

JSNA: Smoking

Introduction

Smoking is the most significant preventable cause of ill health, premature death, and health inequalities in Bolton.

Smoking is associated with over fifty different diseases and disorders including cardiovascular disease (CVD), chronic obstructive pulmonary disease (COPD) and other respiratory conditions, a number of cancers including lung, mouth, lip, throat, bladder, kidney, stomach, liver, and cervical, as well as musculoskeletal problems, blindness, and mental health problems. Smoking is also strongly associated with problems in pregnancy and infant mortality. Half of all people who smoke will be killed by it, losing an average of 16 years of life.

Whilst the prevalence of smoking has reduced in recent years in Bolton, approximately a fifth of the adult population are current smokers and ten people die each week in Bolton from smoking related illnesses.

This chapter considers smoking in its broadest meaning, include all tobacco products (chewing tobacco and shisha pipe smoking as well as cigarettes) and including the harmful effects of second hand smoke.

Implications for commissioning

The most significant gains in smoking prevalence will most likely come from central policy and restrictions in the market.

Locally in Bolton our key target groups have been defined as:

1. Routine and manual workers;
2. Pregnant women;
3. People with mental health problems;
4. BME communities, especially South Asian men;
5. Children and young people.

The key settings to tackle smoking in Bolton are:

1. Schools;
2. Workplaces;
3. Healthcare;
4. Neighbourhood Renewal Areas (NRS Areas).

Bolton's Tobacco Control Strategy 2011-14¹ makes specific recommendations designed around these key groups and settings. Full recommendations and the full report are available on Bolton's Health Matters [here](#).

Who's at risk and why?

All of the population is at risk of harm from tobacco use, although some particular groups in society are more at risk than others.

Smoking is strongly associated with socioeconomic deprivation and as such is one of the leading causes of health inequalities in Bolton. In the North West, local area deprivation is a greater predictor of smoking prevalence than either sex or age and the likelihood to smoking is 2.5 times higher in the most deprived communities².

Smoking is higher in men than women, and in routine and manual workers. Routine and manual workers are more likely to have started smoking by the time they are 16 years of age, they are also more likely to be heavily addicted to smoking with 37% of routine and manual male smokers reporting having their first cigarette in the first five minutes of waking, a sign of heavy addiction³.

At first sight, Bolton's South Asian community appears to have a lower smoking prevalence than the White British population, but this almost exclusively a product of the very low prevalence found in South Asian women – South Asian men have a smoking prevalence similar to the White British population of Bolton. Whilst they may also not be using cigarettes, people from South Asian backgrounds may be using other forms of tobacco such as chewing tobacco or shisha pipe smoking.

Smoking is also one of the few modifiable risk factors in pregnancy and is the largest preventable cause of neonatal and infant ill health and death in the UK⁴. Children born to mothers who smoke have higher risk of sudden infant death, complications in pregnancy, asthma, impaired lung function in childhood and adulthood and are more likely to have a lower birth rate. Smoking in pregnancy is higher in younger mothers compared to older, while nationally 75% of lone parents on social security benefits smoke.

The World Health Organisation (WHO) estimates that half of children and worldwide live with at least one smoker. Directly and indirectly, children and young people are significantly

¹ Bolton Council MBC (2011) *Tackling Tobacco Together: Bolton Tobacco Control Strategy 2011-14*, Bolton Council MBC.

² Tocque, K. (2010) *Closing the smoking gap: Estimates of smoking prevalence in North West Local Authorities*, KT Intelligence.

³ Department of Health (2009) *Tackling Health Inequalities: Targeting routine and manual smokers in support of the public service agreement smoking prevalence and health inequality targets*, DoH.

⁴ Royal College of Physicians (2000) *Nicotine addiction in Britain*, RCoP.

affected by smoking. They are affected in utero if their mother is a smoker, then in home environment and subsequently if they become smokers themselves. Children of parents who smoke are two to three times more likely to become smokers themselves⁵.

Finally, people with mental health problems have a far higher smoking prevalence than the general population, and as discussed in the Mental Health JSNA chapter the highest rates of smoking in any population group occur among inpatients in mental health units where up to 70% smoke, with 50% smoking heavily. This group is also much less likely to be offered interventions and encouragement to quit from health professionals.

The level of need in the population

Impact on life expectancy

Smoking is still very high in the most deprived areas of Bolton and this contributes to the significant inequality gap in life expectancy within the borough. Also, men have a higher smoking prevalence than women and this exacerbates the life expectancy gap between the genders.

