

7. ADULTS

7.6 Oral Health of Adults

The three major oral conditions affecting adults are tooth decay, gum (periodontal) disease and oral cancer.

7.6.1 The impact of oral health in adults

The impacts of oral diseases in adults can be considerable. Pain, discomfort, sleepless nights and time off work are all common impacts of oral diseases. Poor oral health can have a negative impact on a person's ability to socialise and can reduce their self-esteem. In older adults, oral diseases can lead to dehydration and malnutrition, and psychological impacts can increase the problems of loneliness and isolation. Poor oral health, therefore, can impact on a person's ability to live independently and their quality of life.

The number and position of a person's natural teeth affects their ability to chew.ⁱ Difficulty with chewing affects the nutrient intakes of older people. There is evidence that people who cannot chew or bite comfortably are less likely to consume high fibre foods such as bread, fruit and vegetables, thereby risking reducing their intake of essential nutrients such as fibre, iron and vitamin C.ⁱⁱ In older adults, this can lead to dehydration and malnutrition.^{i, iii, iv} Age UK report that it is estimated that 1.3 million people over 65 suffer from malnutrition, the vast majority of whom (93%) live in the community.^v

Poor oral health can have a negative impact on a person's ability to socialise and can reduce a person's self-esteem.^{vi} This can increase the problems of loneliness and isolation. Poor oral health therefore can impact on a person's quality of life and their ability to live independently. A survey carried out with residents of care homes found that 40% of the residents reported that poor oral health affected their daily life.^{vii}

In a national survey (Adult Dental Health Survey, 2009) the most commonly reported impacts of oral health problems were related to eating, smiling and cleaning. In South Central England, 31% of respondents (that had teeth) reported at least one impact. In the main, adults attributed these impacts to toothache, sensitive teeth or tooth decay and to problems with their gums. For problems with smiling however, the main conditions identified were appearance of teeth, bad position of teeth and missing teeth.

Certain groups of adults are at greater risk of oral diseases. This is illustrated in figure 1.

Figure 1 Groups of adults at higher risk of oral diseases



In addition some long-standing illnesses can have a detrimental effect on oral health. Examples of conditions which can affect oral health are shown in figure 2.

Figure 2 Medical conditions which can have a detrimental effect on oral health

Diabetes

- People with diabetes are more prone to gum disease because of their increased susceptibility to infection

Stroke, dementia

- People who have impaired manual dexterity are less able to keep their mouths clean

Conditions requiring medication

- Medicines containing sugar can increase the risk of tooth decay when used long-term
- Side-effects from medication such as dry mouth can increase the risk of tooth decay

Blood disorders

- Some blood disorders can increase the risk of infection. This means that conditions such as periodontal disease, yeast infections and ulcers can be more severe and worsen quickly

7.6.2 Information on the oral health of adults in Buckinghamshire

Local data on oral health in adults are not routinely collected and we do not have data for adults in Buckinghamshire. Therefore local needs must be estimated using South Central England estimates from the decennial national surveys: the Adult

Dental Health Survey (ADHS). These surveys collect clinical data and the views of patients on their oral health. The most local data we have are for South Central Strategic Health Authority (as was) from the ADHS carried out in 2009. These data will not fully reflect local variations. In 2009 South Central SHA area comprised Thames Valley, Hampshire and the Isle of Wight. While the decennial survey can be used to determine some high level estimates, they are likely to underestimate disease levels because of their survey methods.

7.6.2.1 Trends in oral health

During the post-war years, the nation's oral health was poor, dental disease was rife and there was little expectation that teeth would last a lifetime. This expectation has now changed, with the majority of adults having teeth for life. We have seen dramatic improvements in the last 50 years with the percentage of adults in England with no teeth falling from 37% in 1968 to 6% in 2009.^{viii} In South Central England, only 2% of adults had no teeth in 2009.^{ix}**Error! Bookmark not defined.**

Reasons for improvement in oral health in adults are thought to be:

- Changes in behaviour and what is considered socially acceptable, including body hygiene, smoking rates, use of fluoride toothpaste, increasing public engagement in oral health and rising expectations. Oral hygiene behaviours have substantially improved: 75% reported brushing twice daily in the most recent adult survey and levels of plaque and calculus have steadily improved over the last 40 years.^{viii}
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- Changes in diagnosis and treatment of oral diseases mean that dentists are more likely to restore teeth than in the past where extraction of all teeth was commonplace.

