exhibit a general increasing trend (Figures R1bi and R1bii). Table R1b shows that, from 2013 to 2014, the increase for February to April was statistically significant for both the regional pilot area and the control area. Although the increase of 27% in the regional pilot area was again larger than the 16% increase in the control area, it was more similar to the control area increase than for suspected upper GI cancer referrals.

Table R1a: Number of urgent GP referrals for suspected upper GI cancers, with referralrate and percentage change in number of referrals, from February to April 2013 andFebruary to April 2014

		February to April					
Overall		Referrals	% Change	P-value	Referral rate		
		in number		r-value	Estimate	95% CI	
Regional pilot	2013	2,795	52.3	<0.001	401.4	(386.5, 416.7)	
area	2014	4,257	52.5	<0.001	611.7	(593.3, 630.6)	
Control area	2013	26,143	17.0	<0.001	280.8	(277.4, 284.3)	
Control area	2014	30,585	17.0	<0.001	327.9	(324.2, 331.6)	

Table R1b: Number of urgent GP referrals for suspected head and neck cancers, with referral rate and percentage change in number of referrals, from February to April 2013 and February to April 2014

	•	February to April						
Overall		Referrals	% Change		Referral rate			
		Releffais	in number	P-value	Estimate	95% CI		
Regional pilot	2013	1,844	44 26.6	<0.001	259.7	(247.9, 272.0)		
area	2014	2,335	20.0	<0.001	331.2	(317.8, 345.0)		
Control area	2013	23,860	15.9	<0.001	246.2	(243.1, 249.4)		
Control area	2014	27,647	15.9	<0.001	285.8	(282.4, 289.3)		



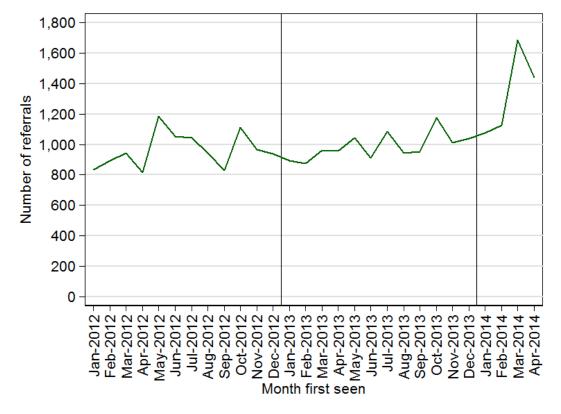
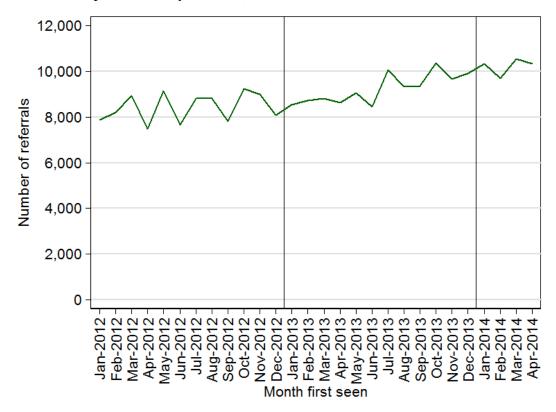
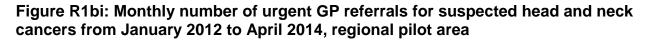


Figure R1aii: Monthly number of urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014, control area





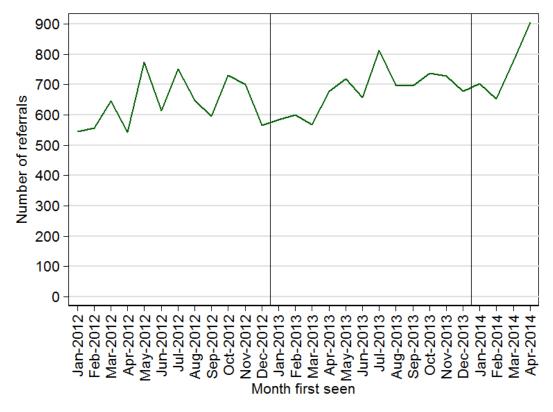
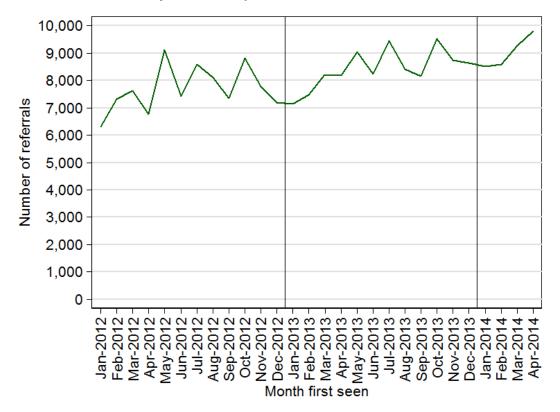


Figure R1bii: Monthly number of urgent GP referrals for suspected head and neck cancers from January 2012 to April 2014, control area

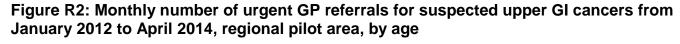


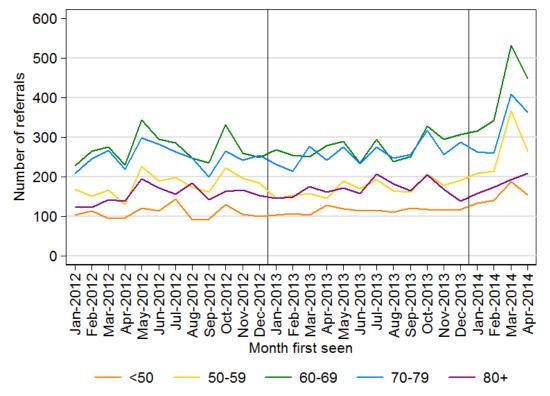
Age results

For February to April 2014, compared to the same months in 2013, Table R2 shows that there were statistically significant increases in referrals for suspected upper GI cancers for all age-groups. The largest increases were seen for those aged in their 50s (85%, from 337 referrals to 483) and 60s (69%, from 455 to 844). For those aged 80 and over the increase was smaller (18%), with the increase in 2014 also less clear on Figure R2.

Table R2: Number of urgent GP referrals for suspected upper GI cancers, with referral
rate and percentage change in number of referrals, from February to April 2013 and
February to April 2014, regional pilot area, by age

		February to April						
Age g	roup	Referrals	% Change	P-value	Referral rate			
		Releffais	in number	in number		95% CI		
<50	2013	337	43.3	<0.001	72.8	(65.3, 81.1)		
<50	2014	483	43.3	43.3	43.3	<0.001	104.4	(95.3, 114.1)
50-59	2013	455	85.5	<0.001	470.1	(427.9, 515.4)		
50-59	2014	844		00.0	00.0	<0.001	872.0	(814.2, 932.9)
60-69	2013	784	68.8	<0.001	929.3	(865.3, 996.6)		
00-09	2014	1,323	00.0	00.0 <0.001	1,568.1	(1,484.7, 1,654.9)		
70-79	2013	733	40.8	<0.001	1,253.8	(1,164.7, 1,348.0)		
10-19	2014	1,032	40.0	<0.001	1,765.3	(1,659.2, 1,876.4)		
80+	2013	486	18.3	0.006	1,387.0	(1,266.4, 1,515.9)		
00+	2014	575		0.000	1,640.9	(1,509.5, 1,780.7)		





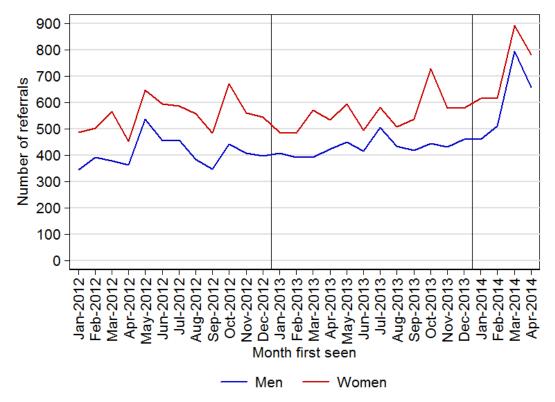
Sex Results

Table R3 shows that the increase in suspected upper GI cancer referrals, from February to April 2013 to February to April 2014, was larger for men (63%, from 1,206 referrals to 1,964) than for women (44%, from 1,589 to 2,293). The number and rate of referrals remained higher for women throughout the period, but this larger increase for men reduced the difference.

