Adult Oral Health

Joint Strategic Needs Assessment April 2012

Introduction

Oral health was defined by the Department of Health (DH) in 1994 as the ‘standard of health of the oral and related tissues which enables an individual to eat, speak and socialise without active disease, discomfort or embarrassment and which contributes to general well-being' (DH, 1994). Oral health is integral to general health and should not be considered in isolation.

Oral disease has detrimental effects on an individual’s physical and psychological well-being and reduces quality of life. A range of conditions are classified as oral diseases. The commonest disease is dental caries (or tooth decay). Other important conditions are periodontal (gum) disease and oral cancers.

Oral diseases are among the most common chronic diseases, making them important public health issues (Sheiham, 2005). Oral diseases have considerable effects on both the individual and society. Despite significant improvements during the past three decades, prevalence remains high in some groups and millions of pounds are spent annually on dental treatment in the UK.

A well-recognised association exists between socio-economic status and oral health, and trends suggest that disease is increasingly concentrated in the lower income groups. However, oral diseases are largely preventable. To address these inequalities and prevent future disease, public health resources should target the determinants of oral diseases. The ‘common risk factor’ approach focuses on generic prevention by reducing tobacco and alcohol use, improving diet and hygiene, and minimising stress and trauma. This approach aims to reduce oral diseases in parallel with other chronic diseases such as obesity, cancers, heart disease and diabetes

Dental health in England has greatly improved for both adults and children over the past 30 years, much of which may be attributed to the introduction of fluoride toothpaste in the 1970s, and through water fluoridation schemes across some parts of the country.

However, not all have benefited from these improvements and poor dental health is still closely linked to economic deprivation, social exclusion and cultural differences in both adults and children. In addition to pain or infection, poor oral health is associated with:

- Failure to thrive in infancy, and in adulthood.
- Periodontal disease is linked with heart disease.
- Poor oral health can lead to disruption in life with loss of time at work or education, loss of self-esteem and limited food choices.
- Pregnant women with poor oral health are also at higher risk of a premature birth.

The significance of oral health is increasing as people keep their teeth for longer and a desire to maintain function. Improvement of oral health is consequently a key local public health priority identified in current health and partnership objectives.

The provision of care is complicated by the provision of mixed NHS and private provision in many practices and 10 totally private dental practices in Nottingham City.

Key issues and gaps

Information on tooth decay in adults is sparse in comparison with that of children, and the NHS is reliant largely on the ten yearly national adult oral health surveys funded by the Department of Health. Locally, activity based information can give insight into the number of treatments undertaken but this will not give any indication as to the true amount of disease in the population.

A key issue is access to dentistry for all adults and especially vulnerable adults and those with active disease.

Adult Dental Survey

Evidence exists to suggest that those with the worse dental health are less likely to go to the dentist regularly. The last decennial adult dental health survey was conducted in 2009, although this only considers a sample size of around 5,000 people across the country. The report does however demonstrate;

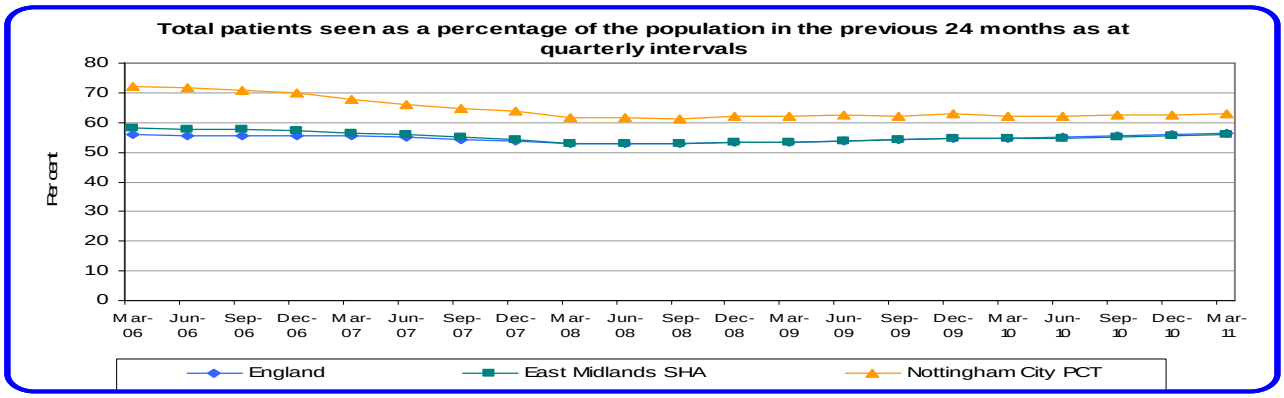
- Clear links between poor dental health and deprivation and it is assumed that this relationship continues to be the case currently in Nottingham.
- People in England are keeping their teeth longer with the level of people with no natural teeth falling from 28% in 1978 to 6% in 2009.
- There are significant gaps the dental needs of different socio-economic households with 35% of adults in routine and manual occupations having active decay as compared to 24% in managerial and professional occupations.