While oral health has improved generally, it is not all good news. Population averages for adults hide oral health inequalities and data show that adults from the most deprived areas, in most age groups, are more likely to have:

- Decayed teeth
- No teeth
- Gum disease
- Oral cancer
- Suffer from urgent conditions^{ix}

It is well established that absolute deprivation has a significant impact on health status but the social gradient illustrates the importance of relative deprivation.^x This is significant for Thames Valley where there are pockets of deprivation in a broadly affluent area.

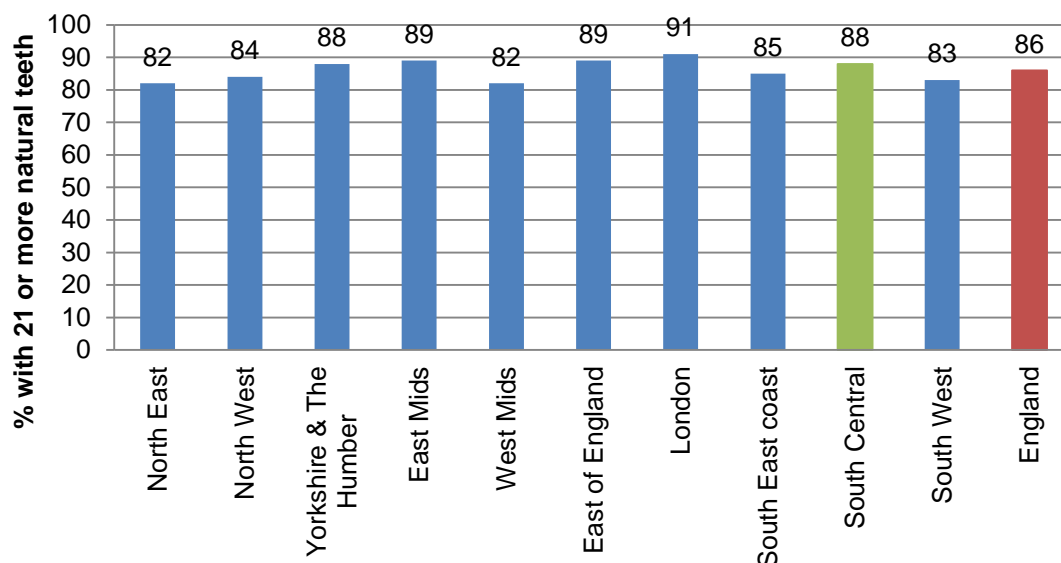
As the population ages and people are increasingly retaining their teeth into later life, the restorative problems experienced by adults have become more complex. In addition, the prevalence of periodontal disease and root caries increases with age, as does the medical complexity of patients. The most recent ADHS found that almost 1/5 adults were found to have complex oral health needs with multiple management issues, particularly in those over 45 years old.^{ix}

7.6.2.2 Number of teeth

Oral health is not be achieved simply by having some natural teeth; a minimum number of 21 natural teeth are considered necessary to give adults a ‘functional’ dentition, that is, one that gives them the ability to eat a range of food.

According to the 2009 ADHS the majority of adults in South Central England (88%) met the standard of 21 teeth, just exceeding the England average (86%) (Figure 3). Yet more than one in ten adults in South Central England (12%) do not have a functional dentition and this can have significant impacts on an individual’s health and wellbeing.^{viii}

Figure 31 Proportion of dentate adults with 21 or more natural teeth by English Strategic Health Authority, 2009.