Table R3: Number of urgent GP referrals for suspected upper GI cancers, with referral rate and percentage change in number of referrals, from February to April 2013 and February to April 2014, regional pilot area, by sex

		February to April					
Sex	(Referrals	% Change	P-value	Referral rate		
		Releffais	in number	r-value	Estimate	95% CI	
Men	2013	13 1,206 62		<0.001	379.8	(358.3, 402.1)	
IVIET	2014	1,964	62.9	<0.001	607.3	(580.4, 635.1)	
Women	2013 1,589		44.3	<0.001	423.0	(402.4, 444.4)	
women	2014	2,293	44.3	<0.001	616.1	(591.1, 642.0)	

Figure R3: Monthly number of urgent GP referrals for suspected upper GI cancers from January 2010 to April 2014, regional pilot area, by sex



Cancer diagnoses resulting from an urgent GP referral for suspected cancer

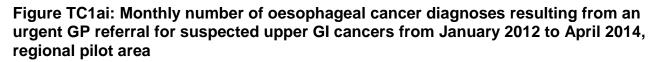
Total results

For February to April 2014, compared to the same months in 2013, table TC1 shows that, overall in the regional pilot area, there were no statistically significant changes in the number of oesophageal, stomach or upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers. Similarly, there were no significant changes in the control area.

For the regional pilot area, figures TC1ai, TC1bi and TC1ci show a large amount of natural monthly or quarterly variation in the number of diagnoses resulting from an urgent GP referral for suspected upper GI cancers, reflecting the relatively small numbers of such cases. Even in the larger control area, a large amount of variation is still evident (Figures TC1aii, TC1bii and TC1cii).

Table TC1: Number of oesophageal, stomach and upper GI cancer diagnoses resulting
from urgent GP referrals for suspected upper GI cancers, with percentage change in
number of cancers, from February to April 2013 and February to April 2014

		February to April				
Cancer type	Overall	TWW	cancers	% Change in	P-value	
		2013	2014	number	F-value	
Oesophageal	Regional pilot area	62	71	14.5	0.435	
cancer	Control area	658	686	4.3	0.445	
Stomach	Regional pilot area	26	18	-30.8	0.227	
cancer	Control area	238	202	-15.1	0.086	
Upper GI	Regional pilot area	114	126	10.5	0.438	
cancer	Control area	1,341	1,304	-2.8	0.472	



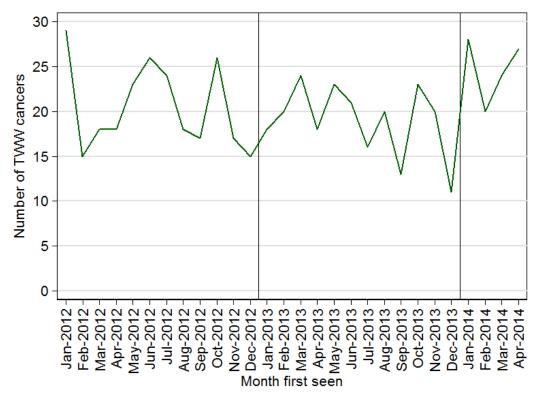
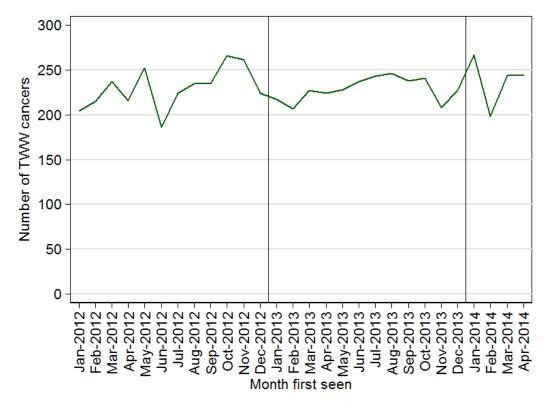
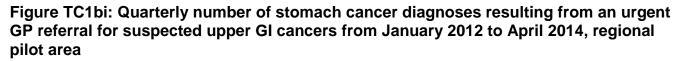


Figure TC1aii: Monthly number of oesophageal cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012 to April 2014, control area





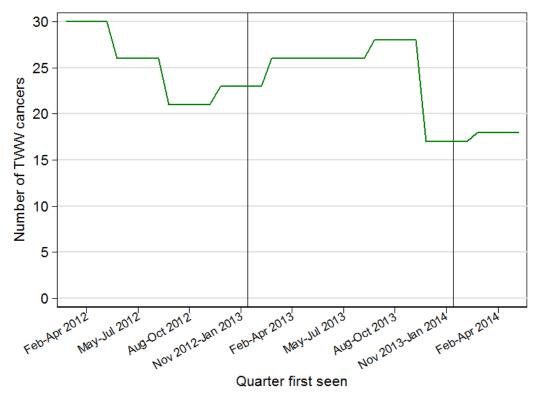
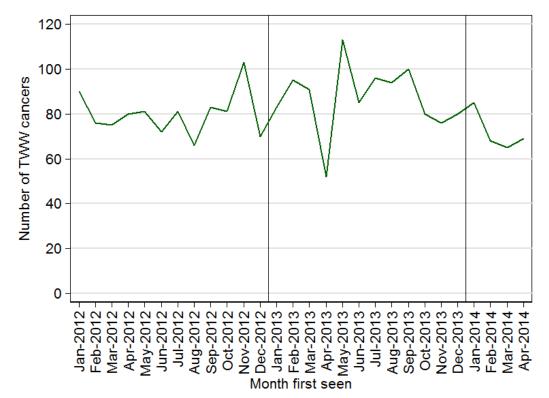
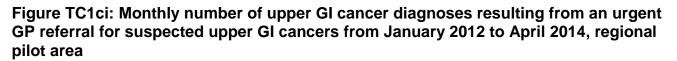


Figure TC1bii: Monthly number of stomach cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012 to April 2014, control area





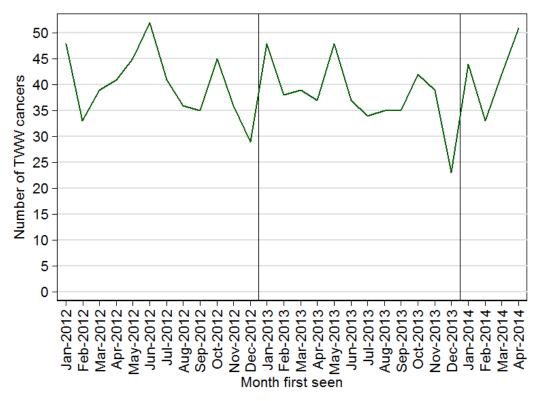
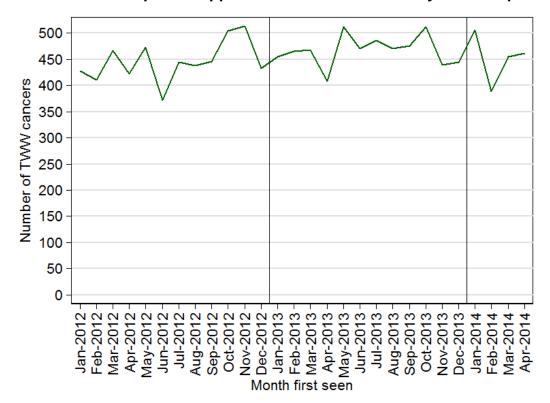


Figure TC1cii: Monthly number of upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012to April 2014, control area



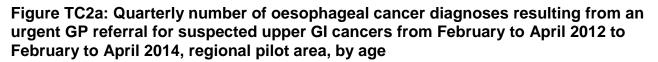
Age results

The number of stomach cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers was too small to consider breakdowns by age group.

With figures TC2a and TC2c showing a large amount of variation, there were no statistically significant changes for any age groups in the number of oesophageal or upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers, from February to April 2013 to February to April 2014 (Table TC2), however, for those aged 60 to 69, the percentage changes in the number of such diagnoses were quite large, although the numbers were small, with an 85% increase for oesophageal cancer and a 59% increase for upper GI cancers.