Nottingham Dental Survey

The latest GP patient survey dental results in Nottingham show that:

- Over 96% of adults trying to get an NHS dental appointment did manage to in the period July-September 2011.
- Of those who have not tried about 30% said it was because they did not have a need.
- National comparator data (see figure 1) indicates that our access (% of population seen by a dentist in last 24 months) is comparatively good compared with England. However, there is still room for improvement.
- It is concerning that almost 3,000 adults only receive treatment through urgent dental care dedicated services and 13,000 adults have urgent dental treatment each year.
- Local data, assessed monthly, suggests that around 70% of dentists have capacity to take on new services but people are not utilising services to the expected level (Nov 2011).
- There is an issue over the number of pregnant and nursing mothers attending a dentist especially in light of the risk between poor oral health in pregnancy and the risk of a premature birth.

Figure 1: Total number of patients seen in the previous 24 months by a dentist



The range and need for specialist dental services needs to be reviewed. Currently there are no sedation services for routine restorative dental work other than in the special dental care services with an estimated need of 5% of the population benefitting from this a some point in their lifetime, and it is considered that domiciliary services need to expand their provision.

Oral health promotion is available across Nottingham from City Smiles accredited dental practices and through dedicated programmes for pregnant women and in vulnerable adults care environments.

Recommendations for consideration by commissioners

- Act on findings from the dental access surveys, consultations and activity figures to increase provision in areas of need
- Commissioning of specialist dental services according to local need e.g. sedation and domiciliary services
- Improving uptake of services by local residents, the access target is 64% of the total population by 2013
- Improving access to specialist services
- Reviewing the minor oral surgery service
- Support the Department of Health pilot sites and evaluate the pilot of the mobile dental service
- Robust, annual monitoring and evaluation of dental practices
- Increase and mainstream dental health promotion activity for adults targeting higher risk groups for example pregnant women

1) Who's at risk and why?

Adults are at risk of poor oral health. The main risk factors for poor oral health are:

- A diet high in sugar
- Poor oral hygiene
- Smoking
- Alcohol consumption
- Trauma

These factors are associated with deprivation, and are also described elsewhere in the JSNA. Links to these are given here: diet and nutrition, smoking and alcohol.

Adults in deprived areas are more likely to have poorer oral health with more decay or periodontal disease and when treated are more likely to have teeth extracted.

Brushing teeth with a fluoride toothpaste and the use of fluoride varnish for adults giving concern. Fluoride in drinking water, whether naturally occurring or artificially added, is protective against dental decay especially in children and this carries forward into adulthood. Nottingham City has low levels of fluoride in its water at 0.25 μg/l, which is a quarter of the target level when fluoride is adjusted to drinking water (Drinking Water Inspectorate). Areas with naturally low fluoride levels including Nottingham city are therefore at increased risk of poor oral health.

Poor oral hygiene is a major risk factor for periodontal disease, which in turn leads to bad breath (halitosis) and eventually tooth loss. Figure 2 shows the reduction in the proportion of sound teeth, and the reduction in the number of remaining teeth over an adult's lifetime. Figure 3 shows a summary of periodontal health by age, and you can see that risk of pocketing >4mm increases with age. In summary, age is therefore also a risk factor for declining oral health. (Source: Adult Dental Health Survey, 2009, Department of Health) Older people are more vulnerable to poor oral health due to the aging process and also are now retaining more natural teeth. Care may be more complicated as it could involve domiciliary care or more complex restorative care.

