# Leeds Health & Wellbeing Board

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**Report of:** Dr Ian Cameron

**Report to:** Leeds Health and Wellbeing Board

**Date:** 20th January 2016

**Subject:** Improving Cancer Outcomes in Leeds

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| Are there implications for equality and diversity and cohesion and integration?<br>This report finds there are cancer health inequalities in Leeds and makes recommendations to reduce them | ☒ Yes | ☐ No |
| Is the decision eligible for Call-In? | ☐ Yes | ☒ No |
| Does the report contain confidential or exempt information? | ☐ Yes | ☒ No |

**Summary of main issues**

The new independent Task Force's cancer strategy for England 2015-20[1] outlines the recommendations needed to improve cancer outcomes. This report reviews cancer intelligence available to the public health team in order to inform a strategic approach to cancer prevention, early diagnosis and treatment in Leeds.

Hard work and investment in specialised care has resulted in improving survival and reduced amenable deaths, this needs to be sustained.

Delays in diagnosis reduces survival in UK and Leeds (especially in deprived populations) and we are addressing this with Leeds Integrated Cancer Service and the national Accelerated, Coordinated, Evaluated 2 (ACE2) pilot leading to a radical rework of the front end, as well as investing in cancer awareness and early diagnosis in local communities. This is still work in progress. In Lung Cancer there is real progress. This work needs to be endorsed and sustained.

There is concern that a reduced public health grant may impact on prevention and cancer awareness and early diagnosis work disproportionately – this work needs to be sustained and strengthened.

In order to improve outcomes, a new Cancer Strategy Group has been established in Leeds (See Appendix 1 for the Group's Terms of Reference). The Health and Wellbeing Board is asked to advise on the governance of this group.

[1] http://www.cancerresearchuk.org/sites/default/files/achieving_world-class_cancer_outcomes_-_a_strategy_for_england_2015-2020.pdf

**Recommendations**

**The Health and Wellbeing Board is asked to:**

- Note the progress on cancer outcomes
- Ensure cancer outcomes and reducing cancer inequalities remain strategic priorities for the city
- Advise on the governance of the Cancer Strategy Group

## 1.0 Purpose of this report

1.1 Cancer is a strategic priority for the city and this report presents the findings of a review of cancer outcomes for the city. This paper summarises a review of cancer outcomes in Leeds undertaken by the Office of the Director of Public Health during summer 2015, with a focus on the three Leeds CCGs (Leeds North, Leeds South and East and Leeds West), compared to the England average where possible.

## 2.0 Background information

2.1 The new independent Task Force's cancer strategy for England 2015-20[2] outlines the recommendations needed to improve cancer outcomes, and cancer is a priority within Leeds Health and Wellbeing Strategy 2013-15. Cancer remains the single greatest cause of death in our population and is a cause of significant anxiety for the public, and is also a cause and a consequence of health inequalities.

2.2 There are multiple sources of cancer data, each with a different geography and or focus. In order to cover Leeds, comparison populations, and specific areas of interest a number of sources have been used.

1. Local Public health analyses in the appendices to this document. [3]
2. SCN annual cancer report for Yorkshire and Humber August 2015
3. PHE knowledge and intelligence team CCG cancer profiles
4. Leeds Joint Strategic Needs Assessment 2015 potential years of life lost chapter[4]

2.3 It does not cover patient reported outcome measures as these are not routinely collected. It also does not include measures on the process of care or patient experience of care.

2.4 It should be noted that there are concerns about the quality of mortality data, as described where relevant below. In addition, random spikes in incidence in any one year translate into random fluctuations in mortality and outcomes in subsequent years which can potentially misguide as to the population trend especially at smaller area levels eg CCG levels for individual tumour sites. There is no evidence to suggest there is concern over the quality of care received by patients in Leeds, but there are concerns over health inequalities in access and outcomes.