Table TC2: Number of oesophageal and upper GI cancer diagnoses resulting from urgent GP referrals for suspected upper GI cancers, with percentage change in number of cancers, from February to April 2013 and February to April 2014, regional pilot area, by age

		February to April				
Cancer type	Age group	TWW cancers		% Change in	P-value	
		2013	2014	number	r-value	
	<60	9	14	55.6	0.295	
Oesophageal	60-69	13	24	84.6	0.068	
cancer	70-79	19	18	-5.3	0.869	
	80+	21	15	-28.6	0.316	
	<60	15	17	13.3	0.724	
Upper GI	60-69	27	53	59.3	0.055	
cancer	70-79	35	39	11.4	0.642	
	80+	37	27	-27.0	0.210	



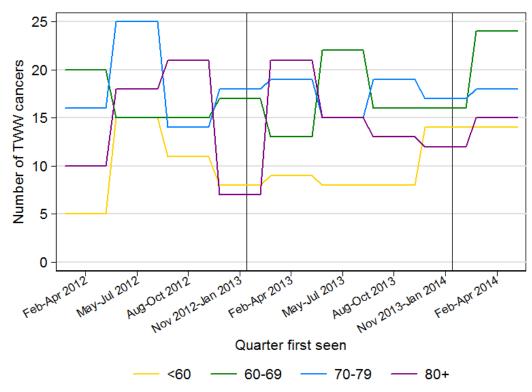
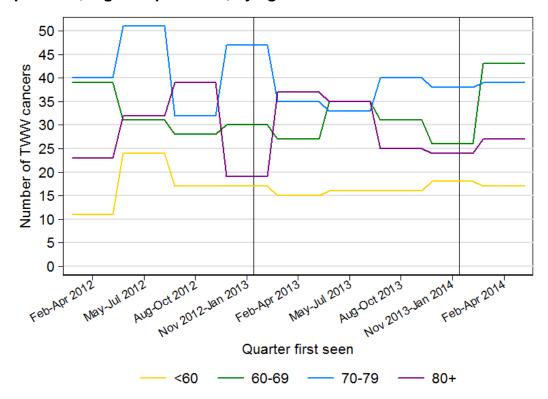


Figure TC2c: Quarterly number of upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by age



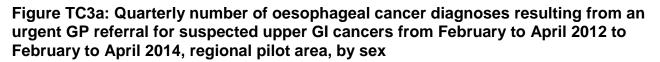
Sex Results

The number of stomach cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers was too small to consider breakdowns by sex.

For February to April 2014, compared to the same months in 2013, Table TC3 shows that there were no statistically significant changes by sex in the number of oesophageal or upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers.

Table TC3: Number of oesophageal and upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers, with percentage change in number of cancers, from February to April 2013 and February to April 2014, regional pilot area, by sex

		February to April				
Cancer type	Sex	TWW	cancers	% Change in	P-value	
		2013	2014	number	F-value	
Oesophageal	Men	46	51	10.9	0.612	
cancer	Women	16	20	25.0	0.505	
Upper GI	Men	75	81	8.0	0.631	
cancer	Women	39	45	15.4	0.513	



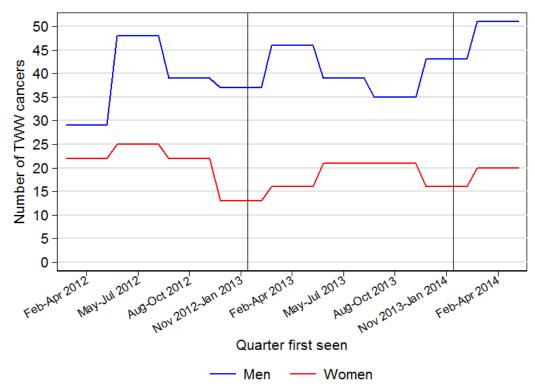
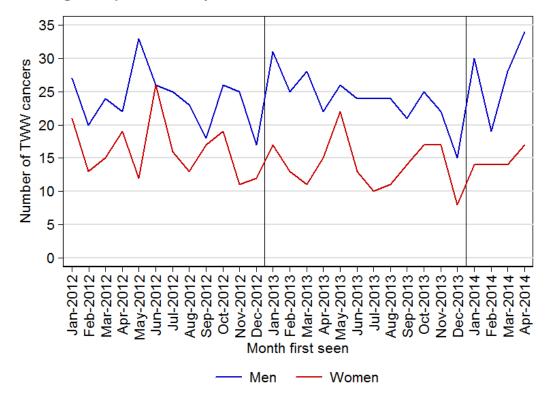


Figure TC3c: Monthly number of upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by sex



Conversion rate

Total results

Figures C1a-C1c show general long-term trends for decreasing conversion rates for urgent GP referrals for suspected upper GI cancers, for both regional pilot areas and control areas.

For February to April 2014, compared to February to April 2013, Table C1 shows that there were statistically significant decreases in the stomach and upper GI cancer conversion rates within the regional pilot area; the stomach cancer conversion rate decreased by 0.5 percentage points, from 0.9% to 0.4%; the upper GI cancer conversion rate decreased by 1.1 percentage points, from 4.1% to 3.0%. These changes were similar, although slightly larger, than significant decreases for the control area, for which there was also a significant decrease in the oesophageal cancer conversion rate. This suggests that the long-term decreasing trend accounts for much of the decrease in conversion rates, although there may have been a small additional decrease related to the large increases in referrals in the regional pilot area during the campaign period.

Table C1: Oesophageal, stomach and upper GI cancer conversion rates for urgent GP
referrals for suspected upper GI cancers, with change, from February to April 2013 and
February to April 2014

Cancer type	Overall	February to April						
		2013		2014				
		Conv. rate (%)	95% CI	Conv. rate (%)	95% CI	%-point change	P- value	
Oesophageal cancer	Regional pilot area	2.2	(1.7, 2.8)	1.7	(1.3, 2.1)	-0.6	0.097	
	Control area	2.5	(2.3, 2.7)	2.2	(2.1, 2.4)	-0.3	0.032	
Stomach cancer	Regional pilot area	0.9	(0.6, 1.4)	0.4	(0.3, 0.7)	-0.5	0.008	
	Control area	0.9	(0.8, 1.0)	0.7	(0.6, 0.8)	-0.2	<0.001	
Upper GI cancer	Regional pilot area	4.1	(3.4, 4.9)	3.0	(2.5, 3.5)	-1.1	0.011	
	Control area	5.1	(4.9, 5.4)	4.3	(4.0, 4.5)	-0.9	<0.001	

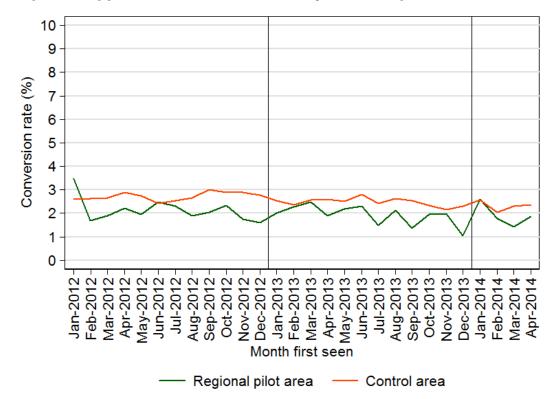
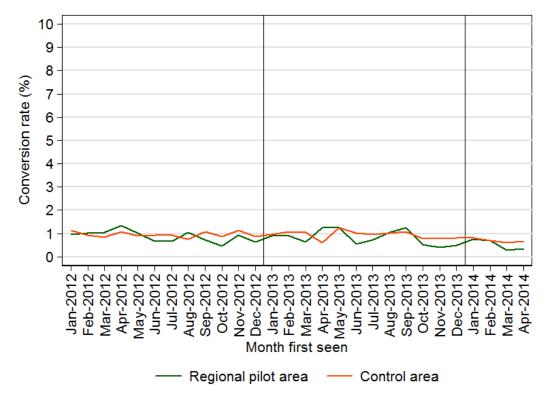


Figure C1a: Monthly oesophageal cancer conversion rates for urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014

Figure C1b: Monthly stomach cancer conversion rates for urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014



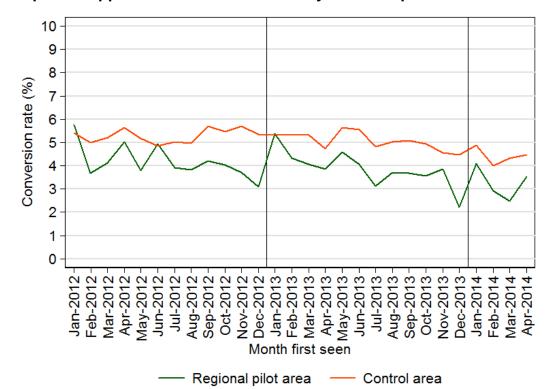


Figure C1c: Monthly upper GI cancer conversion rates for urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014

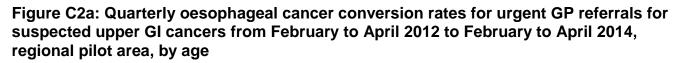
Age results

Due to small numbers, it was not possible to consider breakdowns of the stomach cancer conversion rate by age group.

