

Chapter 7: Strengthen the Role & Impact of Ill Health Prevention

Adult Oral Health

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Introduction

Oral health problems are of great concern to public health due to their high prevalence and impact on individuals' and society wellbeing as well as the national economy as they are associated high cost of treatment.

The last adult oral health survey conducted in 2009 showed that 31% of adults in England had dental caries in their crowns or roots of teeth, with variations in decay experience between socio-economic groups.¹ Adults from professional occupational or managerial households had less decay experience than those from manual backgrounds.²

Risk factors such as poor diet, smoking and alcohol which affect general health will also affect oral health. The underlying causes of poor oral health are similar to those of general health including biological factors, health behaviours, social environment and economic context.

Inequalities persist in Ealing in terms of socio-economic status and deprivation, therefore resulting in health and oral health differentials in health status. The cultural differences also mean that Ealing has a diverse and interesting community but there are also other implications. Older people from some ethnic minority communities' experience a range of health problems associated with ageing earlier than their white counterparts.³ For example, compared with the general population, people of South Asian origin are more likely to have diabetes, heart disease, a stroke or early onset of dementia all of which may have implications for oral health.

Data on the oral health of adults in Ealing is not routinely collected. Regional estimates are available from the Adult Dental Health Survey (ADHS), which is conducted every 10 years.

Vulnerable Groups

Older people

With an ageing population, older people may suffer from systemic disease and polypharmacy, which may impact on their oral health. Furthermore, people are retaining their teeth longer, with increasing prevalence of root caries and

¹ White D. A., Tsakos G., Pitts N. B., Fuller E., Douglas G. V. A., Murray J. J. & Steele J. G. Adult Dental Health Survey 2009: common oral health conditions and their impact on the population. *British Dental Journal* 213, 567 - 572 (2012) doi:10.1038/sj.bdj.2012.1088

² The Information Centre for Health and Social Care. Adult Dental Health Survey 2009 – First Release 2010.

<http://www.hscic.gov.uk/catalogue/PUB01061/adul-dent-heal-surv-firs-rele-2009-rep.pdf>

³ All our futures: Ealing's Strategy for Older People 2004/2007

consequently may have more complex dental treatment needs. Older people may face barriers to accessing dental care including mobility difficulties, lack of transport, not knowing where to go for treatment, and cost of treatment.⁴

People with learning and physical disabilities

Lower levels of oral health have been demonstrated in people with learning disabilities, cerebral palsy, epilepsy, and multiple sclerosis.^{5 6} A wide range of both acute and chronic medical conditions can adversely affect oral health. These groups may also face difficulties in accessing services.

Pregnancy

Maintaining good oral health may have a positive effect on maternal health. The pregnancy period is characterised by physiological changes and pregnancy may affect oral health including modifying the pathogenesis of periodontal disease⁷⁸⁹¹⁰). Additionally, other risk factors such as smoking, alcohol intake, poor oral hygiene, low socio-economic factors, unemployment, and stress may also compromise oral and general health¹¹. There are health inequalities and inequity in access to health services in pregnancy where vulnerable women are less likely to access antenatal services and these may not only affect pregnancy, but also child outcomes. Pregnancy is an ideal opportunity for promoting oral health as women may be more amenable to adopt positive attitudes and health behaviours. This provides a favourable period to intervene early for the mutual benefit of mother and child¹². Furthermore, NHS dental treatment is free for pregnant and nursing mothers (up to one year post birth), thus signposting pregnant mothers to dental services may increase likelihood of uptake of dental services and opportunities for promoting oral health. Health and social care teams working in the primary care, hospitals, children's centres and community venues (midwives, health visitors, GPs, practice nurses, dental teams, and early years staff) have an important role to play in promoting good oral health

Oral health assessment should be part of general health assessment in pregnancy. At the earliest opportunity, health care providers should enquire about a woman's

⁴ Fiske J, Gelbier S, Watson RM. Barriers to dental care in an elderly population resident in an inner city area. *J Dent* 1990; 18:236-42.

