

**Rotherham Director of Public Health
Annual Report 2013/14**

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Rotherham Director of Public Health Annual Report

Introduction

Rotherham Council has new Public Health responsibilities to improve health and reduce health inequalities, responsibilities shared with the NHS and Rotherham Clinical Commissioning Group. This report sets out to develop a common understanding of the reasons for these inequalities and the interventions needed to address them.

The analysis of preventable mortality and illness across Rotherham is therefore aimed at policy makers in the Council, Cabinet, Health and Wellbeing Board and Clinical Commissioning Group.

We need to develop the public sector into a wider public health workforce for the promotion of healthy behaviours. Making Every Contact Count (MECC) is an evidence based framework that looks at disease prevention and lifestyle behaviour change. A significant difference can be made through directing people to local services, brief interventions for behaviour change and through intensive actions throughout the public sector.

Rotherham's *Health and Wellbeing Strategy* prioritises the lifestyle factors that contribute to health inequalities. Inevitably altering long term trends in behaviour requires the long view. This report focuses on some of the actions we can take now to address the main causes of death in Rotherham.

In compiling this report I have used two national reports from Public Health England: the *Rotherham Health Profile 2013* and the *Public Health Outcomes Framework*. I have combined this national work with information from the Joint Strategic Needs Assessment and from local disease and death surveillance.

The focus of the report is the actions we need to take to reduce health inequalities, particularly the causes of premature death and the growing problem of disability brought on by long term diseases or conditions. In Rotherham we need to focus particularly upon

- Cardiovascular disease
- Cancer
- Liver disease
- Respiratory disease
- Mental health

The delivery of a significant reduction in mortality and disability requires all partners to integrate risk reduction into practise.

In Rotherham, like the rest of England, we have an obesity crisis with one in three children in Year 6 being overweight or obese. This early onset of obesity means that people are carrying excess weight earlier in their lives and, consequently, are suffering the complications of obesity at an increasingly younger age.

Obesity is a significant contributor to the high levels of disability seen in Rotherham. At the moment much of the effort in the NHS is directed towards managing the consequences of obesity such as high blood pressure, diabetes and arthritis. For the damage caused by alcohol and smoking, we similarly focus too much on the consequences and not the preventative strategies.

This report highlights the growing evidence about the effects of air pollution on health particularly particulate air pollution and increased risk of heart disease and supports efforts to reduce exposure in the air quality corridor along the M1.

As a new responsibility of local government in Rotherham, this report highlights these key Public Health challenges for the Borough.

John Radford, Director of Public Health

Summary of recommendations

- The Health and Wellbeing Board needs to ensure a common framework for preventative management of multiple conditions including mental ill health and musculoskeletal disease and to ensure we integrate risk factor management and rehabilitation in all disease management and care delivery.
- Rotherham Children's Board and the Council work with schools and the voluntary and community sector to reduce the impact of poverty on the borough's children.
- Rotherham's secondary schools should be encouraged to adopt stay-on-site policies at lunchtimes.
- The Health and Wellbeing Board needs to consider the relationship between its long term goals in the Health and Wellbeing strategy and the need to take action now to reduce the three main causes of inequality: cancer, especially lung cancer, cardiovascular and respiratory deaths.
- We must offer everyone aged 40-74 a health check every five years screening 20% of the eligible population annually with a 90% uptake.
- Physical activity should be commissioned as a direct intervention to prevent morbidity in long term conditions.
- Stopping smoking should be the key priority for the Borough in tackling excess cancer deaths
- The CCG should actively promote awareness of early signs and symptoms of cancer and how and where to seek help as this could quickly save lives
- Faster referral pathways and lowered thresholds for referral by GPs, particularly for lung cancer, are required to ensure a higher proportion of lung cancers are detected through the 2 week wait system.
- Rotherham CCG should continue to prioritise reducing the use of prescribed non-steroidal anti-inflammatory drugs.
- Reducing the volume of alcohol consumed in the Borough needs to be the agreed theme for the introduction of making every contact count (MECC), whilst maintaining quick and easy access to services that can respond to those identified as risky drinkers.
- Services and GPs should be active in making the hepatitis vaccine available to risk groups and better clinical screening for early detection and treatment.
- Hepatitis prevention needs to be a priority for environmental health and for the sexual health and the drugs service.
- Rotherham MBC should develop a Rotherham Mental Health Strategy outlining local action to promote wellbeing, build resilience and prevent and intervene early in mental health problems.
- Mental health promotion messages should be an agreed theme within Making Every Contact Count (MECC).
- Rotherham Council should note the significant effect of air quality on mortality and that improvement in air quality, particularly reducing levels of PM 2.5 to PM 10 should be a priority for the Borough.
- Rotherham Clinical Commissioning Group and NHS England should consider flu vaccination a priority for Rotherham. Achieving 90% uptake of flu vaccination in the

extension of immunisation to all children under 18 this September should be a priority for the Health and Wellbeing Board.

- Rotherham Clinical Commissioning Group should implement the local actions outlined in the Chief Medical Officers 2013 Annual Report on Antimicrobial Resistance.

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1. Our Community/Improving the Wider Determinants of Health

The population of Rotherham continues to grow and is projected to reach 269,000 by 2021. The age profile will be increasingly dominated by the elderly. The number of people over 65 is expected to grow by 13% over the next eight years; however, nearly all of that growth will be in people aged over 70. The rate of growth in the population aged over 85 is projected to be twice as fast as in the over 65s. In the decade to 2030, the number of people aged 50 plus is anticipated to increase by a further 50%.

A striking feature of the changing demography of Rotherham is the increasing number of people living alone. Potential consequences of this include lack of capacity to cope at home with illness, loneliness and mental ill-health. Mental ill-health is the biggest cause of illness and incapacity in the Borough.

The number of people in Rotherham depending on out of work benefits (job seekers' allowance, employment support allowance and other income related benefits) is well above the national rate. Although the rate of young adults not in education, employment or training is improving, it is still above average. These issues are strongly linked to levels of disability particularly mental ill health.

Levels of recorded crime have been falling for some years and have levelled out more recently. While violent crime is rare, there has been a recent growth in acquisitive crimes such burglary, vehicle crime and shoplifting. The wider economic situation gives rise to a concern that this trend will continue.

People in Rotherham are less likely to be active, more likely to smoke and be overweight or obese than the England average. There is a socio-economic gradient in that people living in more deprived areas of the borough are more likely to have unhealthy behaviours; deprived areas are also more likely to have people with multiple unhealthy factors leading to increased long term illness.