The upper GI cancer conversion rate for those aged 80+ changed significantly, with a 2.9 percentage point decrease, from 7.6% to 4.7%, when comparing February to April 2014 to February to April 2013 (Table C2). There were no other statistically significant changes by age group in either oesophageal or upper GI cancer conversion rates between February to April 2013 and February to April 2014.

Table C2: Oesophageal and upper GI cancer conversion rates for urgent GP referrals for suspected upper GI cancers, with change, from February to April 2013 and February to April 2014, regional pilot area, by age

		February to April							
		2013		2014					
Cancer type	Age group	Conv.		Conv.		%-point	P-		
		rate	95% CI	rate	95% CI	change	value		
		(%)		(%)					
Oesophageal cancer	<60	1.1	(0.6, 2.1)	1.1	(0.6, 1.8)	-0.1	0.861		
	60-69	1.7	(1.0, 2.8)	1.8	(1.2, 2.7)	0.2	0.792		
	70-79	2.6	(1.7, 4.0)	1.7	(1.1, 2.7)	-0.8	0.220		
	80+	4.3	(2.8, 6.5)	2.6	(1.6, 4.3)	-1.7	0.125		
Upper GI cancer	<60	1.9	(1.2, 3.1)	1.3	(0.8, 2.0)	-0.6	0.263		
	60-69	3.4	(2.4, 5.0)	3.3	(2.4, 4.3)	-0.2	0.810		
	70-79	4.8	(3.5, 6.6)	3.8	(2.8, 5.1)	-1.0	0.304		
	80+	7.6	(5.6, 10.3)	4.7	(3.2, 6.7)	-2.9	0.047		



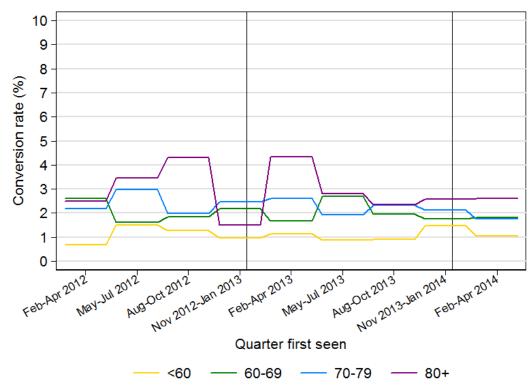
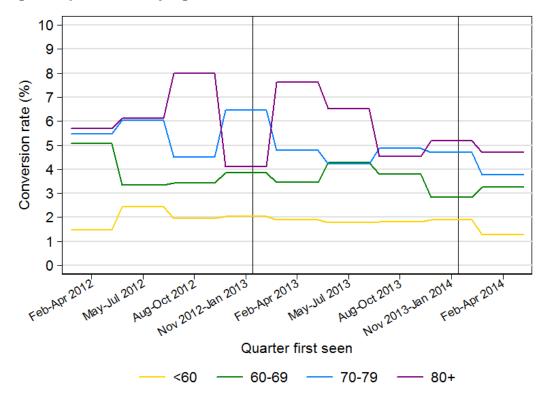


Figure C2c: Quarterly upper GI cancer conversion rates for urgent GP referrals for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by age



Be Clear on Cancer: Oesophago-gastric cancer awareness regional pilot campaign Interim evaluation results

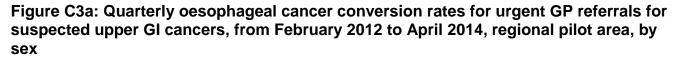
Sex Results

Due to small numbers, it was not possible to consider breakdowns of the stomach cancer conversion rate by sex.

From February to April 2013 to February to April 2014, there was a statistically significant decrease of 2.1 percentage points in the upper GI cancer conversion rate for men, from 6.2% to 4.1% (Table C3). Although, Figure C3 suggests this may reflect a longer term decreasing trend and a higher than usual upper GI cancer conversion rate in February and March 2013.

Table C3: Oesophageal and upper GI cancer conversion rates for urgent GP referrals for suspected upper GI cancers, with change, from February to April 2013 and February to April 2014, regional pilot area, by sex

		February to April								
		2013			2014					
Cancer type	Sex	Conv. rate	95% CI	Conv. rate	95% CI	%-point change	P- value			
		(%)		(%)						
Oesophageal	Men	3.8	(2.9, 5.1)	2.6	(2.0, 3.4)	-1.2	0.053			
cancer	Women	1.0	(0.6, 1.6)	0.9	(0.6, 1.3)	-0.1	0.667			
Upper GI	Men	6.2	(5.0, 7.7)	4.1	(3.3, 5.1)	-2.1	0.008			
cancer	Women	2.5	(1.8, 3.3)	2.0	(1.5, 2.6)	-0.5	0.300			



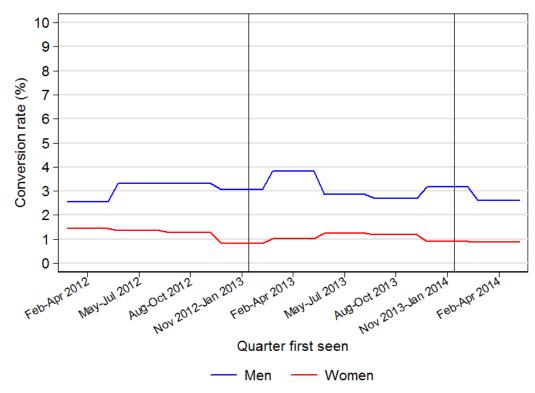
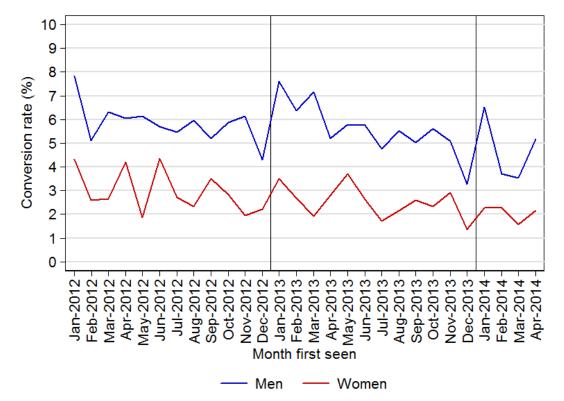


Figure C3c: Monthly upper GI cancer conversion rates for urgent GP referrals for suspected upper GI cancers, from January 2012 to April 2014, regional pilot area, by sex



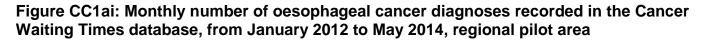
Cancer diagnoses recorded in the Cancer Waiting Times database

Total results

For the regional pilot area, table CC1 shows that there were small decreases in the number of the oesophageal (6%), stomach (10%) and upper GI (4%) cancer diagnoses recorded in the CWT data, for March to May 2014 compared to the same months in 2013, but there were relatively small numbers of cases and these changes were not statistically significant. Similarly, for the control area, the changes were not significant.