⁵ Kerr M, Richards D, Glover G. Primary care for people with a learning disability — a group practice survey. *J Applied Research in Intellectual Disability* 1996; 9: 347–352

⁶ Fiske J, Boyle C. Epilepsy and oral care. *Dental Update* 2002; 29: 180–187

⁷ Moss, K. L., Beck, J. D. & Offenbacher, S. 2005. Clinical risk factors associated with incidence and progression of periodontal conditions in pregnant women. *J Clin Periodontol*, 32, 492-8.

⁸ Steinberg, B. J., Hilton, I. V., Iida, H. & Samelson, R. 2013. Oral health and dental care during pregnancy. *Dent Clin North Am*, 57, 195-210.

⁹ Silk, H., Douglass, A. B., Douglass, J. M. & Silk, L. 2008. Oral health during pregnancy. *Am Fam Physician*, 77, 1139-44.

¹⁰ Klepacz-Szewczyk, J. & Pawlicka, H. 2014. Most frequent oral pathological states problems occurring in pregnant patient. *Dent Med Probl*, 51, 387-396.

¹¹ Sheiham, A. & Nicolau, B. 2005. Evaluation of social and psychological factors in periodontal disease. *Periodontol* 2000, 39, 118-31.

¹² Yost, J. & Li, Y. 2008. Promoting oral health from birth through childhood: prevention of early childhood caries. *MCN Am J Matern Child Nurs*, 33, 17-23; quiz 24-25

oral health and provide them with advice, as well as signposting them to relevant dental services. Advice should include maintenance of oral health by:

- brushing twice a day with fluoride toothpaste
- limiting sugary foods and drinks
- smoking cessation and alcohol consumption advice for early intervention
- women who experience vomiting should be advised to rinse their mouth with water and seek professional advice
- arrange a check up with a local NHS dentist for continuing care

Oral cancer

Since 1989 there has been a steady increase in the rates of oral cancer in the UK.¹³ Consumption of tobacco (smoked and smokeless) is one of the most established risk factors for oral cancer (over 90% of patients with oral cancer use tobacco in some form). In the case of both smoking and chewing tobacco, the risk is dependent on dose and duration of use. Areca/betel nut, often used with smokeless tobacco, is also carcinogenic in its own right (cancer-causing). Although it is not known how the use of smokeless tobacco products are linked to the increase in oral cancer, it is known that South Asian women are 3.7 times more likely to have oral cancer and 2.1 times more likely to have pharyngeal cancer compared with other women (and they are also some of the principal users of smokeless tobacco). This has been found to be the case, even after controlling for the effect of socioeconomic deprivation.^{14 15} In Ealing, the age standardised rate for Oral cancer registrations (2009-11), Local Tobacco Control Profiles, February 2014 PHE, is 12.4 in comparison to ASRs of 12.8 and 13.2 in England and London respectively.¹⁶ This data is not available at the local level by ethnic group.

At least three-quarters of oral cancers could be prevented by the elimination of tobacco use and a reduction in alcohol consumption. The removal of these two risk factors also reduces the risk of second tumours in people with oral cancer. Smoking cessation is associated with a rapid reduction in the risk of oral cancers, with a 50% reduction in risk within 3 to 5 years.¹⁷

Studies have also suggested that the health risks of chewing tobacco may be compounded by the fact that some South Asian users of these products may be less likely to visit the dentist on a regular basis, and as such any risk to their health or developing disease may be less likely to be identified.^{18 19} Early detection of oral

¹³ Cancer Research UK (2010) Oral cancer – UK incidence statistics [online]. [Accessed 01/09/2014]

¹⁴ Moles DR, Fedele S, Speight PM et al. Oral and pharyngeal cancer in South Asians and non-South Asians in relation to socioeconomic deprivation in South East England. *British Journal of Cancer* 2008; 98: 633–35

¹⁵ National Institute for Health and Clinical Excellence, NICE Public Health Guidance 39: Smokeless Tobacco Cessation: South Asian Communities, September 2012

¹⁶ Public Health England. Local Tobacco Profiles. Accessed 01/09/2014.