Figure 2: Summary of Tooth condition by age (2009)

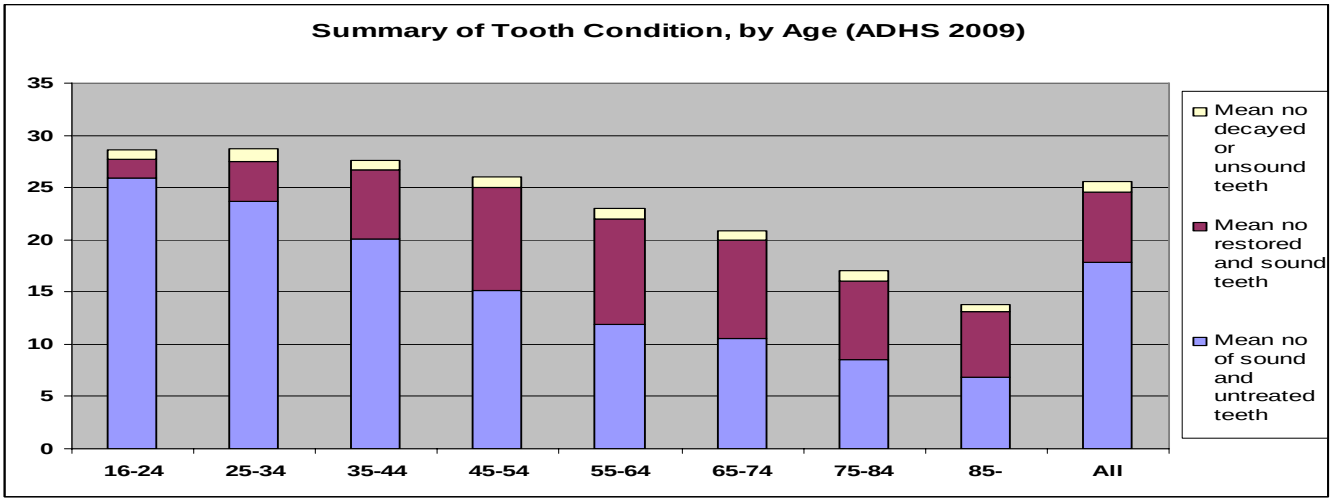
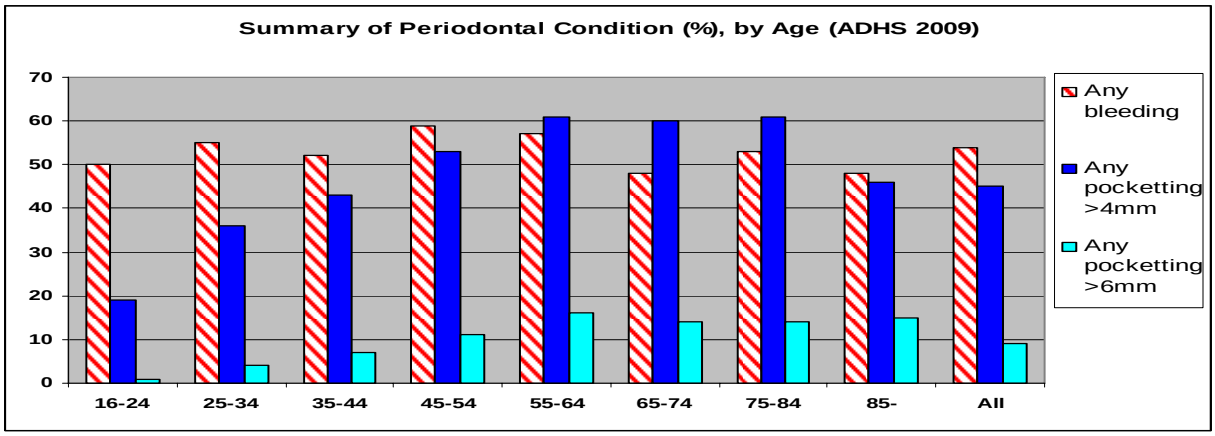


Figure 3. Summary of periodontal condition by age (2009)



Smoking and alcohol are major causative factors in the development of mouth cancers. Tooth and jaw fracture from trauma is a higher risk in contact sports or violence associated with alcohol misuse (usually associated with falls or glass bottles and drinking vessels) (Cancer Research UK, accessed 22/03/2012).
Pregnant women have an increased risk of stillbirths if their oral health is poor.
People in the BME communities are more likely to report that they had no need to visit the dentist and that there is limited access locally.