Table CC1: Number of oesophageal, stomach and upper GI cancer diagnoses recorded in the Cancer Waiting Times database, with percentage change in number of cancers, from March to May 2013 and March to May 2014

		March to May						
Cancer type	Overall	CWT	cancers	% Change in	P-value			
		2013	2014	number				
Oesophageal cancer	Regional pilot area	123	116	-5.7	0.651			
	Control area	1,317	1,350	2.5	0.523			
Stomach	Regional pilot area	77	69	-10.4	0.508			
cancer	Control area	706	695	-1.6	0.769			
Upper GI cancer	Regional pilot area	317	305	-3.8	0.630			
	Control area	3,819	3,826	0.2	0.936			



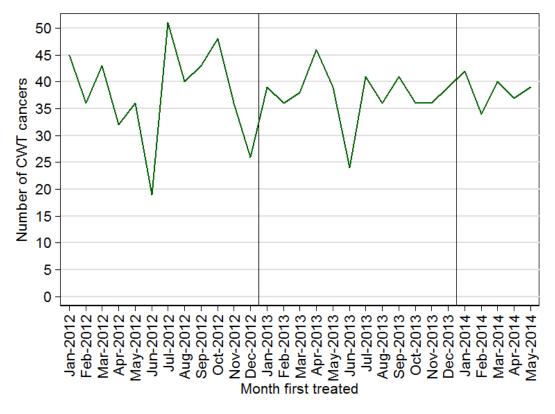
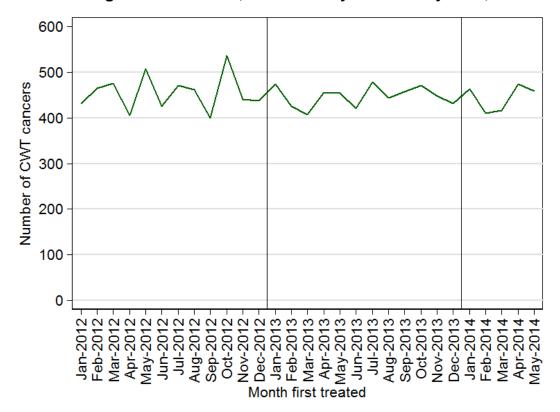


Figure CC1aii: Monthly number of oesophageal cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, control area





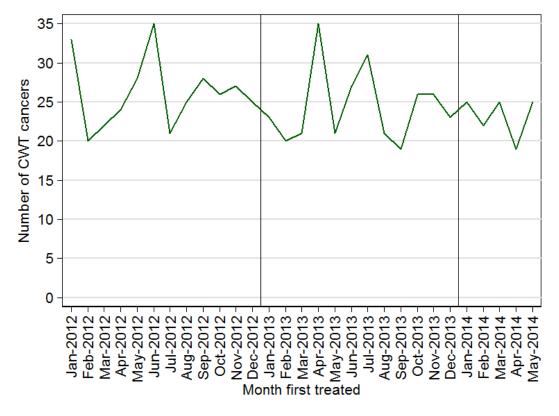
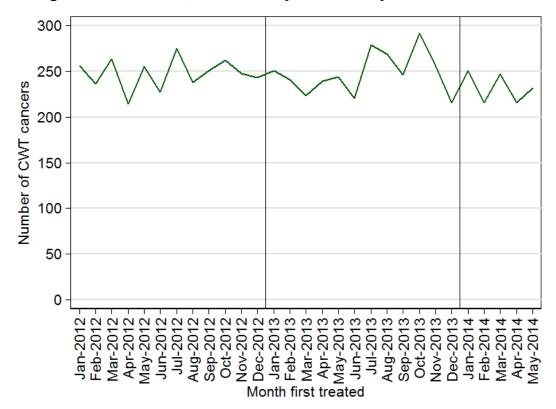
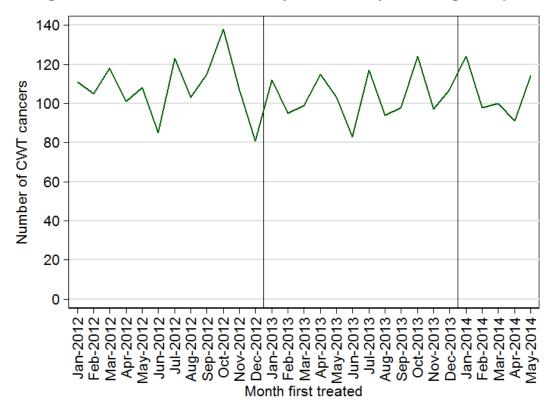


Figure CC1bii: Monthly number of stomach cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, control area





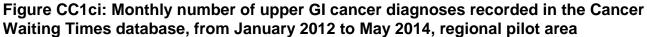
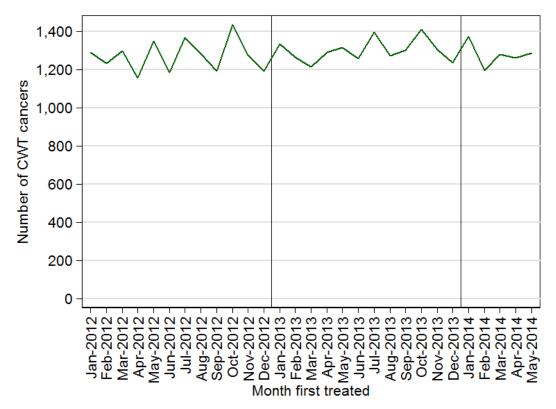


Figure CC1cii: Monthly number of upper GI cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, control area



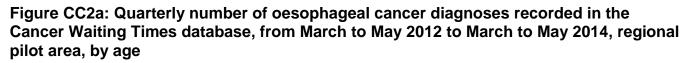
Be Clear on Cancer: Oesophago-gastric cancer awareness regional pilot campaign Interim evaluation results

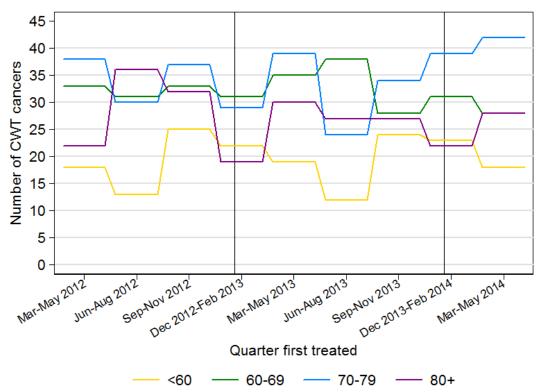
Age results

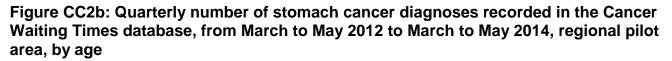
By age, there were only a small number of oesophageal, stomach and upper GI cancer diagnoses in the three-month periods considered, with a large amount of natural variation (Figures CC2a-CC2c). Although there were some large percentage changes in the numbers of cancers, these were based on relatively small numbers, and there were no statistically significant changes, for any age-group, from March to May 2013 to March to May 2014 (Table CC2).

Table CC2: Number of oesophageal, stomach and upper GI cancer diagnoses recorded in the Cancer Waiting Times database, with percentage change in number of cancers, from March to May 2013 and March to May 2014, regional pilot area, by age

		March to May						
Cancer type	Age group	CWT d	cancers	% Change in	P-value			
		2013	2014	number				
	<60	19	18	-5.3	0.869			
Oesophageal	60-69	35	28	-20.0	0.377			
cancer	70-79	39	42	7.7	0.739			
	80+	30	28	-6.7	0.793			
	<60	14	12	-14.3	0.695			
Stomach	60-69	14	14	0.0	1.000			
cancer	70-79	23	20	-13.0	0.647			
	80+	26	23	-11.5	0.668			
	<60	51	49	-3.9	0.841			
Upper GI	60-69	81	69	-14.8	0.327			
cancer	70-79	103	104	1.0	0.945			
	80+	82	83	1.2	0.938			