<http://www.tobaccoprofiles.info/tobaccocontrol#gid/1000110/par/E12000007/ati/102/page/0>

¹⁷ Samet, J.M. (1992): The health benefits of smoking cessation. *Med Clin North Am.* 1992;76: p. 399-414.

¹⁸ Pearson N, Croucher R, Marcenes et al. Dental service use and the implications for oral cancer screening in a sample of Bangladeshi adult medical care users living in Tower Hamlets, UK. *British Dental Journal* 1999; 186: 517–21

cancer is an important factor in the likelihood of survival: whereas the 5-year survival rate of mouth cancer is as low as 50%, early diagnosis can increase this to 90%. Furthermore, since oral cancers can be hard to detect at their early stages, when treatment would be most beneficial, and due to the anatomical structures which may be affected they are complex to treat, and therefore prevention is key.

Use of chewing/smokeless tobacco and paan products is common amongst certain population groups, notably those of South Asian origin (people with ancestral links to Bangladesh, India, Nepal, Pakistan and Sri Lanka). Survey data suggests that amongst the South Asian population in the UK, the use of smokeless tobacco is more prevalent amongst those of a Bangladeshi origin, those from older age groups, first generation migrants and those from lower socioeconomic backgrounds.^{20 21 22} Chewing tobacco products are associated with a number of health problems including mouth and oropharyngeal cancer and other dental and oral disease, such as oral submucous fibrosis and periodontal (gum) disease and late diagnosis of dental problems (because the smokeless tobacco products can mask pain which would otherwise be felt).²³

Despite this, community research has indicated that there is a lack of awareness of the health risks of using chewing tobacco products, with some users believing the products in fact confer a health benefit such as acting as a digestive and breathe freshener, or to ease dental pain.²⁴

NICE provided recommendations for local bodies, including the NHS, Local Authorities and voluntary and community sector organisations around assessing the local use of smokeless tobacco products, commissioning of smokeless tobacco support services, training and opportunities for health professionals to brief provide advice and referrals to specialist stop smoking services.

The recommendations specified that any service developed to support individuals to stop using smokeless tobacco, whether it be brief interventions carried out by trained

¹⁹ National Institute for Health and Clinical Excellence, NICE Public Health Guidance 39: Smokeless Tobacco Cessation: South Asian Communities, September 2012

²⁰ Moles DR, Fedele S, Speight PM et al. (2008) Oral and pharyngeal cancer in South Asians and non-South Asians in relation to socioeconomic deprivation in South East England. *British Journal of Cancer* 2008; 98: 633–35

²¹ Prabhu NT, Warnakulasuriya K, Gelbier S et al. (2001) Betel quid chewing among Bangladeshi adolescents living in east London. *International Journal of Paediatric Dentistry* 2001; 11: 18–24

²² The NHS Information. Health survey for England 2004. Volume 1: The health of minority ethnic groups. Leeds: The NHS Information Centre 2006.

²³ Yamada T, Hara K, Kadowaki T. Chewing Betel Quid and the Risk of Metabolic Disease, Cardiovascular Disease, and All-Cause Mortality: A Meta-Analysis. *PLoS One* 2013;8:e70679

²⁴ West R, McNeill A, Raw M (2004) Smokeless tobacco cessation guidelines for health professionals in England. *British Dental Journal* 2004 ; 196: 611–8.