Access to dentists is low in people with severe mental health problems, profound and multiple learning and physical disability

2) The level of need in the population

Tooth Decay
Information on tooth decay in adults is sparse in comparison with that of children, and the NHS is reliant largely on the ten yearly national adult oral health surveys funded by the Department of Health. The latest figures on which to base need are from the 2009 Adult Dental Health Survey.

National Adult Dental Survey
The 2009 survey demonstrated that adult dental health of adults in England had improved in the 10 years since the previous survey. In 2009;

- 6% of all adults had no teeth at all compared to 13% in 1998 and 28% in 1978.
- Differences in dental health were evident between social groups with manual groups having more dental disease than professional groups.
- Managerial professionals had only 2% of teeth missing (edentate) as opposed to 10% of those in routine and manual profession.
- Routine and manual professions were more anxious going for treatment, more anxious in the waiting room than managerial professions.
- 94 per cent of the combined populations of England, Wales and Northern Ireland were dentate, that is had at least one natural tooth.
- The proportion of adults in England who were edentate (no natural teeth) has fallen by 22 percentage points from 28 per cent in 1978 to 6 per cent in 2009.

The picture in Nottingham
The revised NHS dental contract (2006) was meant to bring in measures to increase preventative work

and to reduce the number of unnecessary procedures carried out by simplifying the payment system and introducing activity allocations. The general feeling is that the contract is not working well and currently pilot sites, including 2 in Nottingham City, are working on different ways to deliver NHS primary care dental services. Following the evaluation of the pilot sites, a new NHS dental contract may be negotiated from 2015.

There are still challenges with dental attendance in some specific groups for example in 2010 only 2954 pregnant/nursing mothers attended a NHS dentist as opposed to 4,477 lives births.

Work has been undertaken using focus groups and a social marketing approach to explore the reasons for dental attendance and lack of attendance. Specific work concentrated on deprived communities and the Pakistani community, especially families with children under 5 years of age. Generally the main reasons stated for non attendance are:

- "No need" i.e. no pain or perceived problems
- "Fear" usually related to either previous bad experience or a dislike of going

Lesser reasons identified were:

- "Cost", "Lack of available dentist"
- "Accessibility/Convenience" i.e. location of practices or times of opening.
- In Pakistani communities there was a lack of understanding of the impact of oral health on general health and concern that there would be a lack of understanding of cultural issues e.g. women dentists.

Nottingham Prison, a Category B local prison, has a varying population with a capacity of approx 1017 occupants. A service incorporating treatment of mainly urgent conditions, in remand prisoners, and preventive and full treatment in longer term prisoners is provided

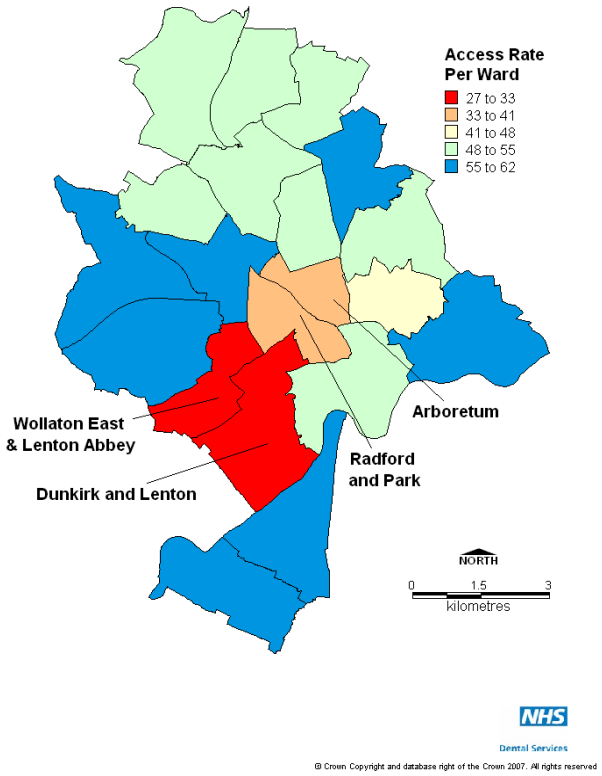
3) Current services and assets in relation to need