Source: Adult Dental Health Survey, 2009

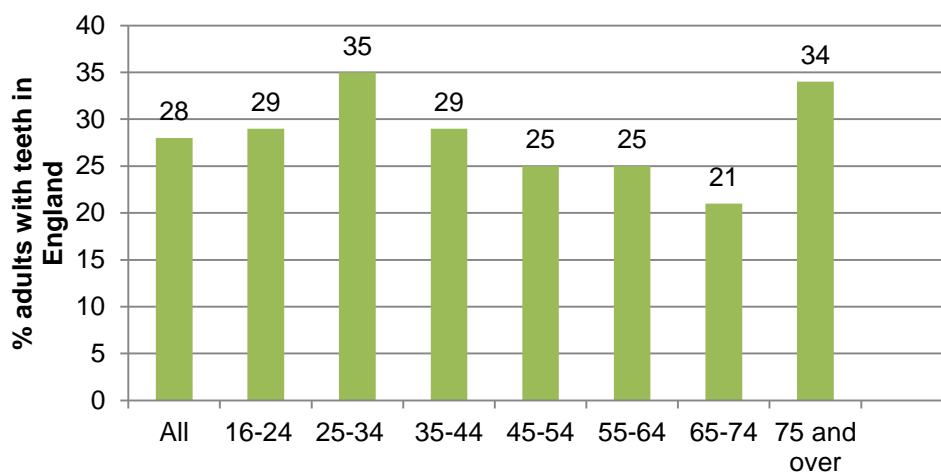
7.6.2.3 Tooth decay in adults

The proportion of adults experiencing tooth decay (prevalence) in England has fallen from 46% in 1998 to 30% in 2009. In South Central England 29% of adults have at least one decayed tooth (Figure 3).^{ix} It is important to note however, that prevalence of tooth decay is likely to be underestimated due to limitations of survey methods,

e.g. no x-rays are used during the survey which means only visible decay is recorded.

Traditionally, it has been assumed that more tooth decay occurs in children than in adults when the opposite is true. Evidence suggests that incidence rates in adults are at least as great as that of children and adolescents.^{xi} Tooth decay is a disease that can progress in adulthood despite the recent decline in dental caries in children. This means that the majority of tooth decay occurs in adults, not in children. There is evidence to suggest considerable development of tooth decay between 12 and 35–44 years of age and suggests that caries is occurring later than in previous decades.^{xi,xii} The 2009 ADHS showed that the highest proportion of adults with decay in the 25-34 age band with (a minimum of) 35% experiencing tooth decay. This is likely to be related to the relatively low uptake of dental services in this group which means that they are more likely to have untreated decay. A substantial proportion of the 75 years and over age band also have tooth decay.