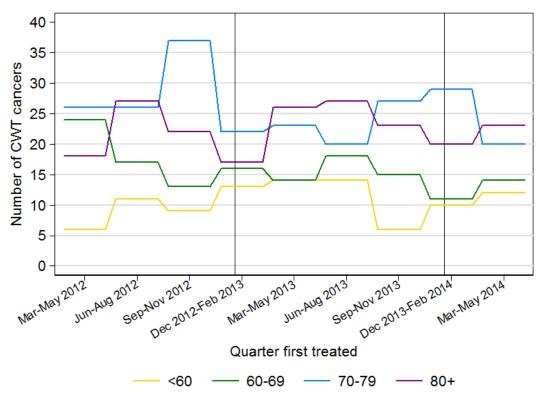
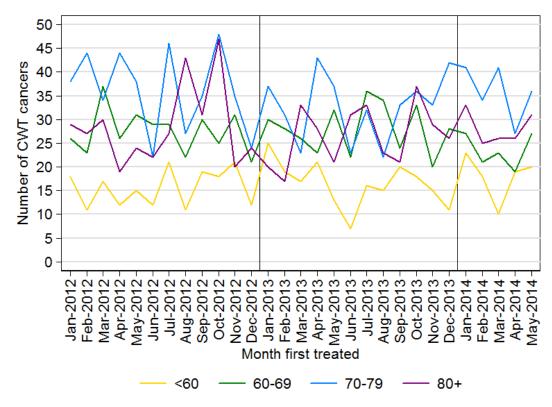


Figure CC2c: Monthly number of upper GI cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area, by age



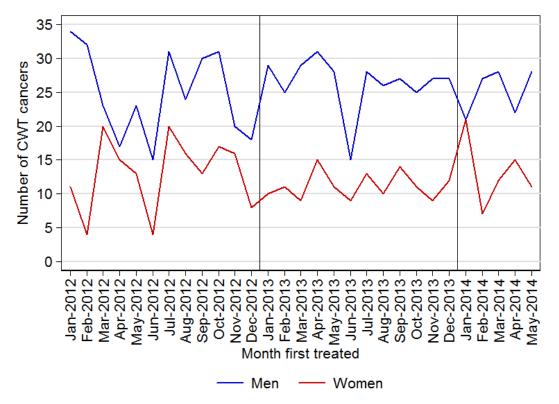
Sex Results

By sex, there were no significant changes in the number of oesophageal, stomach or upper GI cancer diagnoses recorded in the CWT database, for March to May 2014 compared to the same months in 2013.

Table CC3: Number of oesophageal, stomach and upper GI cancer diagnoses recorded in the Cancer Waiting Times database, with percentage change in number of cancers, from March to May 2013 and March to May 2014, regional pilot area, by sex

		March to May						
Cancer type	Age group	CWT	cancers	% Change in	P-value			
		2013	2014	number	F-value			
Oesophageal	Men	88	78	-11.4	0.438			
cancer	Women	35	38	8.6	0.725			
Stomach	Men	46	44	-4.3	0.833			
cancer	Women	31	25	-19.4	0.422			
Upper GI	Men	202	179	-11.4	0.239			
cancer	Women	115	126	9.6	0.479			

Figure CC3a: Monthly number of oesophageal cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area, by sex



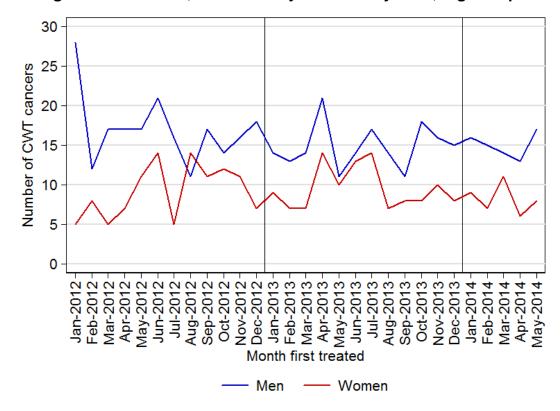
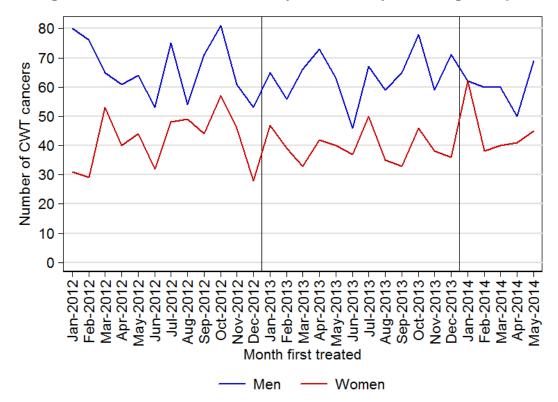


Figure CC3b: Monthly number of stomach cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area, by sex

Figure CC3c: Monthly number of upper GI cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area, by sex



Detection rate

Total results

Compared to the control area, there was more variability in the monthly oesophageal, stomach and upper GI cancer detection rates for the regional pilot area, due to its smaller size (Figures D1a-D1c). For March to May 2014, compared to the same months in 2013, there were increases in the detection rates in the regional pilot area: for oesophageal cancer, a 9.5 percentage point increase; for stomach cancer, a 3.5 percentage point increase; for stomach cancer, a 3.5 however, none of these changes were statistically significant.

Table D1: Detection rate for oesophageal, stomach and upper GI cancer diagnoses, with change, from March to May 2013 and March to May 2014

		March to May							
Cancer type	Overall	2013		2014					
		Det. rate (%)	95% CI	Det. rate (%)	95% CI	%-point change	P- value		
Oesophageal	Regional pilot area	57.7	(48.9, 66.1)	67.2	(58.3, 75.1)	9.5	0.129		
cancer	Control area	52.2	(49.5, 54.9)	55.3	(52.7, 58.0)	3.2	0.101		
Stomach	Regional pilot area	29.9	(20.8, 40.8)	33.3	(23.4, 45.1)	3.5	0.653		
cancer	Control area	35.7	(32.2, 39.3)	35.7	(32.2, 39.3)	-0.0	0.997		
Upper GI cancer	Regional pilot area	41.3	(36.0, 46.8)	44.6	(39.1, 50.2)	3.3	0.411		
	Control area	37.3	(35.7, 38.8)	38.4	(36.9, 39.9)	1.1	0.307		



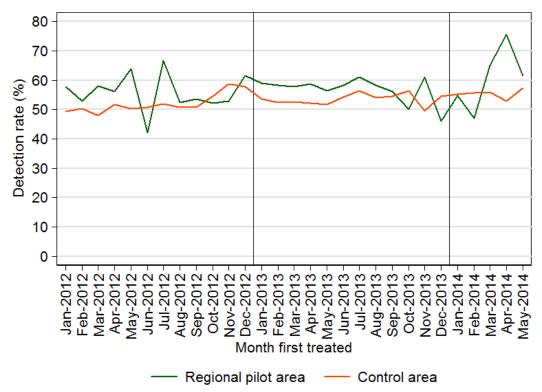


Figure D1b: Monthly detection rate for stomach cancer diagnoses, from January 2012 to May 2014

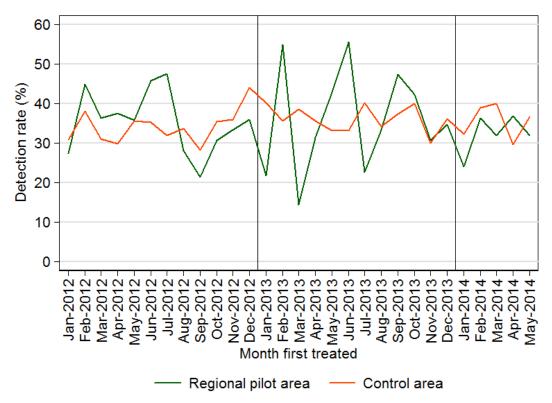
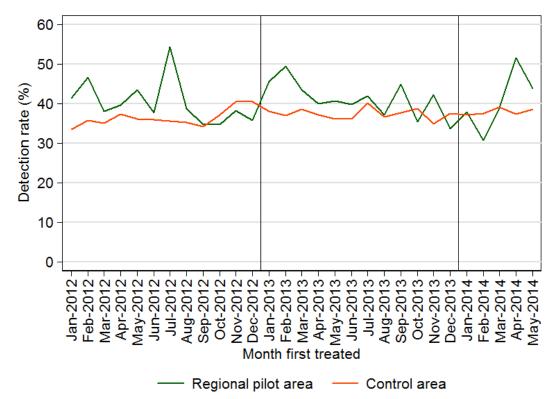


Figure D1c: Monthly detection rate for upper GI cancer diagnoses, from January 2012 to May 2014



Be Clear on Cancer: Oesophago-gastric cancer awareness regional pilot campaign Interim evaluation results

Age results

Figures D2a-D2c show that, by age, there was considerable quarterly and monthly variation in the oesophageal, stomach and upper GI cancer detection rates.