Nottingham practices appear to have good capacity to take on new patients and there has been a recent rise in the numbers attending dental practices in the City. In 2010, 2 new practices were commissioned and began accepting patients. In January 2012 a pilot of a mobile dental service, incorporating oral health promotion, assessment and treatment sessions, commenced in the St Ann's area.

Nottingham City PCT allocates sufficient resources to dental provision with £16.9 million allocated by primary care dentistry in 2007/08 to provide services in the City.
Other local data on Nottingham includes:

- Around 70% of NHS dentists in Nottingham appear to have available capacity to take on new NHS patients (information derived through regular contact with dental practices), although access figures suggest that people are utilising services.
- There are some geographical gaps in provision which are being addressed through the financial uplift in the form of new practices and expansion of some existing contracts in areas where access is lowest (please see Map 1).
- According to data from the NHS Information Centre, the number of adults seen by a Nottingham NHS dentist in the previous 24 months has shown year on year reductions from 2006 to 2008 but the number has risen slightly in 2010-11, although the published data does not distinguish between Nottingham City residents using services, and those who live outside the area but use the Nottingham provision. Local data suggests that around 35 % (down from 40% in 2009) of the total annual activity is from non-residents.

Figure 4: Percentage of population aged 20+ accessing a dentist in previous 24 months by ward (Dec 2011)



***[Access Rates:** by ward (expressed as a % of the ward population) were calculated using 24 months of scheduled data. Unique patient identifiers were used to identify single patients, whose address information was then used.]*

Figure 5: All Dental Practices in Nottingham City in relation to IMD Score

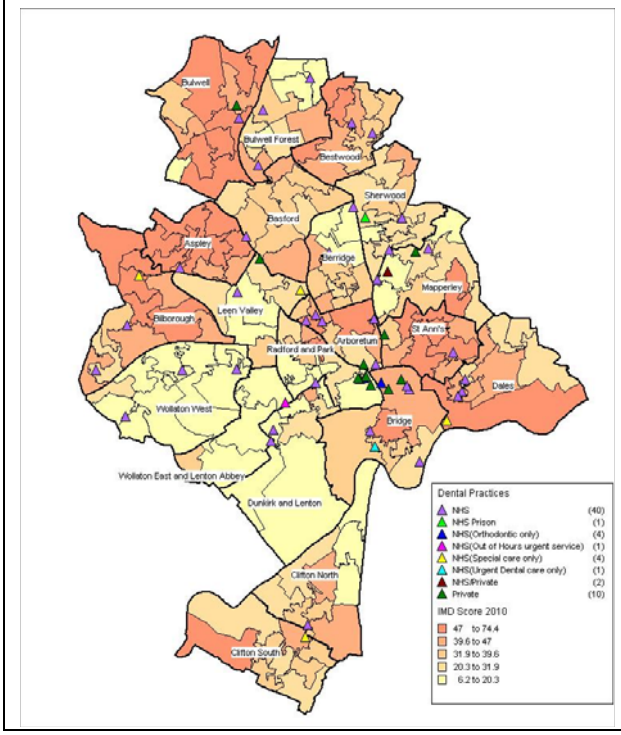


Figure 5 highlights that in areas of deprivation there are less dentists, this is particularly evident in Radford, Dunkirk, and Lenton wards.