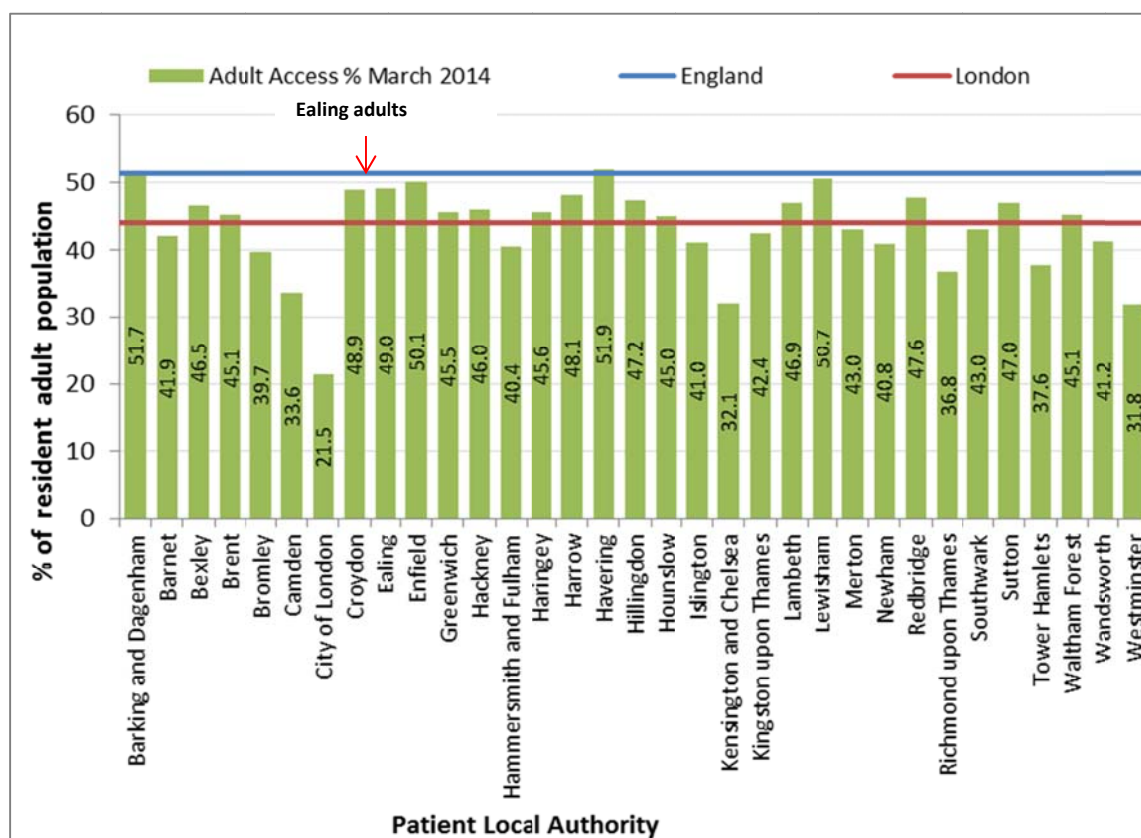
health professionals or specialist tobacco cessation services, is co-produced with the local community, accessible and culturally appropriate, and relates to the specific motivations users have.

Access to Dental Services

An important aspect of the effectiveness of dental commissioning is the ability of patients to obtain needed dental treatment when they request it. One measure used to assess this describes the number of patients seen as a proportion of the resident population; the “access rate”. Access rates can be affected and influenced by many features including the amount of dental provision in an area, the oral health needs of population, the deprivation or indeed prosperity of the resident population and so on. A low access rate therefore may not solely be due to a lack of provision; elements such as patient choice for example opting for private treatment can impact on the rate.

Access is a measure, which describes the number of patients seen in the previous 24 months. The measure provides a count of the number of distinct patient identities scheduled during a 24 month period. This metric is an indication of the number of unique patients that are considered NHS patients. It is used due to NICE guidelines which recommended that the longest interval between oral reviews (for an adult) should be 24 months. Therefore dental attendance is now measured by the number and proportion of patients who have attended a dentist within the previous 24 months. Access Rates are expressed as a percentage of the area population and are calculated using 24 months of scheduled data.