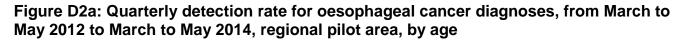
From March to May 2013 to March to May 2014, there were statistically significant increases in the detection rates, for all three cancer types, for those aged 60 to 69 (Table D2). For oesophageal cancer, the detection rate increased by 40 percentage points, from 46% to 86%. For stomach cancer, the detection rate increased by 50 percentage points, from 21% to 71%. For upper GI cancer, the detection rate increased by 29 percentage points, from 35% to 64%.

While these changes do appear large, it is important to consider these in light of the evident existing variation over time. For oesophageal and upper GI cancers, some of this apparent change may also be explained by large, but not significant, percentage changes in the number of CWT-Db recorded cancers seen for this age-group (Table CC2). Although these considerations are important, given the scale of the changes they may not account for all the observed increase.

change, from march to may 2013 and march to may 2014, regional pliot area, by age									
		March to May							
		2013		2014					
Cancer type	Age group	Det.		Det.		%-point	P-		
		rate	95% CI	rate	95% CI	change	value		
		(%)		(%)					
	<60	57.9	(36.3, 76.9)	77.8	(54.8, 91.0)	19.9	0.197		
Oesophageal	60-69	45.7	(30.5, 61.8)	85.7	(68.5, 94.3)	40.0	0.001		
cancer	70-79	61.5	(45.9, 75.1)	54.8	(39.9, 68.8)	-6.8	0.537		
	80+	66.7	(48.8, 80.8)	60.7	(42.4, 76.4)	-6.0	0.637		
	<60	35.7	(16.3, 61.2)	16.7	(4.7, 44.8)	-19.0	0.275		
Stomach cancer	60-69	21.4	(7.6, 47.6)	71.4	(45.4, 88.3)	50.0	0.008		
Stomach cancer	70-79	26.1	(12.5, 46.5)	40.0	(21.9, 61.3)	13.9	0.331		
	80+	34.6	(19.4, 53.8)	13.0	(4.5, 32.1)	-21.6	0.080		
	<60	39.2	(27.0, 52.9)	40.8	(28.2, 54.8)	1.6	0.870		
Upper GI cancer	60-69	34.6	(25.1, 45.4)	63.8	(52.0, 74.1)	29.2	<0.001		
	70-79	47.6	(38.2, 57.1)	43.3	(34.2, 52.9)	-4.3	0.534		
	80+	41.5	(31.4, 52.3)	32.5	(23.4, 43.2)	-8.9	0.235		

Changes were not statistically significant for any other age-groups.

Table D2: Detection rate for oesophageal, stomach and upper GI cancer diagnoses, with
change, from March to May 2013 and March to May 2014, regional pilot area, by age



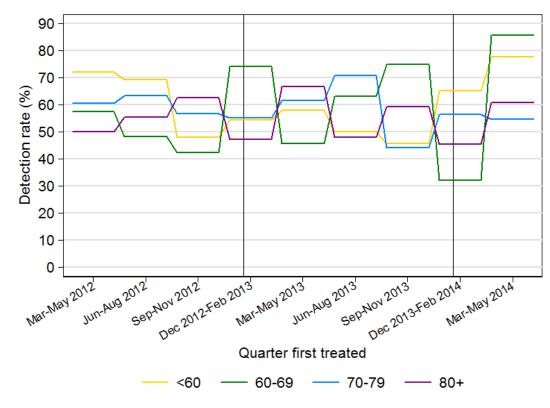
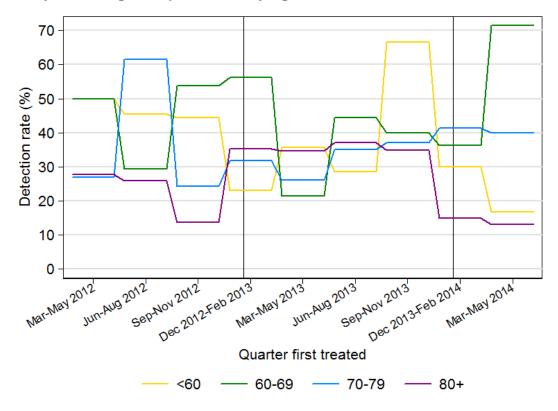
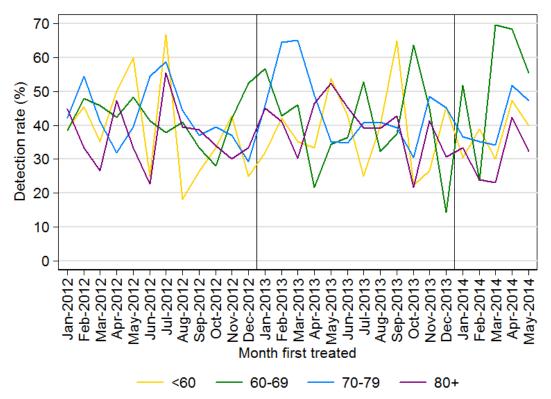


Figure D2b: Quarterly detection rate for stomach cancer diagnoses, from January 2012 to May 2014, regional pilot area, by age







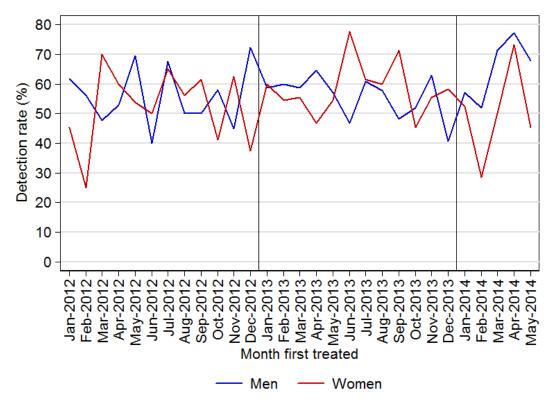
Sex Results

For March to May 2014, compared to the same months in 2013, there were no statistically significant changes in detection rate for oesophageal, stomach or upper GI cancers, for either men or women.

Table D3: Detection rates for oesophageal, stomach and uppe	r GI cancer diagnoses,
with change, from March to May 2013 and March to May 2014, reg	jional pilot area, by sex

		March to May							
		2013		2014					
Cancer type	Sex	Det. rate (%)	95% CI	Det. rate (%)	95% CI	%-point change	P- value		
Oesophageal	Men	60.2	(49.8, 69.8)	71.8	(61.0, 80.6)	11.6	0.117		
cancer	Women	51.4	(35.6, 67.0)	57.9	(42.2, 72.1)	6.5	0.579		
Stomach cancer	Men	32.6	(20.9, 47.0)	36.4	(23.8, 51.1)	3.8	0.708		
Stomach cancer	Women	25.8	(13.7, 43.2)	28.0	(14.3, 47.6)	2.2	0.854		
Upper GI	Men	43.1	(36.4, 50.0)	50.8	(43.6, 58.1)	7.8	0.129		
cancer	Women	38.3	(29.9, 47.4)	35.7	(27.9, 44.4)	-2.5	0.682		

Figure D3a: Monthly detection rates for oesophageal cancer diagnoses, from January 2012 to May 2014, regional pilot area, by sex





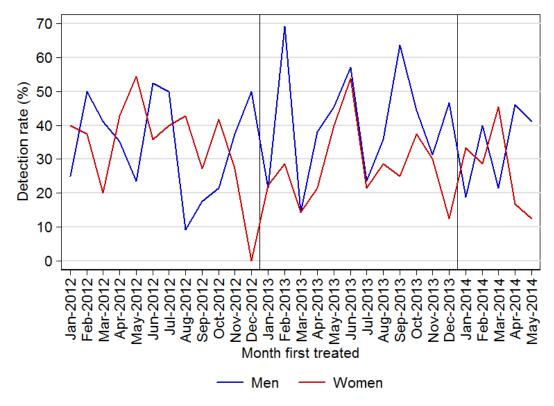
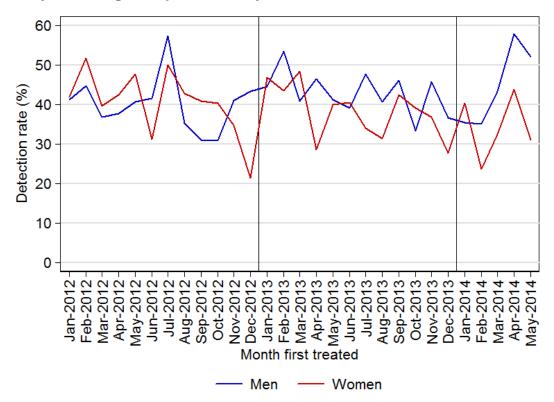