Assets
The Oral Health Promotion network is a city and countywide group run by the Oral Health Promotion Team. The aim of this group is to share good practice and promote a community development approach by the dentists/

4) Projected service use and outcomes in 3-5 years and 5-10 years

Although dental health of adults is improving, there are social and geographical inequalities in oral health. Due to falling disease patterns and growing reluctance to have extractions and dentures, people are keeping their teeth longer, which means that there are more teeth at risk of decay and large numbers of heavily restored teeth, which need expensive long-term maintenance by dental services (Primary Care Commissioning, accessed 22/03/2012).
http://www.bsdh.org.uk/misc/Commissioning_Tool_for_Special_Care_Dentistry_FINAL_MARCH_2007.pdf

The life expectancy of people with disabilities is also increasing with a projected increase of 32% of those with a profound learning disability (Emerson, 2009).

With low levels of access to dental services, many will present only when in pain and may ultimately need a greater level of restorative work.

5) Evidence of what works

An integrated common risk approach should be the basis for joint working with oral health professionals collaborating across agencies and sectors to secure improved health outcomes.
The DH have published an evidence base of interventions to improve dental health and limit the need for treatment interventions. (DH - Delivering Better Oral Health)
Summary Guidance for Primary Health Dental Teams

Prevention of caries in adults

	Advice to be given	Professional intervention
All adult patients	• Brush twice daily with fluoridated toothpaste • Use fluoridated toothpaste with at least 1,350 ppm fluoride • Brush last thing at night and on one other occasion • Spit out after brushing and do not rinse • The frequency and amount of sugary food and drinks should be reduced and, when consumed, limited to mealtimes. • Sugars should not be consumed more than four times per day	
Those giving concern to their dentist (e.g. with obvious current active caries, dry mouth, other	All the above, plus: • Use a fluoride mouthrinse daily (0.05% NaF) at a different time	• Apply fluoride varnish to teeth twice yearly (2.2% F–)

predisposing factors, those with special needs)	to brushing • Consider recommending an oscillating/rotating power toothbrush	• For those with obvious active coronal or root caries prescribe daily fluoride rinse • For those with obvious active coronal or root caries prescribe 2,800 or 5,000 ppm fluoride toothpaste • Investigate diet and assist adoption of good dietary practice

Prevention of periodontal disease – to be used in addition to caries prevention

	Advice to be given	Professional intervention
	• Brush teeth systematically twice daily with either: – a manual brush with a small head and round end fi laments, a compact, angled arrangement of long and short fi laments and a comfortable handle OR – a powered toothbrush with an oscillating/rotating head • Do not smoke • Consider using toothpastes containing: – triclosan with copolymer, or – triclosan with zinc citrate to improve levels of plaque control • Toothpastes with stannous fluoride may reduce gingivitis • Clean interdentally using interdental brushes or floss • Maintain good dietary practices in line with The Balance of Good Health	Demonstrate methods of improving plaque control • Investigate possible improved control of predisposing systemic conditions • Take a history of tobacco use, give brief advice to users and signpost to local Stop Smoking Service • Investigate diet and assist adoption of good dietary practice based on The Balance of Good Health

Prevention of oral cancer

	Advice to be given	Professional intervention
	• Do not smoke • Do not use smokeless tobacco (e.g. paan, chewing tobacco, gutkha) • Reduce alcohol consumption to moderate (recommended) levels • Maintain good dietary practices in line with The Balance of Good Health • Increase fruit and vegetable intake to at least five portions per day	• Take a history of tobacco use, give brief advice to users and signpost to local Stop Smoking Service • Signpost to local alcohol misuse support services

Evidence based guidelines are produced by NICE (National Institute of Clinical Excellence) on wisdom tooth removal, dental recalls and antibiotic prophylaxis; also the Royal Colleges produce good practice guides.

The requirements for the care of vulnerable adults is outlined in the Dept of Health document *Valuing People's Oral Health* (Valuing Peoples Oral Health: A good practice guide for improving the oral health of disabled children and adults : Department of Health - Publications
A strategy for special care dentistry was developed in 2010 that included a clear care pathway for services across prevention, primary care and secondary care.