Figure 1: Adult Access 24 months ending March 2014 by Local Authority in London



Source: NHS Business service authority (BSA)

Almost half (49%) of Ealing adults (aged 19 years and above) have visited the dentist in the last 24 months as at 31st March 2014. Map1 shows adult access rates by ward level in London. Those wards shaded red have the lowest rates, those shaded blue the highest.

What works - Evidence-based actions

- Adopting a *life course approach* embedding prevention and early intervention is the most cost effective way of tackling oral diseases.
- Dental diseases are generally chronic diseases and therefore adopting a *common risk factor approach* to tackle risk factors (reducing sugars in the diet, smoking, alcohol) common to other chronic diseases is recommended.²⁵
- *Integration of oral health* into general health and encouraging multi-sectoral collaboration between health, education, social care and local businesses.
- *Building capacity* by training of the wider professionals (health visitors, teachers, nurses, and care home staff) on oral health.
- Increasing the *availability of fluoride*^{26 27}

²⁵ Sheiham A, Watt RG. The common risk factor approach: a rational basis for promoting oral health. Community Dent Oral Epidemiol. 2000; 28: 399-406

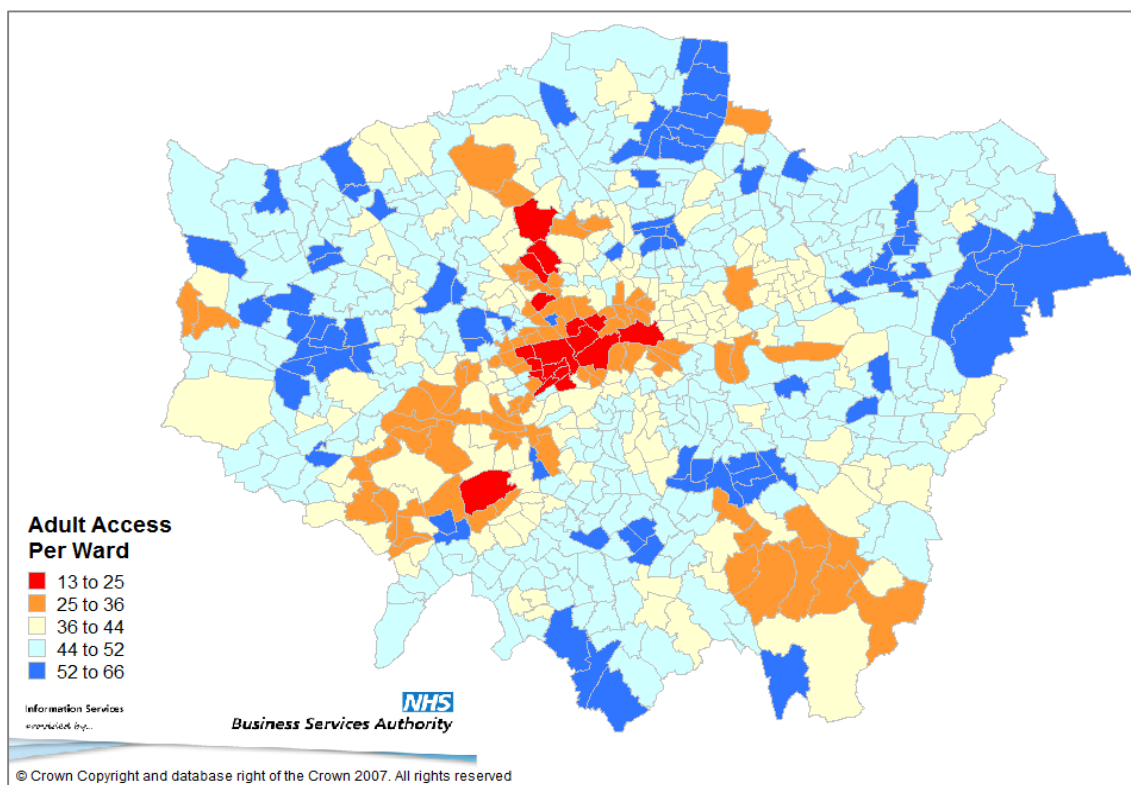
²⁶ Marinho VC, Higgins JP, Sheiham A, Logan S. Fluoride toothpastes for preventing dental caries in children and adolescents. Cochrane Database Syst Rev. 2003;(1):CD002278