2. Public Health Outcomes Framework

The *Public Health Outcomes Framework*¹ (see Appendix 1) sets out a structure for public health in a way that can be measured locally. The outcomes and the indicators used are

¹ Department of Health (2013) *Improving outcomes and supporting transparency: A public health outcomes framework for England 2013-2016*

important in helping us understand how well public health is being improved and protected in Rotherham². The framework concentrates on two high-level outcomes to be achieved across the public health system, and groups further indicators into four 'domains' that cover the full spectrum of public health. The outcomes reflect a focus not only on how long people live, but on how healthy they are at all stages of life.

2.1 Overarching Indicators

The *Public Health Outcomes Framework* overarching outcomes set the vision for the whole health system of what Government wants to achieve for the public's health.

The two high level outcomes are:

- increased healthy life expectancy at birth, ie taking account of the quality of health as well as the length of life
- reduced differences in life expectancy and healthy life expectancy between communities (through greater improvements in more disadvantaged communities)

This framework is not therefore just about extending life: it also covers the factors that contribute to healthy life expectancy, including what happens at the start of life and how well we live across the course of our lives. The main two outcomes together underpin the overall vision to improve and protect health while improving the health of the poorest fastest.

The high level outcomes are supported by two measures that are important for Rotherham; they tell us how well we are doing in improving health.

Healthy Life Expectancy at Birth is the average number of years a person would expect to live in good health based on existing local mortality rates and prevalence of self-reported good health. In Rotherham healthy life expectancy is 58.2 years for men and 59.9 for women. This is at the lower end of healthy life expectancy in England, with the best area in the country having a healthy life expectancy of 70.3 years for men and 72.1 years for women.

Life Expectancy at Birth is the average number of years a person would expect to live based on existing local mortality rates. In Rotherham life expectancy at birth in men is 77.8

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263658/2901502_PHOF_Improving_Outcomes_PT1A_v1_1.pdf

²Public Health England (2013) *Rotherham Profile* <http://www.nepho.org.uk/pdfs/public-health-outcomes-framework/E08000018.pdf>

years and 81.7 years for women. The lowest and highest rates in England are 73.8 to 81.9 for men and 79.3 to 86.1 years for women.

[infographic to be developed to show the difference in a visual way]

What do these Indicators tell us? Life expectancy in Rotherham is worse than in most of England but also, and equally importantly, that people in Rotherham develop poorer health on average 5 or 6 years before the majority of people in England.

- **In Rotherham a man can expect to live about 75% of his life in good health compared to the England average of 80%.**
- **A woman in Rotherham can expect to live 73% of her life in good health compared to the England average of 77%.**

Why is this important?

This disability burden has significant implications for public services locally, on the need for health and social care and for employment opportunities. This is because, on average, people in Rotherham will develop long term conditions around 8 years before the new state pension age of 67. This means more working age people living with long term conditions such as heart disease, diabetes, dementia, chronic mental health disability and surviving after cancer treatment.

At the moment there are more than 13,000 people in Rotherham with diabetes, and 5,400 on GP stroke registers; by 2025 there will be over 4,500 people in Rotherham living with dementia. In addition we know that much of the disability reported relates to musculoskeletal disease and mental ill health. The outcome indicators highlight that 31% of Rotherham people report a low level of happiness and 42% high anxiety.

Most of the risk factors for the development of long term health conditions – smoking, obesity and lack of exercise (inactivity) – are well known. The World Health Organisation has long identified physical inactivity as one of the leading causes of death; in 2002 it estimated inactivity is responsible for 30% of ischaemic heart disease, 21-25% of breast and colon cancer and 27% of diabetes³. 52.4% of Rotherham adults report themselves as active, nearly 4% less than the English average of 56%. 33.6% report themselves as inactive, significantly above the England figure.

³ World Health Organisation (2010) *Global recommendations on physical activity for health*
http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf?ua=1

Musculoskeletal Conditions

Musculoskeletal conditions pose an enormous burden on individuals and have significant economic consequences for us. Up to 1 in 5 adults complain of musculoskeletal pain and discomfort at any one time, particularly back and lower limb pain and discomfort. They are a major cause of high health service utilisation. Musculoskeletal disorders are also among the most common problems affecting the elderly. The resulting loss of mobility and physical independence can be particularly devastating in this population.

The prevalence of physical disability is higher in women than men. It rises with age; around 60% of women aged over 75 living in the community report some physical limitations. In individuals of working age, back pain and generalized widespread pain are a common cause of sick leave and long-term work absence, a big problem for the individuals affected and with huge economic consequences.

Around 15-20% of consultations in primary care are for these and other musculoskeletal symptoms. Many of these people are referred to physiotherapists, occupational therapists or to medical specialists such as rheumatologists, orthopaedic surgeons or rehabilitation. Total joint replacements (mainly of the hip or knee) are one of the most common elective operations for older people in Rotherham.

This mixture of an increasingly older population with multiple long term illnesses, physical limitations on mobility and mental ill health needs to be at the forefront of our plans for improving health across the Borough.

2.2 Transforming Health and Social Care Services

GPs are now central to the commissioning of health services and meeting the community needs of their patients. Rotherham Hospital has struggled in the last few years to maintain its services within the funding available and faces further challenges with 24 hour working and increasing specialisation. Specialist services, such as neurology, are increasingly being delivered to Rotherham people in Sheffield. Adult social care also faces unprecedented pressure on its budgets to maintain services at the current level.

The changes in demographic need and the increase in multiple conditions, including mental health conditions, mean that we need to consider what hospital services in Rotherham should look like to best support people to be:

- economically active
- independent

- treated as a whole rather than as a series of clinical conditions

We need to consider how the hospital supports GPs and social care to deal with the health consequences of multiple health problems as well as tackling the underlying causes of ill health, and how can:

- be forward thinking and not simply responsive
- use social and physical support to maintain good health
- use high quality diagnostic support and clinical intervention to keep people at home

Recommendation

The Health and Wellbeing Board needs to ensure a common framework for preventative management of multiple conditions including mental ill health and musculoskeletal disease and to ensure we integrate risk factor management and rehabilitation in all disease management and care delivery.

3. Children and Young People's Health

3.1 Young people's health

Child poverty is the biggest barrier to improving outcomes for children and young people. In Rotherham about 11,480 children (23.1%) live in low income families (children living in families in receipt of out of work benefits or tax credits where their reported income is <60% median income), this poses an immense challenge to give those children the best start in life.

The improvement in educational attainment in Rotherham as measured by GCSE results, from 54% in 2008 to 60% (1% above the England average), is stunning. It is a great achievement for Rotherham, its schools and the Council, but most of all for Rotherham children.

However, pupil absences from school are high at 5.11% for those aged under 16 (expressed as the percentage of half days missed by pupils due to authorised and unauthorised absences). To continue the improvement in educational attainment a reduction in pupil absence will need to be achieved.