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

[3] *Our analyses are based on rates which predate the formation of CCGs. ONS have therefore based the results on persons living within the geographic boundaries of the CCGs at the time of their diagnosis. There is a delay between date of death and our ability to track what is happening in terms of trends with mortality data typically lagging several years behind, this is most marked for 5 year survival data which is currently available for the period 2004-08.*

[4] http://observatory.leeds.gov.uk/leeds_jsna/

## 3.0 Main issues

### 3.1 Risk factors

3.1.1 Smoking is a key risk factor for cancer. There is a variance in terms of prevalence by practice, and quit rates by CCG and Leeds wide, reflecting in part their patient population and deprivation status. Quit rates are improving steadily in the north but are static in south and east.

3.1.2 The proportion of the population with an audit c alcohol score above 8 is rising in north CCG, SE CCG and falling in West but are very high in west- this is partly due to a very high proportion of returns coming from one practice (student medical practice) where alcohol levels are very high.

3.1.3 The percentage of population with a BMI above 30 is static in all 3 CCGs, this is encouraging evidence that the rise in obesity levels may be slowing down. The level of obesity is higher in SE than north or West CCGs.

### 3.2 Incidence

3.2.1 Cancer incidence is generally rising in the population due to the aging population, historical smoking and other lifestyle behaviours linked to poverty and deprivation including alcohol and obesity as well as low uptake of population screening opportunities. Nationally, cancer incidence is predicted to increase as the population ages and grows. A UK incidence modelling study[5] found that the growing and aging populations will have a substantial impact: numbers of cancers in men and women are projected to increase by 55% and 35%, respectively, between 2007 and 2030.

3.2.2 In terms of comparison between Leeds CCGs and the national average, Leeds North CCG cancer incidence is higher than the England average due to an older population (breast, bowel, urological and lung).

3.2.3 Leeds SE incidence is mixed compared to the England average, reflects higher smoking prevalence (higher lung), younger age profile and/or more deprived population (lower breast and lower bowel), also higher urological.

3.2.4 West CCG incidence is mixed compared to England average, higher lung, urological, and breast; and lower bowel. Leeds West is a mixed population with pockets of deprivation and also high rates of older people in the outer areas.

3.2.5 The National Cancer Intelligence Network cancer and equality groups report 2015[6] provides a useful national picture of cancer incidence by tumour type and ethnicity and sex for England 2006-10. Some of the variation is due to different age structures, however of note there is a well documented higher incidence of prostate cancer in Black men, accounting for over 40% of Black Men's cancer.

### 3.3 Early Diagnosis Outcomes

[5] http://www.nature.com/bjc/journal/v105/n11/full/bjc2011430a.html

[6] www.ncin.org.uk/view?rid=2991

### 3.3.1 Screening uptake

3.3.1.1 Generally screening uptake is lower in more deprived populations and without remedial local action, cancer screening can worsen health inequalities.

3.3.1.2 Screening for breast cancer rates have fallen in recent years and show significant differences at practice level across Leeds. Breast Cancer Screening: Women aged 53 to 64, of those eligible; the rate fell from 73.8% in 2012/13 to 72.7% in 2013/14. Women aged 53 to 70; the rate fell from 74% to 73.1%. Screening rates have also fallen for cervical cancer, cervical screening has fallen in all age groups. In the overall age group 25 to 64 the rate fell from 79.5% in 2012/13 to 78.4 in 2013/14. Note: target for breast and cervical cancers is 80%.

3.3.1.3 Rates for bowel cancer screening have increased however there are also significant differences at practice level reflecting cancer inequalities. Q4 2014/15 figures for Leeds CCGs: North 59.1%; SE 56.2%, West 57.9%. Some areas in YH are achieving 65% uptake. Note: target is 60%, moving to 75% by 2020.