Mortality

Smoking is associated with many chronic illnesses and conditions, including CVD and cancer – Bolton’s two biggest killers.

Bolton has a level of smoking attributable deaths (277.0 per 100,000) that is both higher than England (216.0) and the North West region (264.9). Bolton also has a higher mortality rate than both the national and regional averages for smoking attributable deaths from heart disease (44.9), smoking attributable deaths from stroke (16.6), lung cancer (47.7), and COPD (35.2).

Prevalence

Current smokers make up approximately 20.5% of the adult population of Bolton, with 4.7% of adults being heavy smokers (20+ cigarettes a day). The proportion of smokers in Bolton has fallen consistently from 30% in 2001 to 23% in 2007 and 20.5% as most recently measured in 2010. However, from modelled estimates we know Bolton has a higher smoking prevalence than the England average, but is lower than average for the Greater Manchester conurbation.

Smoking levels steadily decrease as we move from the most deprived fifth of the population to the least deprived fifth. In Bolton the most deprived and quintile 2 have the highest

⁵ Farkas, A. et al (2000) ‘Association between household and workplace smoking restrictions and adolescent smoking’ in *Journal of American Medical Association* 6:717-22.

smoking prevalence, the latter is now the highest (though not significantly so) and this is a recent change in the pattern. The difference between the population smoking rate for Bolton and England is approximately 3%, but this difference is much wider when we compare the smoking rate of Bolton's routine and manual group (38.4%) and the average for this group across England (30.0%).

By geographical area, there is a clear inequality in smoking prevalence across the borough with just 8% of residents in Turton smoking compared to 30% in the more deprived areas of Tonge Moor & Hall i'th' Wood, Burnden, Brightmet N & Withins, and Tonge Fold.

Men in Bolton are more likely to smoke than women and younger age groups show the highest smoking rates, but the middle age groups have the highest levels of heavy smoking (20+ cigarettes a day). Overall, smoking is more prevalent in the White British population of Bolton, however rates in South Asian men are as high as those in White British men – the difference is almost exclusively a result of the extremely low smoking rate in South Asian women. In Bolton, the BME groups with the highest smoking prevalence's are White Other and Asian Pakistani.

In addition, Bolton's disabled and lesbian, gay, and bisexual (LGB) groups both exhibit very high smoking prevalence. Both these equality groups have a statistically significant higher rate than the general population of Bolton, but the LGB group with a rate of 38.9% demonstrates the highest prevalence of all the key groups analysed in the survey.

Compared to the North West, Bolton is around average for smoking prevalence. The areas of highest prevalence are the two major cities (Manchester and Liverpool) and the very deprived areas such as Knowsley and Salford.

According to the 2009 Trading Standards North West report on young people's alcohol and tobacco use, 25% of 14-17 year olds in Bolton claimed to be smokers, which is an increase from 23% seen in 2007.

Smoking is one of the few modifiable risk factors in pregnancy and is the largest preventable cause of neonatal and infant ill health and death in the UK. Bolton's smoking in pregnancy rate (2011/12) is 18.3% compared to just 13.20% nationally and 17% across the North West. Children born to mothers who smoke are at increased risk of sudden infant death, complications in pregnancy, asthma, impaired lung function, and low birth weight. From women who have given birth at the Royal Bolton, 44% of those under 20 are smokers at time of delivery, and this rate falls significantly to 27% for women aged 20-24 years, to 19% for those aged 25-29, 12% in 30-34 year olds, and 15% for those over 35 years.

South Asian communities also use chewing tobacco and smoke shisha pipes, otherwise known as 'hubble bubble' or 'hookah', which also poses a danger to health, especially

concerning oral cancers. Shisha pipe smoking is another area of smoking related harm pertinent to BME communities and Bolton has a number of shisha cafes.

Key JSNA Indicator Sheets

BEHAVIOUR AND ACCESS TO SERVICES: Smoking

MORTALITY: Smoking Attributable

Current services in relation to need

Bolton has a rate of 1468.9 per 100,000 smoking attributable hospital admissions. This is higher than the national average (1417.2) but lower than average for our region (1594.5). The cost per capita of these admissions is 40.7, again higher than England (37.9) but lower than the North West (43.0).