The proportion of 16-18 year olds not in education, employment or training (NEET) is 7.4 %, higher than the England average of 5.8%. Disengagement at this time can have a significant and lasting impact on the young person's health and wellbeing.

Rates of sexually transmitted infections are high, measured using chlamydia diagnoses as a marker condition, and indicate high levels of unprotected sexual activity in 15-24 year olds. Under 18 conceptions are also high, although the most recent figures for Rotherham show significant improvement.

3.2 Maternal and infant health

Infant mortality, the rate of deaths in infants aged under 1 year per 1,000 live births, is 5.1 in Rotherham, not significantly different from the England rate at 4.3⁴. However, 3.5% of babies at term are of low birth weight, significantly higher than the England average. Both infant mortality and low birth weight are key markers of child and maternal health in a local population.

Significant inroads have been made in reducing smoking in pregnancy, the main avoidable cause of low birth weight and infant mortality. Rates of smoking at delivery in Rotherham have dropped from 26.1% (in 2009/10) to 19.2% in 2012/13. While this rate is still significantly higher than the national average it demonstrates the impact intensive local interventions are making.

Breastfeeding initiation and maintenance are continuing challenges for us to give children the best start in life. Both are significantly worse than the England average.

3.3 Obesity in children

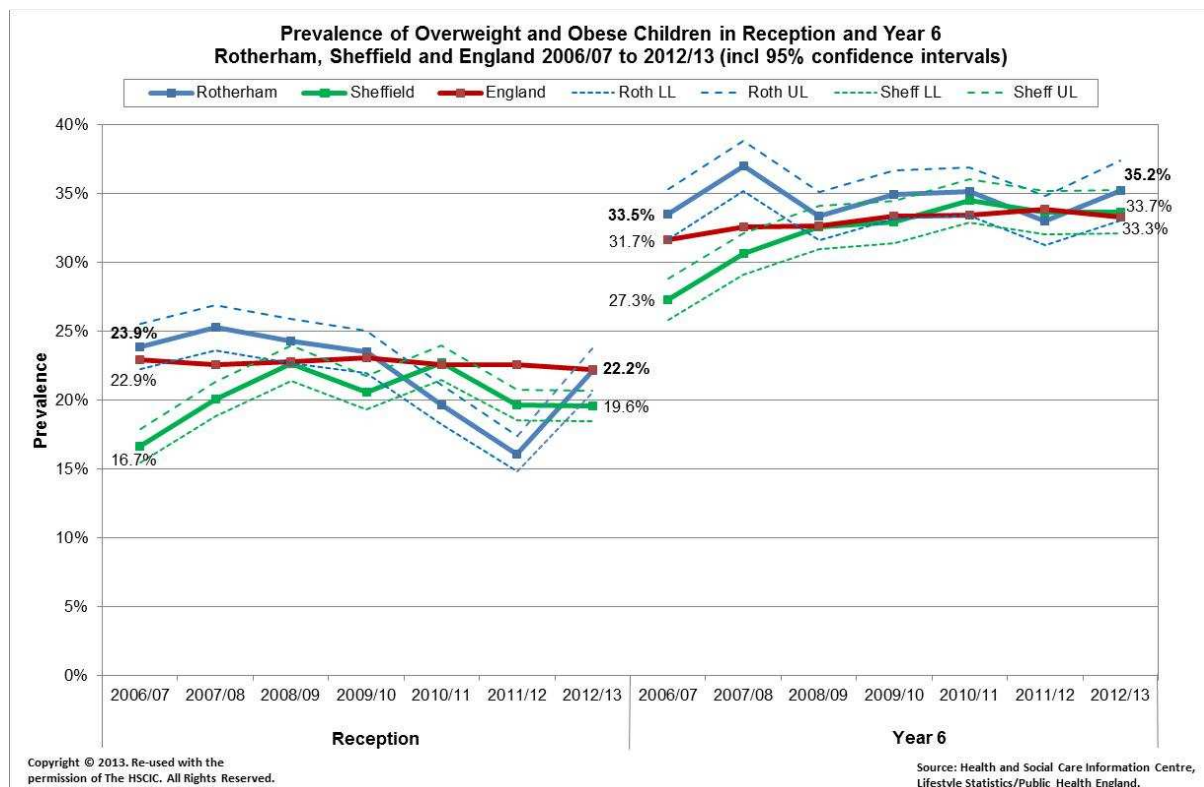
The data for obesity in children is more detailed than that available for adults because of the comprehensive National Child Measurement Programme, which weighs and measures all children in Reception and Year 6. We know from this information that childhood is an important time in the development of obesity, as levels more than double between Reception (aged 4-5 years) and Year 6 (aged 10-11 years).

This is a startling finding; why does it happen? It must be as a consequence of the lifestyle and diet choices of the children, their parents, their school and local environment. School stay-on-site policies have been shown to reduce the consumption of unhealthy food during the school day⁵.

⁴Adapted from data from the Office for National Statistics (ONS) licensed under the Open Government Licence v2.0.

⁵ Crawford et al (2012) A Feasibility Study to Explore the Nutritional Quality of 'Out of School' Foods Popular with School Pupils http://www.gcph.co.uk/assets/0000/3539/Out_of_school_foods_report_-_final.pdf

Rotherham's children are also fatter than the England average at Year 6 (20.5% obese compared to 19.2%), despite having a significantly higher proportion of healthy weight children in Reception than the England average (81.3% compared to 76.5%). A further marker of dietary intake is oral health; local children have poor dental health with an average of 1.4 bad teeth (England average 0.94).



Recommendations

- Rotherham Children's Board and the Council work with schools and the voluntary and community sector to reduce the impact of poverty on the borough's children.
- Rotherham's secondary schools should be encouraged to adopt stay-on-site policies at lunchtimes.

4. Life Expectancy and Cause of Death

Mortality is measured using the age-standardised rate of mortality. Age-standardisation adjusts death rates to take into account how many old or young people are in the population being looked at. When rates are age-standardised, differences in the rates over time or between geographical areas do not simply reflect variations in the age structure of the populations. This is important as many diseases predominantly affects the elderly so higher rate in one area is likely to reflect the fact that it has a greater proportion of older people.

In Rotherham the age-standardised rate of mortality from causes considered preventable is 159.8 per 100,000 population, substantially above the England average. This indicator is broken down into its component indicators:

- under 75 years mortality from
 - cardiovascular disease
 - cancer
 - respiratory disease
 - liver disease
- all ages mortality rate from
 - infectious disease
 - suicide

Each component is analysed here and this analysis needs to direct our local actions to reducing premature death rates.