3.3.1.4 There is no population level screening available for lung or prostate cancers. However, in Leeds there is an open access chest XRay service in two sites where the public can walk in to obtain a chest XRay. This data does not differentiate between self referrals and GP referrals. It does show an 18.5% increase in Chest x-rays between 13-14 and 14-15 (there has been a relatively static 2ww referrals and conversion rate which may suggest that the change in pathway has been successful, along with changes in lung staging).

3.3.1.5 PSA new tests data is not available.

### 3.3.2 Routes to Diagnosis

3.3.2.1 It is known that patients presenting for the first time via Emergency Routes have substantially lower one-year relative survival. Different cancer types show substantial differences between the proportions of cases that present by each Route. For England as a whole, in 2006, 24% of cancers where a route was known were diagnosed through emergency routes, in 2013 it was 20%[7]. We have only just got access to this data locally and will be analysing it over the next few months in detail. The rate of emergency diagnosis in Leeds is currently thought to be in the region of 15% of all cancers in which a route is known (or also expressed as 20% of all cancers diagnosed). Understanding local trends in routes to diagnosis is key to directing early diagnosis initiatives. It is anticipated that more cancers will be diagnosed as an emergency in our more deprived populations, contributing to poorer outcomes.

### 3.3.3 Stage at Diagnosis

3.3.3.1 The earlier stage a cancer is diagnosed, and the more planned, generally the better the long term outcome. This is not always true in the case of slow growing or latent disease where the cancer has not directly or indirectly been a cause of death. However it is considered good practice to seek to diagnose cancer earlier (new NICE guidance) and changes in the proportions of cancers diagnosed at an earlier stage is an indicator of how

[7] http://www.ncin.org.uk/publications/routes_to_diagnosis

well the local system is working in terms of early diagnosis. This is excluded from our analysis as the data is not sufficiently timely nor sufficiently robust to track over time. This will be available to us over the next few years and we will enable us to monitor trends in stage.

### 3.4 Mortality

3.4.1 Cancer mortality coding is one way of looking at outcomes however it has flaws relating to increasingly accurate diagnosis, recording of diagnosis, and cause of death reporting. Local analysis between Macmillan and LTHT has found that many patients with multiple relapse/recurrence events have no mention of cancer on their death certificate either as a cause of death (1a, 1b, 1c) or as an associated condition. One can conclude that cancer mortality rates must be viewed with this in mind and with caution. In addition, random fluctuations in incidence at a CCG level can be seen to translate into non-significant impacts on mortality rates for cancers and also onto potential years of life lost. This could be read as worsening mortality rates when it is a reflection of variation in underlying incidence. Aggregated data helps this to some extent.

#### 3.4.2 Mortality in all ages

3.4.2.1 Leeds local authority all ages all cancers mortality directly age standardised rates (pooled 2011-13) do show that mortality rates are significantly worse than the Yorkshire and Humber (YH) and the England average. The worse position between YH and England remains significantly different for men and women combined, but is not statistically significant for men in Leeds alone, there is a statistically significant difference for women whose mortality rates are higher in Leeds than the YH average. The all ages all cancers trend for 1995-2013 for Leeds is improving but appears to be falling less fast than the YH rate and the England rate, this is of concern. There is no reason to believe there is concern over the quality of local services, more likely that there are inequalities in access and outcomes.

3.4.2.2 In terms of site specific mortality by CCG, generally the data is more stable than the under 75s but the same caveats around mortality data identified above remain. All neoplasms mortality in each CCG is slowly falling, this has just reached statistical significance in Leeds SE. This is also seen in males specifically and is significant in LSE and West but not in North. These improvements are less marked in women where they are static and fluctuating.

3.4.2.3 Lung mortality in North has fallen (just) significantly, it is static in West and SE CCGs. In males the rates are falling in all 3 CCGs but not significantly. In women rates are static and fluctuating.

3.4.2.4 Bowel mortality is static in all 3 CCGs. In LSE the rate is falling in men (not significant) and fluctuating in the other two CCGs. In North and LSE the rates in women are rising but this is not significant.