Bolton has a higher rate of lung cancer registrations (62.1 per 100,000) than England (48.3) and the North West (59.0), and a rate of 10.1 per 100,000 for oral cancer registrations which is higher than England (8.9) but similar to the region (10.4).

Since 2003 Bolton NHS Stop Smoking Service has helped 14,000 people to quit smoking. Community quit groups, seven week intensive quit groups, and one-to-one therapy sessions are available as are services based at the maternity unit, in local pharmacies, and in GP practices. The Stop Smoking Service provides a drop-in service at twelve health centres across Bolton (individual appointments are also available). Twenty five hours' worth of drop-in's are provided, including four evening sessions and a Saturday morning drop-in.

A repeat of the health equity audit of the local Stop Smoking Service originally carried out in 2007 demonstrates an improvement in the proportion of people from deprived parts of Bolton successfully quitting with their quit rate almost equal to those living in the least deprived areas (41% compared to 43%).

A Stop Smoking Specialist is employed at the Royal Bolton Hospital to work with the hospital, train staff in giving advice and support to patients who smoke, and to design new practices and procedures to make it easier to encourage patients and visitors to quit.

The Bolton Smoke Free Homes project asks local people to make a commitment to keep their homes smoke free to protect adults and children from second-hand smoke. In 2012, approximately 2,200 homes in Bolton have signed up to this project and 3,400 children live in these homes, of which approximately 57% are situated in Neighbourhood Renewal Areas (NRS).

A Pregnancy Advisor is employed to provide home visits for pregnant women who prefer this option.

Cost-effectiveness

The cost of treating smoking related disease in Bolton is significant and important given the current financial climate. Approximately £5 million is spent on prescribing respiratory items each year by NHS Bolton alone and respiratory conditions account for around 25,000 bed days each year. Recent studies demonstrate that investment in tobacco control can significantly reduce healthcare expenditure to the extent where we can expect to gain a 50 fold return on investment. The benefits of reducing the associated CVD, cancer, and respiratory conditions appear within two years and the cost reductions can then be expected to grow over time. No other Public Health expenditure provides social and economic returns of the magnitude that will come from reducing smoking prevalence in the borough.

Projected service use and outcomes

As smoking prevalence decreases the costs of poor health outcomes associated with smoking will also fall.

With 25% of young people in Bolton describing themselves as smokers, it seems that even if we continue to decrease smoking in the adult population there are enough young people starting smoking to sustain a high prevalence in Bolton. It is therefore key that specialist smoking cessation services are a part of any future commissioning plans in Public Health. The specialist service in Bolton currently has over 2,000 people per year quitting smoking and over 4,000 people setting a quit date. There is no sign currently of there being less demand for this service and it has just moved some of its services into the new Bolton One Centre which is proving to be very popular.

Patients can also access their service through their GP or local pharmacy meaning that it is a flexible service, able to be accessed whenever the clients wants to.

As well as providing the drop in's for stopping smoking, the service also offers home visits for women who want to quit smoking in pregnancy. As Bolton has a high smoking in pregnancy rate, the demand for this service is expected to remain steady. The service also provides training to staff who work at Royal Bolton Hospital (RBH) to ensure that they are trained to offer smoking cessation advice to patients at RBH. Since the site became smoke free, staff and patients have been being offered advice as well as access to pharmacological therapies to quit smoking. Not all of the hospital however yet have staff trained and not all therapies are available there so the hospital is as yet not running at full capacity for the help it could be offering its patients.

As fiscal interventions continue to increase the price of tobacco, the illicit tobacco industry will become more prominent locally in the future.

In June 2010, new national NICE guidelines were published, 'Quitting smoking in pregnancy and following childbirth,' which made eight recommendations on how best to help pregnant women stop smoking. An action group has now been established to implement these guidelines in Bolton, the most far reaching of them being the recommendation that all pregnant women take a carbon monoxide (CO) breath test at their booking in appointment with a midwife and at each subsequent appointment for women who smoke. This could lead to approximately 7,500 CO tests being carried out each year in Bolton which would have training, cost, and time implications. A pilot is currently being set up in one community midwifery team in Bolton so a protocol can be tested and the evaluation can be used in any roll out of the use of the CO monitors.

Evidence of what works

Bolton's Health Matters has created a collection of evidence and intelligence to ensure best practice in decision within this area. To view this collection, [please click here](#)

Community views and priorities

A health needs assessment⁶ was conducted in three of Bolton's NRS Areas to ascertain peoples' understanding of health, their experiences, expectations, and engagement with services and to allow comparison with other data sources.