Mortality from most of these conditions can be effectively reduced by taking regular exercise, not smoking, eating a balanced diet and limiting alcohol consumption. It must be recognised that individual behaviour change is difficult and needs support. A multifactorial approach that addresses all risk factors yields most benefit. This is because tackling multiple risk factors in individuals has cumulative effect in reducing the chance of death.

Analysing the life expectancy gap between Rotherham and England helps understand the key causes of mortality contributing to inequalities in life expectancy and should inform the health and wellbeing strategy.

- 30% of the gap is caused by circulatory disease, heart attacks and stroke
- 26% by cancer with over half of this explained by lung cancer deaths
- 33% of the gap is caused by excess respiratory deaths

Although the contribution of liver and gastro-intestinal disease to inequalities is relatively small at the moment, it is the increasing trend in the numbers of these deaths that is of concern. Similarly in an analysis of the contribution of air pollution to mortality it is the underlying contribution of air pollution to all deaths that is important. In both these cases these deaths are potentially avoidable.

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Table 1: Breakdown of the life expectancy gap between Rotherham as a whole and England as a whole, by cause of death, 2009-2011

		MALE			FEMALE		
Broad cause of death	Cause of death	Number of deaths in Rotherham	Number of excess deaths in Rotherham	Contribution to the gap (%)	Number of deaths in Rotherham	Number of excess deaths in Rotherham	Contribution to the gap (%)
Circulatory diseases	Coronary heart disease	685	137	28.8	536	144	30.3
	Stroke	206	6	3.3	310	..	..
	Other circulatory diseases	225	..	..	260	..	..
Cancer	Lung cancer	310	69	15.4	235	47	13.0
	Other Cancers	886	96	18.2	780	38	13.5
Respiratory diseases	Pneumonia	241	88	18.0	303	87	14.1
	Chronic obstructive airways disease	191	19	1.6	194	34	7.6
	Other respiratory diseases	156	44	8.6	191	70	11.4
Digestive diseases	Chronic liver disease including cirrhosis	62	4	1.7	36	4	1.5
	Other digestive diseases	114	6	1.5	170	24	4.2
External causes	Suicide	26	..	..	8	..	..
	Other external causes	97	..	..	67	..	..
Other causes	Infectious and	24	..	..	35	..	..

	parasitic diseases						
	Mental & behavioural disorders	133	4	0.6	264	3	0.9
	Other	310	11	0.3	484	25	3.2
Neonatal mortality	Deaths under 28 days	18	2	1.9	13	0	0.3
TOTAL		3684		100	3885		100.0

Recommendation
 The Health and Wellbeing Board needs to consider the relationship between its long term goals in the Health and Wellbeing strategy and the need to take action now to reduce the three main causes of inequality: cancer, especially lung cancer, cardiovascular and respiratory deaths.

5. Heart disease and Stroke

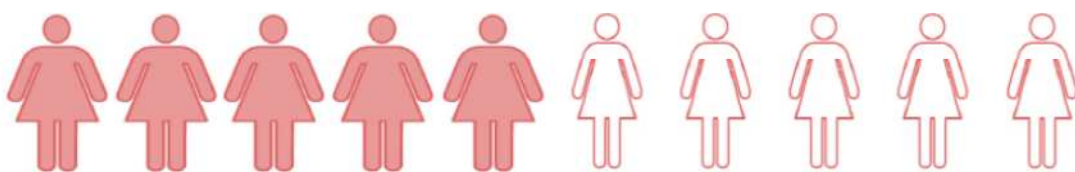
5.1 Obesity in adults

In Rotherham, like the rest of England, the majority of the adult population is now overweight or obese.

More than 6 out of 10 men are overweight or obese (66.5%)



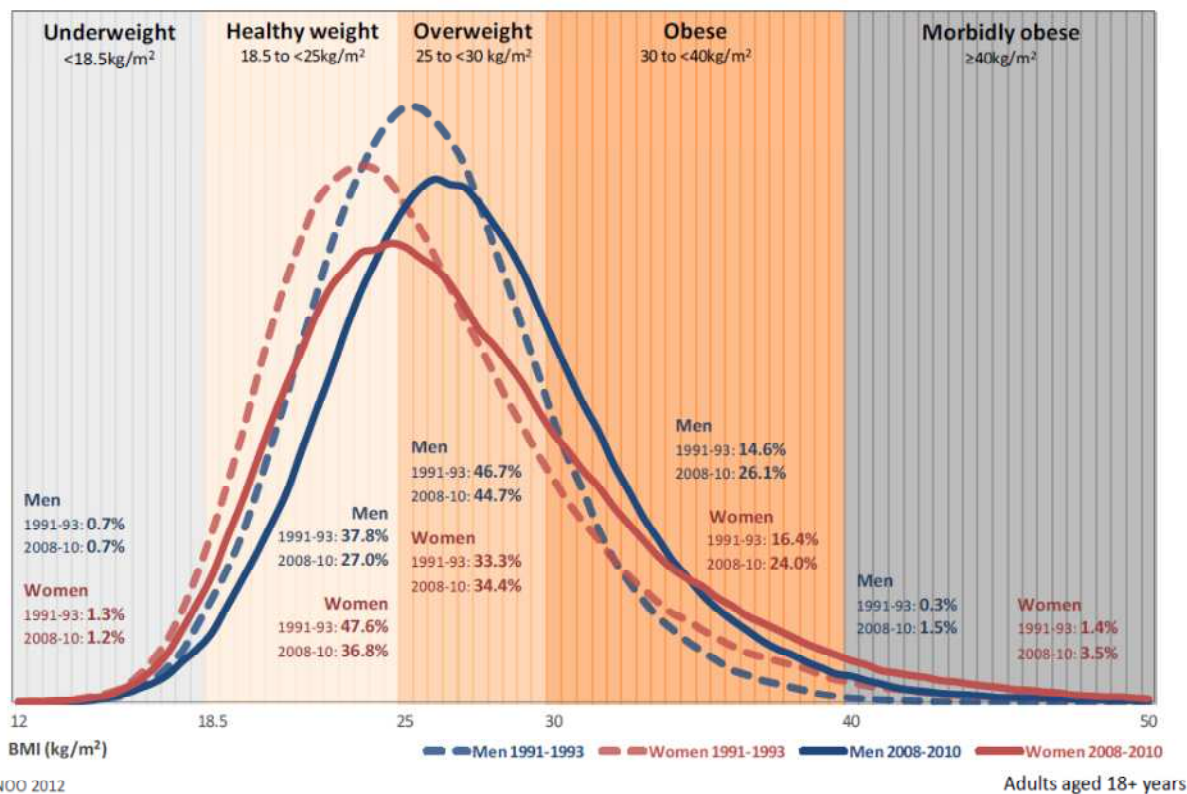
More than 5 out of 10 women are overweight or obese (57.1%)



Obesity has been increasing rapidly over the last few years, so now more of the population are obese or morbidly obese than they were in the 1990s. Since then the proportion of the population that is a healthy weight has dropped by around 10%.