²⁷ Marinho VCC, Worthington HV, Walsh T, Clarkson JE. Fluoride varnishes for preventing dental caries in children and adolescents. 2013

- Implementation of *healthy eating policies* in educational settings and care/nursing homes to encourage healthy eating and nutrition and reducing sugars consumption.²⁸
- Improving *access and quality of dental services*

²⁸ Moynihan P, Kelly S. Effect on Caries of Restricting Sugars Intake. Systematic Review to Inform WHO Guidelines. *Journal of Dental Research* 2014;93: 8-18

Map 1: Access Rate (%) Resident Adult Patients in London (24 Months to March 2014)²⁹



Source: NHS Business Services Authority

²⁹ Data is based on the local authority where a patient is resident, irrespective of where treatment took place. This is based on the home postcode recorded in the personal details section of each FP17 submitted, therefore is dependent on this information being included and accurate in the records. Each distinct unique patient identity is counted against the most recent claim recorded in the previous 24 months to the month stated. Patients have been identified by using surname, first initial, gender and date of birth. The count of patients includes activity from all types of contract and performer. Hence the figures include patients who have only received orthodontic treatment in the 24-month period, the patients who have been treated by Vocational Dental Practitioners (VDP) and it includes patients treated under any type of contract (GDS, PDS and salaried services). Adults are defined as patients over 18 on the last day of the 24 month period.

Population data used for local authority and ward areas is Mid-2012 Population Estimates: Single year of age and gender for local authorities in England and Wales (ONS). Population data at LSOA level differs from overall access above, due to the need to utilise LSOA population at a single age in order to calculate figures for children (0-17 year olds). LSOA population is taken from Mid-2011 Population Estimates for Lower Layer Super Output Areas in England and Wales by Single Year of Age and Sex (Rolled Forward from Mid-2010), ONS. Therefore amalgamated rates may differ. Three years trend data is included, using in the same population data to calculate access rates, therefore this will not necessarily reflect any changes in the population over time.

Recommendations for Adult Dental Services in Ealing

To address oral health inequalities with upstream and downstream actions which include:

1. Making Every Encounter Count in which health professionals attempt to deliver brief intervention including oral health at every opportunity and patient interaction.
2. Strategies to promote health and wellbeing and policies tackling obesity, cancer, cardiovascular disease and tobacco cessation and prevention of uptake should include oral health improvement.

Older people and vulnerable groups

3. Ensuring the commissioning of nursing and residential homes includes training of staff about looking after people's mouth and dentures
4. Ensuring that vulnerable groups have an oral health assessment as part of their general health assessment and mouth care is part of the individuals on-going care plan
5. Collaboration between health and social care to improve uptake of dental services among residents in nursing and care homes as well as vulnerable groups
6. Implementation of healthy eating policies in nursing homes, care homes and homes for vulnerable groups, especially reduction of sugary foods and drinks
7. Increasing the availability of fluoride, in particular fluoride toothpaste and higher fluoride toothpaste for those especially at risk of dental decay and root caries

Links to further information:

- i) *HealthProfile2013Ealing00AJ:*
<http://www.apho.org.uk/resource/item.aspx?RID=127128>
- ii) *Adult Dental Health Survey 2009:* www.hscic.gov.uk/pubs/dentalsurveyfullreport09.