From the findings, that there is a gap in these communities between peoples' aspirations to adopt 'healthier' behaviours and them taking action to do so can be explained by their lived situations, and understood in terms of the effect of those situations on their mental wellbeing and its constructs such as self-esteem, self-efficacy, and aspiration – each of which were shown as being relevant to the efficacy and appropriateness of interventions designed to improve health.

The report includes analysis from questions asked regarding smoking and the full report is available on Bolton's Health Matters [here](#).

Equality impact assessments

No recent local equality impact assessments have been carried out that we are aware of. If you are aware of any such work locally please let us know at [Bolton Health Matters](#)

⁶ Griffiths, B. et al (2012) *Concerning Health Matters: Voices from 3 NRS Areas*, NHS Bolton.

Unmet needs and service gaps

Reductions in the smoking rate are evident across all socioeconomic quintiles in Bolton, but the most deprived quintile shows considerably the lowest reduction between 2001 and 2010.

The Stop Smoking Service must continue to try and engage more routine and manual smokers into the service. Improvements are evident in the recent update of the health equity audit, but this population group can be expected to account for half of all smokers in the borough. The best method of engagement has been shown to be in the workplace setting, partly due to shift work preventing attendance at day time services and the group setting provides ongoing support. The 'Clock-on-2-Health' service is also key in this work. Bolton has a very high proportion of routine and manual households (48% of households compared to 32% nationally) and of the 32 postcode sectors in Bolton there are 11 with a routine and manual penetration above 70%.

From the *Bolton Health & Wellbeing Survey 2010* we know that the higher proportions of ex-smokers are generally seen in areas with low rates of current smokers. These areas are commonly the less deprived areas, suggesting that people living in these areas are able to quit smoking more easily than their more deprived counterparts.

Historically, Bolton has performed poorly regarding successful quitters when compared to our statistical peers.

Though the gap has closed recently, cessation rates remain higher in those from more affluent parts of Bolton, but given the higher rates and illnesses in those from more deprived areas of Bolton, this problem must continue to be addressed. There remains a clear disparity between those areas within Bolton with the highest smoking prevalence and those with the highest quit rate.

Although many efforts have been made to reduce smoking in pregnancy in Bolton, the rate remains very high compared to the England average. Poor recording of this data has been highlighted and improvements must be made if we are to accurately assess the effectiveness of interventions. Also, given the very high smoking in pregnancy rate for those aged under 20 it is vital that the specialist pregnancy service ensures its advice is appropriate for this age group. A rebranding of the service as the 'Bump the Habit' service, with new materials and website in the summer of 2012 has gone some way to address this.

Although exposure to second-hand smoke has declined since the smoke free legislation in 2007, the home remains the most common place for exposure. The higher the smoking rate, the more children and young people are exposed to second-hand smoke and its harmful effects in the home environment.

The vast majority of smokers start before the age of 18, by which time they are already addicted to nicotine. Smoking is not an adult choice; it is a childhood addiction which most adults try to quit on numerous occasions. As seen above, the smoking rate in Bolton's young people shows a recent increase. Therefore, Bolton's young people must be prevented from starting and adults helped to quit effectively, with consideration given to the tobacco industry's recruitment of 'replacement smokers' as smoking prevalence continues to fall overall. Each of these factors must be tackled together, as only a comprehensive programme of tobacco control that tackles the issue from every angle will be successful. There are currently no comprehensive cessation services for young people in Bolton; some school nurses are providing this service but not at all schools.

Recommendations for further needs assessment work

Assessment and regular monitoring/analysis of the Public Health Outcomes Framework indicators linked to smoking are necessary. These are: 2.3 Smoking status at time of delivery, 2.9 Smoking prevalence in 15 year olds, 2.14 Smoking prevalence in adults, and 4.7 Mortality from respiratory diseases.

Use social marketing techniques such as the ACORN geodemographic segmentation analysis, as recommended by the King's Fund research⁷, to cater Public Health information and interventions to the most resistant groups – young people, those in deprived areas, and heavy smokers aged 45-64 years.

Undertake local research to discover the need for a young people's cessation service and map the provision already available in schools and colleges.

Key contacts

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⁷ Boyce, T. et al (2008) *Commissioning and behaviour change: Kicking bad habits final report*, The Kings Fund.