Change in the adult BMI distribution

Health Survey for England 1991-1993 and 2008-2010 (population weighted)



This graph shows how in the last 10 years we have simply all got fatter. Seeing this sort of change in such a short space of time will have a huge effect on people's health.

This shift of the whole population to a greater weight is one of the fastest and most important demographic changes we have ever seen. Obesity is a key risk factor for high blood pressure and diabetes, both of which can lead to coronary heart disease and stroke; obesity is therefore a key factor fuelling premature deaths from circulatory disease. Modern preventative medicine is directed towards reducing the complications of chronic disease (tertiary prevention) rather than tackling the underlying cause.

In Rotherham the prevalence of obesity in adults (over 16 years of age) is significantly worse than the England average, with the latest local estimate of 28.5% of adults in Rotherham classified as obese, compared to an average of 23% in England⁶.

⁶ Public Health England (2014) Prevalence of underweight, healthy weight, overweight, obesity, and excess weight among adults at local authority level for England <http://www.noo.org.uk/visualisation>

5.2 Cardiovascular mortality

The age-standardised rate of mortality from all cardiovascular diseases (including heart disease and stroke) in persons less than 75 years of age is 72 per 100,000 population, 18% above the England average. The actual number of under-75 deaths from cardiovascular disease in Rotherham is large and each year is equivalent to the number of people who could fit on nine double-decker buses. *[infographic here]*

A large proportion of these deaths remain preventable. Heart disease and stroke mainly affects people older than fifty years and age is the main determinant of risk. Apart from age and gender, three modifiable risk factors – smoking, raised blood pressure and raised cholesterol – make a major contribution to cardiovascular risk, particularly in combination. These risk factors account for 80% of all cases of premature coronary heart disease (CHD)⁷ and these risks appear to be increased by outdoor air pollution. The risk of a future CVD event can be calculated from these risk factors and people at highest risk can be identified by their GP. Obesity contributes directly to two of these factors: high blood pressure and cholesterol. Obesity needs addressing directly rather than simply treating the symptoms of high blood pressure and raised cholesterol.

Excess body fat directly reduces life expectancy; it increases the likelihood of diseases, particularly heart disease, type 2 diabetes, obstructive sleep apnoea, certain types of cancer and osteoarthritis.

The main effect is the complex interaction of obesity, diet, cholesterol, high blood pressure and the risk of heart disease and stroke. As your body mass index increases, in general, cholesterol levels and triglyceride levels increase and your risk of a heart attack or stroke increases⁸. These risks are further increased if you smoke or are exposed to air pollution.

The NHS Health Check programme is key to our *Health and Wellbeing Strategy* aims of tackling the risk factors that lead to early mortality from cardiovascular disease.

At the core of the NHS Health Check is a behavioural and physiological risk assessment that offers the opportunity to manage the risk factors and reduce cardiovascular disease. There is a very strong evidence base that brief interventions by GPs will deliver significant behaviour change. As part of the local council Public Health offer to Rotherham people, interventional behaviour change services offered include weight management services, stop smoking services, health trainers and specialist and GP alcohol services.

⁷ Emberson JR, Whincup PH, Morris RW et al. (2003) Re-assessing the contribution of serum total cholesterol, blood pressure and cigarette smoking to the aetiology of coronary heart disease: impact of regression dilution bias. *European Heart Journal* 24: 1719–26.

⁸ Thelle et al. *Br Heart Journal* 1983;49:205-13.

In Rotherham, General Practice is at the centre of the NHS Health Check programme. I think that this is right and that this offers Rotherham GPs the best opportunities to build a preventative approach into their daily practice. We have one of the best performing NHS Health Check programmes with 57% of people in Rotherham having completed a first Health Check since 2006. We will, however, need a step change in performance to achieve the new target of screening everyone aged 40-74 every five years.

5.3 Tackling premature heart disease and stroke

If you are worried about heart disease or stroke

- **Increase your level of physical activity.** Obesity is primarily caused by excessive food energy intake and lack of physical activity.
- **Reduce your energy intake** by reducing portion size, cutting out high calorie foods and not eating between meals.
- **Cut down on saturated fats** in the diet, they increase cholesterol and triglyceride levels. Pies, pasties, sausages, burgers, processed kebabs, cheese and pastries and the use of cooking oil all contribute saturated fat to the diet. Reducing saturated fat is key to weight loss and reducing harmful levels of lipids in the blood.
- **Eat low energy unprocessed foods** and increase your intake of dietary fibre. Avoid foods or drinks with a high sugar content.
- **Eat a 'rainbow' of fruit and vegetables**, having at least 5 portions every day
- **Get a health check**

Recommendations

- We must offer everyone aged 40-74 a health check every five years screening 20% of the eligible population annually with a 90% uptake.
- Physical activity should be commissioned as a direct intervention to prevent morbidity in long term conditions.

6. Cancer

Cancer incidence in Rotherham is higher than the average with lung and colorectal cancers being especially high. This reflects the higher than average prevalence of smoking and other

lifestyle risk factors. Tackling tobacco use and obesity are priorities for sustaining the long-term reduction in premature cancer deaths.

The age-standardised rate of mortality from all cancers in persons less than 75 years of age is 124.1 per 100,000 population, nearly 15% above the England average.

Smoking is the single most important factor in causing avoidable cancer deaths. Over 90% of lung cancer is caused by smoking and it is also a significant contributory factor for head and neck, stomach, bladder and kidney cancers⁹. Obesity is causal in an increased risk of breast and ovarian cancer.

Smoking prevalence in adults is 23.3% a full 3% higher than the England average, and we know that in many Rotherham communities more than 40% of adults smoke.

6.1 Improving Early Detection of Lung Cancer in Rotherham

Lung cancer is the leading cause of death from cancer in both men and women. It is responsible for about a sixth of the inequality in life expectancy between Rotherham and England. At a local level, it is responsible for a sixth of the inequality in male life expectancy and a twelfth of the inequality in female life expectancy between the most and least deprived quintiles. Put another way, there is an excess of 81 deaths from lung cancer in the most deprived 20% of Rotherham citizens compared with the least deprived 20%¹⁰ and this represents 70% of the excess deaths from lung cancer in Rotherham compared with England.

Overall survival at 1 and 5 years after diagnosis is poor compared with other cancers. This is believed to be due to the relatively late stage of presentation with disease by Rotherham people. However, disease caught and treated at an early stage is associated with good survival rates.