Figure D3c: Monthly detection rates for upper GI cancer diagnoses, from January 2012 to May 2014, regional pilot area, by sex



Appendix 1: List of tables

Table R1a: Number of urgent GP referrals for suspected upper GI cancers, with referral rateand percentage change in number of referrals, from February to April 2013 and February toApril 201418

Table R1b: Number of urgent GP referrals for suspected head and neck cancers, with referralrate and percentage change in number of referrals, from February to April 2013 and Februaryto April 201418

Table R2: Number of urgent GP referrals for suspected upper GI cancers, with referral rate and
percentage change in number of referrals, from February to April 2013 and February to April
2014, regional pilot area, by age21

Table R3: Number of urgent GP referrals for suspected upper GI cancers, with referral rate and
percentage change in number of referrals, from February to April 2013 and February to April
2014, regional pilot area, by sex23

Table TC1: Number of oesophageal, stomach and upper GI cancer diagnoses resulting fromurgent GP referrals for suspected upper GI cancers, with percentage change in number ofcancers, from February to April 2013 and February to April 201424

Table TC2: Number of oesophageal and upper GI cancer diagnoses resulting from urgent GPreferrals for suspected upper GI cancers, with percentage change in number of cancers, fromFebruary to April 2013 and February to April 2014, regional pilot area, by age28

Table TC3: Number of oesophageal and upper GI cancer diagnoses resulting from an urgentGP referral for suspected upper GI cancers, with percentage change in number of cancers,from February to April 2013 and February to April 2014, regional pilot area, by sex30

Table C1: Oesophageal, stomach and upper GI cancer conversion rates for urgent GP referralsfor suspected upper GI cancers, with change, from February to April 2013 and February to April201432

Table C2: Oesophageal and upper GI cancer conversion rates for urgent GP referrals forsuspected upper GI cancers, with change, from February to April 2013 and February to April2014, regional pilot area, by age35

Table C3: Oesophageal and upper GI cancer conversion rates for urgent GP referrals forsuspected upper GI cancers, with change, from February to April 2013 and February to April2014, regional pilot area, by sex37

Table CC1: Number of oesophageal, stomach and upper GI cancer diagnoses recorded in theCancer Waiting Times database, with percentage change in number of cancers, from March toMay 2013 and March to May 201439

Table CC2: Number of oesophageal, stomach and upper GI cancer diagnoses recorded in theCancer Waiting Times database, with percentage change in number of cancers, from March toMay 2013 and March to May 2014, regional pilot area, by age43

Table CC3: Number of oesophageal, stomach and upper GI cancer diagnoses recorded in theCancer Waiting Times database, with percentage change in number of cancers, from March toMay 2013 and March to May 2014, regional pilot area, by sex46

Table D1: Detection rate for oesophageal, stomach and upper GI cancer diagnoses, with
change, from March to May 2013 and March to May 201448

Table D2: Detection rate for oesophageal, stomach and upper GI cancer diagnoses, with change, from March to May 2013 and March to May 2014, regional pilot area, by age51

Table D3: Detection rates for oesophageal, stomach and upper GI cancer diagnoses, with change, from March to May 2013 and March to May 2014, regional pilot area, by sex 54

Appendix 2: List of figures

Figure R1ai: Monthly number of urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014, regional pilot area 19 Figure R1aii: Monthly number of urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014, control area 19 Figure R1bi: Monthly number of urgent GP referrals for suspected head and neck cancers from January 2012 to April 2014, regional pilot area 20 Figure R1bii: Monthly number of urgent GP referrals for suspected head and neck cancers from January 2012 to April 2014, control area 20 Figure R2: Monthly number of urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014, regional pilot area, by age 22 Figure R3: Monthly number of urgent GP referrals for suspected upper GI cancers from January 2010 to April 2014, regional pilot area, by sex 23 Figure TC1ai: Monthly number of oesophageal cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012 to April 2014, regional pilot area 25 Figure TC1aii: Monthly number of oesophageal cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012 to April 2014, control area25 Figure TC1bi: Quarterly number of stomach cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012 to April 2014, regional pilot area 26

Figure TC1bii: Monthly number of stomach cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012 to April 2014, control area26

Figure TC1ci: Monthly number of upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012 to April 2014, regional pilot area 27

Figure TC1cii: Monthly number of upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from January 2012 to April 2014, control area27

Figure TC2a: Quarterly number of oesophageal cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by age 29

Figure TC2c: Quarterly number of upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by age 29

Figure TC3a: Quarterly number of oesophageal cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by sex 31 Figure TC3c: Monthly number of upper GI cancer diagnoses resulting from an urgent GP referral for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by sex 31 Figure C1a: Monthly oesophageal cancer conversion rates for urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014 33 Figure C1b: Monthly stomach cancer conversion rates for urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014 33 Figure C1c: Monthly upper GI cancer conversion rates for urgent GP referrals for suspected upper GI cancers from January 2012 to April 2014 34 Figure C2a: Quarterly oesophageal cancer conversion rates for urgent GP referrals for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by age 36 Figure C2c: Quarterly upper GI cancer conversion rates for urgent GP referrals for suspected upper GI cancers from February to April 2012 to February to April 2014, regional pilot area, by age 36 Figure C3a: Quarterly oesophageal cancer conversion rates for urgent GP referrals for suspected upper GI cancers, from February 2012 to April 2014, regional pilot area, by sex 38 Figure C3c: Monthly upper GI cancer conversion rates for urgent GP referrals for suspected upper GI cancers, from January 2012 to April 2014, regional pilot area, by sex 38 Figure CC1ai: Monthly number of oesophageal cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area 40 Figure CC1aii: Monthly number of oesophageal cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, control area 40 Figure CC1bi: Monthly number of stomach cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area 41 Figure CC1bii: Monthly number of stomach cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, control area 41 Figure CC1ci: Monthly number of upper GI cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area 42 Figure CC1cii: Monthly number of upper GI cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, control area 42

Figure CC2a: Quarterly number of oesophageal cancer diagnoses recorded in the Cancer Waiting Times database, from March to May 2012 to March to May 2014, regional pilot area, by age 44 Figure CC2b: Quarterly number of stomach cancer diagnoses recorded in the Cancer Waiting Times database, from March to May 2012 to March to May 2014, regional pilot area, by age 45

Figure CC2c: Monthly number of upper GI cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area, by age 45

Figure CC3a: Monthly number of oesophageal cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012 to May 2014, regional pilot area, by sex 46

Figure CC3b: Monthly number of stomach cancer diagnoses recorded in the Cancer WaitingTimes database, from January 2012 to May 2014, regional pilot area, by sex47

Figure CC3c: Monthly number of upper GI cancer diagnoses recorded in the Cancer WaitingTimes database, from January 2012 to May 2014, regional pilot area, by sex47

Figure D1a: Monthly detection rate for oesophageal cancer diagnoses, from January 2012 to May 2014 49

Figure D1b: Monthly detection rate for stomach cancer diagnoses, from January 2012 to May 2014 49

Figure D1c: Monthly detection rate for upper GI cancer diagnoses, from January 2012 to May 2014 50

Figure D2a: Quarterly detection rate for oesophageal cancer diagnoses, from March to May 2012 to March to May 2014, regional pilot area, by age 52

Figure D2b: Quarterly detection rate for stomach cancer diagnoses, from January 2012 to May 2014, regional pilot area, by age 52

Figure D2c: Monthly detection rate for upper GI cancer diagnoses, from January 2012 to May 2014, regional pilot area, by age 53

Figure D3a: Monthly detection rates for oesophageal cancer diagnoses, from January 2012 to May 2014, regional pilot area, by sex 54

Figure D3b: Monthly detection rates for stomach cancer diagnoses, from January 2012 to May 2014, regional pilot area, by sex 55

Figure D3c: Monthly detection rates for upper GI cancer diagnoses, from January 2012 to May 2014, regional pilot area, by sex 55