3.4.2.5 Prostate mortality is falling slightly in Leeds North (not significant), static in LSE, and significantly fallen in Leeds West.

3.4.2.6 Breast mortality is fluctuating for all 3 CCGs (non significant).

### 3.4.3 Mortality in under 75s

3.4.3.1 Mortality in under 75s is a subset of overall mortality. As many if not most cancers are age related, in a younger population, the numbers are smaller and hence the confidence limits are higher. Changes are less likely to be significant and more prone to random fluctuation, this is manifest in the trends where significant fluctuations are occurring.

3.4.3.2 When reviewed at CCG level and in the under 75s (SCN report 7.1.1), the Leeds mortality rate is higher than the YH or England average due to higher rates in SE CCG and also West CCG. North CCG rates are better than the England average. All three CCGs have shown improvements in the last 10 years compared to 2001-03, however rates have not fallen as much in SE and West as they have in North.

3.4.3.3 The rate of under 75s deaths from all cancers is greatest in LSE and the trend is decreasing over time (non significant), but remains above the England average. The rate in Leeds West is fluctuating around the England average but this is not significant. The rate in Leeds north is below the England average and is also fluctuating (not significant). Rates are generally higher in men than women. The number and proportion of all under 75s cancer deaths from different tumour types varies with each CCG. Lung and digestive system cancers (excl oesophageal) are the two most common causes of cancer deaths in the under 75s in all Leeds CCGs, accounting for over 300 cancer deaths in under 75s in North CCG in 2011-13; almost 600 in LSE; and approx. 550 in Leeds West (note divide by 3 for average annual numbers). Breast, then oesophageal, then prostate are the next most common cause of death in this age group.

3.4.3.4 There are some interesting though it must be noted, not significant, trends to note, and with the caveats of the limitations of the mortality data noted above. Female bowel cancer death rates in the under 75s are increasing in LSE. Prostate cancer death rates in the under 75s are increasing in all CCGs. Breast cancer rates are static especially Leeds West.

### 3.4.4 Avoidable Potential Years of Life Lost from Cancer (age under 75)

3.4.4.1 This is a new measure which takes into account the age of death as well as the cause of death. As shown in the JSNA for Leeds 2015, deaths from cancer are the single largest cause of avoidable PYLL in the city, accounting for 36.3% of all avoidable PYLL. PYLL from cancer is twice that in deprived Leeds quintile than Leeds non deprived, with higher rates of cancer PYLL in Leeds SE than Leeds West than Leeds North. Small changes in incidence do reflect on these PYLL rates, for example non significant spikes in incidence of bowel, breast and lung in 2011 in Leeds West CCG have impacted on PYLL rates in 09-11, 10-12, and 11-13. When reviewed over a five year period, it is clear that avoidable PYLL for cancer at CCG level are not stable, essentially the trend for Leeds and its CCGs appears to be static.

3.4.4.2 We have undertaken additional local analysis on ‘avoidable’ PYLL from cancer (a combination of’ preventable’ cancers using the ONS definitions and ‘amenable’ to healthcare cancers) (NB these are not mutually exclusive eg some cancers may be both preventable and amenable). The rates of avoidable cancer have increased in recent years however this is not significant. The rate of amenable cancer has reduced (significantly) in recent years suggesting that treatment outcomes in this under 75 population are improving. There is no significant difference in the rate of PYLL preventable cancers in Leeds, however rates are falling significantly in SE CCG from a

high baseline and are rising significantly in West and North CCGs. It should be noted that this is a crude analysis but highlights that prevention of cancer must remain a priority for the city.

### 3.4.5 Survival

3.4.5.1 It is becoming more useful to look at cancer outcomes in terms of survival. This analysis is still in development, but one and five year survival rates are starting to be routinely published. The five year survival rates are published at a West Yorkshire level due to the often small numbers. The aggregated survival rates will hide inequalities in cancer outcomes within the population with more affluent populations consistently having better outcomes. Survival data also depends on accurate mortality data coding therefore should be treated cautiously.