While controlling tobacco use is the key to sustaining a long-term reduction in lung cancer incidence, taking steps to reduce mortality from lung cancer is also an important near-term goal for reducing years of life lost and narrowing health inequalities.

6.2 Tackling Premature Cancer deaths

The detection of cancer through the urgent 2-week-wait pathway from GP to hospital in

⁹ Lung cancer risk factors, Cancer Research UK 2013, available from <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/lung/riskfactors/lung-cancer-risk-factors>

¹⁰ The Segment Tool, PHE 2014, available from http://www.lho.org.uk/LHO_Topics/Analytic_Tools/Segment/TheSegmentTool.aspx

Rotherham is worse than average; this is combined with a worse than average referral rate from general practices. This suggests that people may be putting off seeking help when they have the early signs and symptoms of cancer, or that they may not know what are important early signs and symptoms of cancer or that GPs faced with the high levels of lung conditions in the community are not recognising significant changes in symptoms.

Awareness raising to encourage people to seek help when they have early signs or symptoms of cancer – particularly lung and breast – is a priority for achieving a short term reduction in premature cancer deaths.

Recommendations

- Stopping smoking should be the key priority for the Borough in tackling excess cancer deaths
- The CCG should actively promote awareness of early signs and symptoms of cancer and how and where to seek help as this could quickly save lives
- Faster referral pathways and lowered thresholds for referral by GPs, particularly for lung cancer, are required to ensure a higher proportion of lung cancers are detected through the 2 week wait system.

7. Liver Disease and Other Digestive Disease

Deaths from liver and other digestive diseases contribute over 4% to our inequalities.

The main threat to life from gastrointestinal disease is bleeding either from duodenal or gastric ulcers or bleeding from varicose veins caused by liver cirrhosis. A significant avoidable factor in the cause of gastrointestinal bleeding is the use of non-steroidal anti-inflammatory drugs which predispose patients to ulcers.

In liver cirrhosis blood cannot flow easily through a damaged cirrhotic liver so it finds an alternative route to circulate around the oesophagus and rectum, and these distended – varicose veins burst with catastrophic results.

Recommendation

Rotherham CCG should continue to prioritise reducing the use of prescribed non-steroidal anti-inflammatory drugs.

7.1 Liver Disease

In Rotherham the age-standardised rate of mortality from liver disease in persons less than 75 years of age is 15.7 per 100,000 population, 9% above the England average. Liver cirrhosis is now the fifth most common cause of death in the UK. There is an increasing trend in both the incidence and prevalence of cirrhosis with an estimated 45% increase in incidence of cirrhosis between 2000 and 2010. Just over half of all cirrhosis is associated with alcohol consumption; the other major causes are obesity and hepatitis.

In England and Rotherham we are facing a steep increase in liver cirrhosis and the complications of liver disease – bleeding from the gastro-intestinal tract and the effect on people's brain from the build-up of toxic chemicals leading to coma and death (hepatic encephalopathy).

7.2 Hepatitis

Hepatitis is mainly caused by viruses Hepatitis B and C, which are transmitted via blood, other body fluids or sexually.

Controlling hepatitis through vaccination of at risk groups and preventing transmission from contaminated needles and syringes in those who inject drugs is a public health priority for the Borough.

7.3 Alcohol

Alcohol is not only important as a cause of liver cirrhosis, it also contributes to deaths from cancer, heart disease, accidents and mental health.

We can predict that within the adult population of Rotherham 7,086 individuals are dependent on alcohol, with a further 10,432 drinking at harmful levels and 51,569 drinking above low risk.

Using national Alcohol Concern¹¹ calculations based on hospital activity statistics (2009/10) for Rotherham there were 53,689 alcohol related hospital attendances at Rotherham Hospital. Of these, 28,827 were in A&E, 18,275 in outpatients and 6,587 inpatient stays were related to alcohol. The majority of inpatients (2,658) were aged 55-74.

ROTHERHAM COST BREAKDOWN

NHS: £21.75m

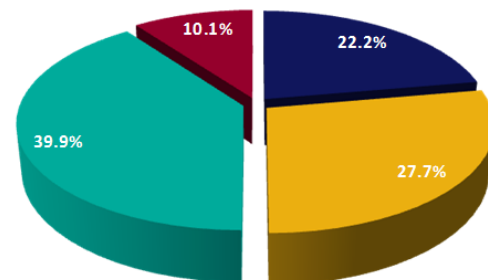
CRIME AND LICENSING: £28.29m

WORKPLACE: £39.02m

SOCIAL SERVICES: £9.90m

TOTAL COST*: £97.80m

*Total cost excludes crime related healthcare costs



Public Health England estimates the local societal cost of alcohol use in 2011/12 was £97.80m for Rotherham, comprising:

- £21.75 million in the NHS
- £28.29m on crime and licensing
- £39.02m in the workplace
- £9.09m in social services

¹¹ Alcohol Concern (2013) The real cost of alcohol: a map of alcohol harm across England.

<http://www.alcoholconcern.org.uk/campaign/alcohol-harm-map>

In 2012/13 Rotherham had 591 people in receipt of specialist treatment for alcohol dependency; 77% of those in treatment live with children. In addition many more children have parents with harmful and risky drinking patterns, which means the number of children impacted by their parents' alcohol dependency is significant. Only a small number of those we believe to have problematic drinking are seeking treatment. This may be for a number of reasons including a lack of awareness of the risks. This is why increasing use of an evidence based screening tool is at the centre of the Health and Wellbeing Strategy.

Many of those with harmful drinking are not seeking or accepting services until their alcohol consumption is very high. In the 28 days prior to entering treatment 80% were drinking at higher risk levels compared to 75% nationally. In Rotherham 37% consumed over 600 units and 23% consumed between 401-600 units in the 28 days prior to treatment. 600 units over a 28 day period is the equivalent of more than 7.5 pints of 5% lager a day.

Our local strategy has been to promote screening for risky drinking within GP practices. In 2011/12 2,780 screenings were undertaken. We are committed to increase this, both in the GP setting and in the community. Increasing take up of the NHS Health Check will also lead to an increase in the number of alcohol screenings carried out.