DENTISTRY – Incorporating Special Care Dentistry needs, including Learning Disability issues				
Tier 0	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**
General Prevention	**General Healthcare Professional assessment and advice. Development of specific Health Action Plans Input from Primary Healthcare Facilitators with managed access into Primary Care**	**Prevention Advice Recognition of service need Generalist treatment for less severe Behaviour management Refer**	**Primary/community based specialist care More advanced behaviour management, including sedation – IV/Inhalation Hospital outpatient**	**Specialist unit Hospital outpatient/Inpatient Very advanced behaviour management General Anaesthesia Medical management Mental Health/Psychological management**
• Ensure oral health promotion / communication is available in accessible format.	• Access to Primary Care Dental lists. • Awareness training available. • Dental needs identified in Health Action Plan. • Use of Dental element of "Basic personal Care MOT" followed (produced by Notts Healthcare)	• Individually targeted advice in format accessible to individual & carer. • Accessible explanation of treatment proposed and reason. • Basic Anxiety reduction strategies. • Clear criteria for referral to Tier 3 (see Referral Guidelines for specialist dental care)	• Timely Access to Primary/community based specialist care. • Accessible explanation of treatment proposed and reason. • Access to Psychological anxiety-reduction techniques. • Appropriate sedation • Link to Acute Liaison Nurse where General Hospital O/P involved.	• Link to Acute Liaison Nurse. • Accessible explanation of treatment proposed and reason. • Access to Clinical Psychology. • Clear discharge / de-escalation pathway.
Health care professionals Social care professionals	General Primary care services	General Dental Services Learning Disability services Mental health services	"Salaried dental services" Hospital outpatient	Hospital based services Psychology services

6) User Views

Various activities have been undertaken to gather local user views on dental health and the services. A dental access survey in early 2009 indicated that almost 70% of respondents said that they did not have a need to go. Other key factors were the cost of treatment, fear and lack of time or the convenience. In 2010 social marketing activities worked with families in deprived communities and the Pakistani communities primarily with young children. The City Smiles initiative monitors views from pregnant women and vulnerable adults in youth services and care homes. The survey of patient satisfaction by the NHS Business Services Authority indicates that 94.5% of patients were satisfied with the dentistry they received and 90.2% were satisfied with the wait for an appointment

7) Equality Impact Assessments

In May 2009, NHS Nottingham City undertook an Oral Health Needs Assessment in order to enable it to identify and assess dental health need, commission appropriate dental services and improve the dental health of the population.

The report highlighting the findings, included the following recommendations:

a) Expand / introduce additional service capacity in areas of high need e.g. Bulwell and west areas of the city

b) Consider innovative ways to encourage access to dentistry .e.g. mobile dentist surgeries

8) Unmet needs and service gaps

There is a steady presentation of people at dental practices seeking dental care but who feel that they are unable to complete the care without some form of sedation. In a lot of cases careful behaviour management techniques should overcome the anxiety but for a few either initial or course long sedation is required as an adjunct to the treatment. Recently an article published in the British Dental Journal estimated that 5% of patients will at some time need sedation services. (*BDJ 2011;211:E11 Estimating the need for dental sedation. 2. Using IOSN as a health needs assessment tool. I.A. Pretty, et al.)* In Nottingham City these estimates would suggest a potential of 7,100 patients. [*Note these are lifetime figures not annual activity figures*.]

9) Recommendations for consideration by commissioners

- Consider working with specific target groups for example BME groups.
- Act on findings from the dental access surveys, consultations and activity figures to increase provision in areas of need
- Commissioning of specialist dental services according to local need e.g. sedation and domiciliary services
- Improving uptake of services by local residents, the access target is 64% of the total population by 2013
- Improving access to specialist services
- Reviewing the minor oral surgery service
- Support the Department of Health pilot sites and evaluate the pilot of the mobile dental service

- Robust, annual monitoring and evaluation of dental practices
- Increase and mainstream dental health promotion activity for adults targeting higher risk groups for example pregnant women

10) Recommendations for needs assessment work

- How can a complete picture of the oral health of adults within Nottingham City be gleaned?
- How can Nottingham Identify the need for, and current uptake of local specialist service provision?
- How can access survey data be used to understand the barriers and the enablers to accessing services using market segmentation tools and patient satisfaction questionnaires?
- How useful will it be to undertake an Equality Impact Assessment for Nottingham residents?
- How will continuing the work on the feasibility of water fluoridation, within national guidelines, be of benefit for the adult population in Nottingham City?

Key contacts

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