3.4.5.2 One year survival

The percentage survival at 1 year for all cancers combined has increased for all Leeds CCGs. Leeds CCGs survival at 1 year have increased from below 65% (1997) to 68-72% (2012); with Leeds North having exceeded the national rate significantly, and Leeds SE and Leeds West still exceeding the national rate but at a lower level than Leeds North. In 2011, the rate of survival in Leeds SE fell below the statistical outlier level for the first time, and if current rates persist this is likely to be followed by Leeds West and then Leeds North. The rate of improvement in Leeds is not keeping up with the national trend, this is likely to be due to a combination of factors such as the rest of England catching up with our earlier higher outcomes, issues relating to coding, and the persistence of local health inequalities. Survivorship in younger ages (55-64y) is greater than those aged over 75y. The worsening position with regards the England outlier position is more marked in the 55-64y age range. There is no reason to believe there is concern over the quality of local services, more likely that there are inequalities in access and outcomes.

The percentage survival at 1 year for breast (women), colorectal and lung is now available at CCG level. This shows that over the period 1997-2012, outcomes in all Leeds CCGs for patients age 15-99 have increased from 66.4% (LN), 64.2% (LSE), 64.4% (LW) in 1997 to 70.9% (LN), 69.8% (LSE), 69.6% (LW), a 4-5% increase during this period. Initially this exceeded the England average though this has levelled off in recent years, reasons for this are unclear but are likely to relate to a combination of factors such as the rest of England catching up with our higher outcomes, issues relating to coding, the persistence of local health inequalities. One year survival for these cancers is better for younger populations.

The 1 year survival for Leeds patients for Colorectal cancer has been improving steadily for LNCCG; are static for LSE; and slowly improving for LWCCG. Survival at 1 year for colorectal is over 70%, this is less favourable than the England average for Bowel 76% E&W, 2010/11.

The 1 year survival for Leeds patients for lung cancer remains very low but has been improving steadily for LNCCG; and improving significantly for LSE and West. Of note survival from lung cancer at 1 year is better than the England average England average for Lung 32% E&W, 2010/11.

The 1 year survival for Leeds patients for women with breast cancer has been static for LNCCG; are improving for LSE; and static for LWCCG. Survival from breast cancer at 1 year is over 95%, England average Breast 96% E&W, 2010/11.

3.4.5.3 Five year survival

The percentage survival at 5 years is available at a West Yorkshire level only. We do not have access to anything at Leeds or CCG level. This shows the West Yorkshire figures, for all cancers the 5 year age standardised net survival for patients diagnosed in 2008 was almost 50%, this is better than the England average. For breast/bowel/ lung it was 52.1%. This is slightly below the England average.

## 4 Health and Wellbeing Board Governance

### 4.1 Consultation and Engagement

This report has been considered by the Cancer Strategy Group and the Leeds Cancer Board.

### 4.2 Equality and Diversity / Cohesion and Integration

This report seeks to reduce cancer inequalities in Leeds.

### 4.3 Resources and value for money

Improving cancer outcomes requires cross system collaboration from a number of key partners. £34.34M is spent on cancer treatment in Leeds, less than £100K is spent on awareness raising to reduce health inequalities.

### 4.4 Legal Implications, Access to Information and Call In

There are no access to information and call-in implications arising from this report.

### 4.5 Risk Management

There is a risk of failure to improve outcomes, this paper is mitigation to that risk.

## 5 Conclusions

Partners are working well together, there is a need to focus on improving outcomes and reducing health inequalities including early diagnosis.

## 6 Recommendations

The Health and Wellbeing Board is asked to:

- Note the progress on cancer outcomes
- Ensure cancer outcomes and reducing cancer inequalities remain strategic priorities for the city
- Advise on the governance of the Cancer Strategy Group