7.5 Tackling liver disease

If you are worried about liver disease

- **Be aware of the alcohol percentage content of what you drink, as well as understanding what a unit of alcohol is.**
- **Seek help to reduce or stop drinking alcohol altogether.**
- **Avoid risky behaviour.** Get help to reduce the risks if you use illicit intravenous drugs. Don't share injecting equipment used to inject drugs. If you choose to have sex, use condoms.
- **Get vaccinated.** If you're at increased risk of contracting hepatitis or if you've already been infected with any form of the hepatitis virus, talk to your doctor about getting the hepatitis B vaccine
- **Use medications wisely.** Only use prescription and non-prescription drugs when you need them and take only the recommended doses. Don't mix medications and alcohol. Talk to your doctor before mixing herbal supplements or prescription or non-prescription drugs.
- **Avoid contact with other people's blood and body fluids.** Hepatitis viruses can

be spread by accidental needle sticks or improper clean-up of blood or body fluids. It's also possible to become infected by sharing razor blades or toothbrushes

- **Choose a healthy diet and maintaining a healthy weight.** Obesity causes non-alcoholic fatty liver disease, which includes fatty liver cirrhosis.

Recommendations

- Reducing the volume of alcohol consumed in the Borough needs to be the agreed theme for the introduction of making every contact count (MECC), whilst maintaining quick and easy access to services that can respond to those identified as risky drinkers.
- Services and GPs should be active in making the hepatitis vaccine available to risk groups and better clinical screening for early detection and treatment.
- Hepatitis prevention needs to be a priority for environmental health and for the sexual health and the drugs service.

8. Mental Wellbeing

Suicide is the most devastating outcome of both long term mental illness and people's response to economic hardship and distress.

As a consequence of the economic austerity, suicide rates nationally have shown a reversal from previous years when there had been a steady decline. Locally Rotherham has also seen an increase in the number of death registrations classified as suicides/deaths of undetermined intent. These deaths fell sharply between 2007 and 2010 but have increased in 2011 and 2012. Rotherham's suicide rate for 2012 is now above the England average. In 2013 the Suicide Prevention Group received notification of 17 deaths, 16 male and 1 female.

Suicide amongst males is at its highest in Rotherham since 2002 with more middle aged men (30-44 and 45-59 year old age groups) taking their own life. The latest suicide prevention strategy for England¹² and a recent report from The Samaritans¹³ have both identified middle aged men, especially those from poorer socio-economic backgrounds as one of the high-risk groups who were a priority for suicide prevention.

¹² HM Government (2012) Preventing suicide in England: A cross-government strategy to save lives <https://www.gov.uk/government/publications/suicide-prevention-strategy-launched>

¹³ Samaritans (2012) Men, Suicide and Society: Why disadvantaged men in mid-life die by suicide.

Young males must continue to be a priority group for suicide prevention both nationally and locally. In Rotherham the expected number of suicides amongst 15-19 year olds would be one or two every two years. Between 2011 and 2013 we have had four deaths amongst this age group. This has devastating consequences for the families of these young people.

Mental health problems are related to deprivation, poverty, inequality as the social and economic determinants of poor health. People with long term mental health problems are also more likely to be in the most disadvantaged sections of society. Austerity increases the risk factors for poor mental health of the whole population, in addition to the people affected and their families¹⁴. The population groups most affected are those on low income, those who face loss of income and/or housing. In Rotherham the underlying economic determinants of mental health are worse than the national average. Rotherham's strong sense of community is a solid local factor that helps people cope.

Suicide is not the best measure of a population's mental health because it does not explain the incidence and prevalence of mental health problems. The prevalence rate for depression amongst adults aged 18 plus in Rotherham is 14.9% with the average for England being 11.68%. Depression represents 12% of the total burden of non-fatal global disease and by 2020 the World Health Organisation predicts this will be second, after cardiovascular disease, in terms of the world's disabling diseases. Major depressive disorder is increasingly seen as chronic and relapsing, resulting in high levels of personal disability, lost quality of life for patients, their family and carers, multiple morbidity, suicide, higher levels of service use and many associated economic costs. However there are still limitations to using data on diagnosis as a measure of a population's mental health and well-being as it relies on people identifying and admitting to having a mental health problem and then accessing services. In fact the population's mental health can be measured by a variety of health and non-health measures. The New Economics Foundation¹⁵ explains that well-being can be explained by how people feel, how they function and how they evaluate their lives. In Rotherham more people report low satisfaction with life nowadays, low happiness and high anxiety levels than the national average.

8.1 Tackling mental ill-health

Research shows that when we improve wellbeing and prevent mental health problems it will improve many of the factors influencing both overall life expectancy and healthy life expectancy. This requires commitment across the public sector to development a Rotherham Mental Health Strategy which will outline local action to promote wellbeing, build

¹⁴ WHO (2011) *Impact of economic crises on mental health*

¹⁵ New Economics Foundation (2012) *Measuring Well-Being: A Guide for Practitioners*

resilience and prevent and intervene early in mental health problems in Rotherham.

Recommendations

- Rotherham MBC should develop a Rotherham Mental Health Strategy outlining local action to promote wellbeing, build resilience and prevent and intervene early in mental health problems.
- Mental health promotion messages should be an agreed theme within Making Every Contact Count (MECC).

8.2 Suicide Prevention

In Rotherham we have a multiagency Suicide Prevention and Self Harm Group which provides a coordinated approach to suicide prevention and self-harm in Rotherham. The group leads on:

- **Increasing local understanding** of suicide and suicide prevention amongst the statutory and voluntary sector and local community groups.
- **Reviewing deaths**, observing local trends and taking appropriate action where necessary to reduce access to the means of suicide.
- **Introducing interventions which reduce risk in high risk groups**, for example the development of specific pathways of care for groups like veterans, people experiencing domestic abuse, young people.
- **Implementing the bereavement support pathway** for adults and children and young people who are bereaved by suicide.
- **Supporting local media in delivering sensitive messages about suicide**, using the opportunity to advertise help and support.
- **Continuing to train the wider workforce to be able to identify and respond when people are at risk of suicide.** In Rotherham we have developed the CARE pathway for suicide intervention (Change, Ask, Respond and Explain).
- **Continuing to provide training on mental health**, wellbeing and resilience to frontline staff.

9. Respiratory Disease

9.1 Air Quality

The age-standardised rate of mortality from respiratory disease among people aged less than 75 years is 30.4 per 100,000 population, significantly higher than the England average. Deaths from pneumonia, account for around 30% of respiratory disease deaths.

Apart from smoking the main avoidable factor in respiratory disease is air pollution as a result of contamination of the outside air by particles. Industrial exposure to dust and smoke is common in people who worked in Rotherham's mines or steelworks in the past and this is particularly pertinent if they are or have been a smoker, worsening their respiratory symptoms.

Clean Air Acts and the decline in heavy industry have vastly improved the visible quality of the air we breathe over the last 60 years. However, the size of smoke and exhaust particles we breathe in air has decreased, with the majority of this fine particulate matter coming from vehicle exhausts. Fine-particulate matter with a diameter of 10 to 2.5 microns or less (known as PM₁₀ or PM_{2.5}), penetrate deeply into the alveolar region of the lung and from there can pass directly into the blood. It is associated with an increased risk of heart disease. In a recently published study in the *BMJ*¹⁶ long-term exposure to fine particulate air pollution was associated with increased mortality from coronary events, even within concentration ranges well below the present European annual mean limit value. This will result in added mortality risk for those with other risk factors for heart disease such as smoking or obesity.

9.2 Air pollution and its effects on health

The Public Health Outcomes Framework uses data from the Committee on the Medical Effects of Air Pollutants (COMEAP) and from local monitoring to assign the fraction of overall mortality to particulate air pollution. Rotherham's fraction is 5.39% which, although average for an urban area, is much higher than non-urban areas; for example the North Yorkshire figure is 4.05%. It is the absolute number of deaths this affects that is significant; calculations by Public Health England attribute 1 in 20 deaths to air pollution. These figures are estimates, but the effect on those living in poor air quality zones is likely to be significant.

A 5µg/m³ increase in annual mean PM_{2.5} exposure is associated with a 13% increased risk of coronary events a 10µg/m³ increase in PM₁₀ with a 12% increase in risk.

¹⁶ Cesaroni G et al (2014) Long term exposure to ambient air pollution and incidence of acute coronary events: prospective cohort study and meta-analysis in 11 European cohorts from the ESCAP Project. *BMJ* 2014;348:f7412

These problems are not fairly distributed in our society – people in the most deprived neighbourhoods, who often don't have access to a vehicle themselves, are typically exposed to the highest levels of pollution as they live closer to major roads or heavy industry. Actions to reduce air pollution will lead to a reduction in health inequalities in the Borough.

The combination of the historical burden of respiratory disease from heavy industry, higher than average smoking and the new and emerging evidence about air pollution are significantly impacting on health inequalities in the Borough.

9.3 Tackling air pollution

- A lot of the air pollution problems affecting Rotherham residents come from the traffic on the M1 motorway. Actions to reduce the speed of traffic on the motorway, and to improve traffic flow to reduce the number of cars running stationary (especially on on-ramps and off-ramps) are likely to help reduce air pollution.
- Reductions in the number of vehicle journeys will reduce air pollution. The council is working through a number of mechanisms to achieve this, from improving public transport, to measures that encourage cycling and walking.
- Actions that reduce energy use in homes will reduce domestic production of air pollution. The council has an extensive program to improve insulation in council operated properties.

Recommendation

Rotherham Council should note the significant effect of air quality on mortality and that improvement in air quality, particularly reducing levels of PM 2.5 to PM 10 should be a priority for the Borough.

10. Mortality from Infectious Disease

According to the Public Health Outcome Framework data Rotherham has a high rate of death for infectious disease with 39.8 deaths per 100,000 population compared to the England average of 22.9. This contributes significantly to our health inequalities. According to death registrations between 2009 and 2011 the vast majority of these deaths, 516 over

the three years, were for pneumonia and influenza and it is these deaths that account for Rotherham's communicable disease death rate being significantly higher than England's.

Pneumonia and influenza deaths are included within the respiratory category in Table 1, contributing to 14% of the inequality in mortality.

Pneumonia deaths are heavily weighted to the elderly and those with pre-existing lung or other chronic disease. Rotherham has a higher percentage of pneumonia deaths within the over-65 age group than England. The over-85 age group has the greatest percentage of pneumonia deaths, but the rate in Rotherham is lower than that in England (over 50% for Rotherham and over 60% for England).

10.1 Tackling pneumonia and communicable disease

Smoking is the major avoidable factor in lung damage predisposing to pneumonia. However influenza infections are also a significant and avoidable factor in causing pneumonias.

Influenza, or flu, is a respiratory illness associated with infection by influenza virus.

Symptoms frequently include headache, fever, cough, sore throat, aching muscles and joints. Deaths from flu are usually caused by secondary bacterial infections causing pneumonia in those with conditions that make them more susceptible.

Death rates from flu are 0.4 per 100,000 population; these rise to between 10 and 20 per 100,000 for some at risk groups. Risk groups include those with chronic lung and heart conditions, asthma, neurological conditions and liver disease and the elderly. Improving vaccine uptake rates in risk groups will protect them from the complications of flu.

Apart from stopping smoking, influenza is therefore the most important modifiable risk factor for death from pneumonia/communicable disease.

Influenza immunisation has been recommended in the UK since the late 1960s, with the aim of directly protecting those in clinical risk groups who are at a higher risk of influenza associated morbidity and mortality. In 2000, the policy was extended to include all people aged 65 years or over. In 2010, pregnancy was added as a clinical risk category for routine influenza immunisation. In 2012, the Joint Committee on Vaccination and Immunisation (JCVI) recommended that the programme should be extended to all children aged two to 18 years. The phased introduction of this extension began in 2013 with the inclusion of children aged two and three years in the routine programme. From September the programme is being extended to all children aged 12-18 in schools. This is designed not only to protect children but to disrupt transmission of the virus to and reduce deaths within vulnerable risk

groups.

Pneumococcal vaccines also protect against the most common types of pneumonia by reducing the number of cases that occur and also by reducing the severity of infection when it does occur. They are recommended for all those aged 65 and over.

It is also essential that we ensure high rates of vaccination and immunisation uptake for both this and the flu vaccine in those aged 65 years and over, as essential components of a safe and effective community health system which will contribute to the reduction in morbidity and mortality associated with pneumonia.

10.2 Antibiotic Resistance

People suffering life threatening bacterial infections (including pneumonias) need effective antibiotics.

Antibiotic resistance is not a new problem; in the past we have simply developed new antibiotics to replace ones to which bugs have become resistant. There has now been no new class of antibiotic discovered since 1987.

It is therefore vital that we look after the antibiotics that we do have. Many people, however, do not complete their course and this can lead to antibiotic resistance. Furthermore, doctors and nurses should only prescribe antibiotics when they are really needed and only use recommended antibiotics for specific conditions— not for ordinary coughs and colds. When a GP tells us that it's a virus and that antibiotics won't help, we all need to listen and not demand to be given antibiotics.

The Chief Medical Officer in her 2013 Annual Report highlighted the worldwide crisis in the development of antibiotic resistance.

Recommendations

- Rotherham Clinical Commissioning Group and NHS England should consider flu vaccination a priority for Rotherham. Achieving 90% uptake of flu vaccination in the extension of immunisation to all children under 18 this September should be a priority for the Health and Wellbeing Board.
- Rotherham Clinical Commissioning Group should implement the local actions outlined in the Chief Medical Officers 2013 Annual Report on Antimicrobial Resistance.

Appendix 1: Public Health Outcomes Framework indicators

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263658/29015_02_PHOF_Improving_Outcomes_PT1A_v1_1.pdf

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