Figure 4 Proportion of adults in England with tooth decay (%) by age band, 2009

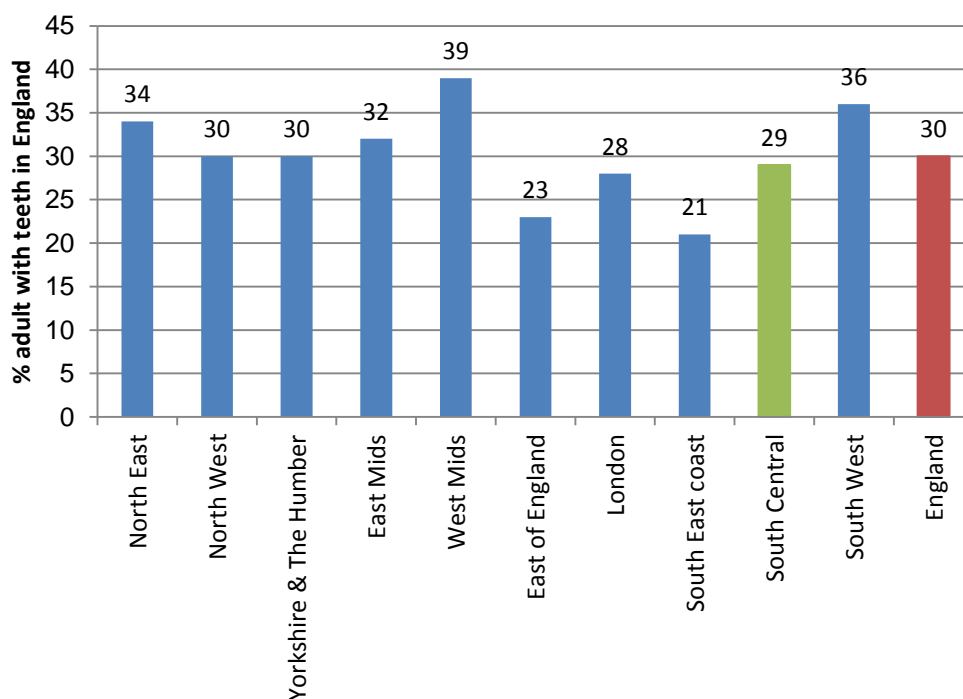


Source: Adult Dental Health Survey 2009

Studies carried out in other parts of the UK have found that older adults living in care homes are more likely to experience tooth decay than the general older adult population. A survey of care homes in Islington, for example, found that 63% of the population had tooth decay.^{vii}

As well as variation in experience of tooth decay between age bands, there is geographical variation: this ranges from an average of 39% in West Midlands to 21% on the South East Coast. South Central England lies between these two extremes at 29% and is close to the England average of 30% (Figure 5).

Figure 5 Proportion of adults with any decayed teeth (%) by Strategic Health Authority, 2009. Source: Adult Dental Health Survey, 2009



While the prevalence of decay has fallen over time the number of teeth affected in those with decay (severity) has remained unchanged. In England adults with obvious decay had an average of 2.7 teeth affected.^{xiii} In South Central England an average of 2.3 teeth were affected in each person with decay.^{ix}

7.6.2.4 Urgent conditions

Closely related to the severity of tooth decay is the experience of urgent problems in the mouth. Over a quarter of adults (27%) experienced dental pain the last 12 months in South Central England. Of these, 7% experienced pain fairly or very often over this period.^{ix} Urgent conditions are more likely to be experienced by people from lower socio-economic groups and they are more likely to experience more than one urgent condition.

7.6.2.5 Gum disease

Gum disease covers a range of conditions, from swollen and bleeding gums to extensive loss of the bone supporting the teeth. At the milder end of the spectrum (namely tartar (dental calculus) accumulation, shallow pockets and bleeding gums) gum disease is not a public health problem. At the more severe end however, it is an issue as sufferers are at risk of tooth loss. Approximately 9% of the population in England suffer from severe disease.^{xiv} Experience of gum disease varies with age, geography and socio-economic status. People from lower socio-economic groups are more likely to experience gum disease at all levels of severity.

The prevalence of gum disease increases with age as would be expected: 19% of 16-24 year olds have signs of the disease compared to 46% of people aged 85 years and over. Severe disease is also more likely to be experienced in older age groups.

7.6.2.6 Oral cancer

The term 'oral cancer' is used to encompass a number of different types of cancer of the mouth, e.g. cancers of the lip and cancers of the tongue.

Oral cancer makes up 2% of all cancer cases and 1% of all cancer deaths in the UK.^{xv} Oral cancer incidence is low, with less than 4,000 people in England having oral cancer per year however; this is not a declining public health problem.^{xv} No other cancer site has shown such a rapid rise in incidence in the past quarter of a century.^{xvi} At the same time there is a greater proportion of deaths from oral cancer as mortality rates have increased by around 10% in the last decade.^{xv} Around 2,100 people died of oral cancer in 2012 in the UK, equivalent to around six people every day.^{xv}

Oral cancer remains more common in old age with the peak of incidence occurring in males aged 60 to 64.^{xvii} Oral cancer incidence rates have increased overall for most age groups in Great Britain since the mid-1970s. In males, the largest increases have been in those aged 50-59. In females, the largest increases have also been in those aged 50-59: rates in this group more than doubled (131% increase) between 1975-1977 and 2009-2011.^{xvii}

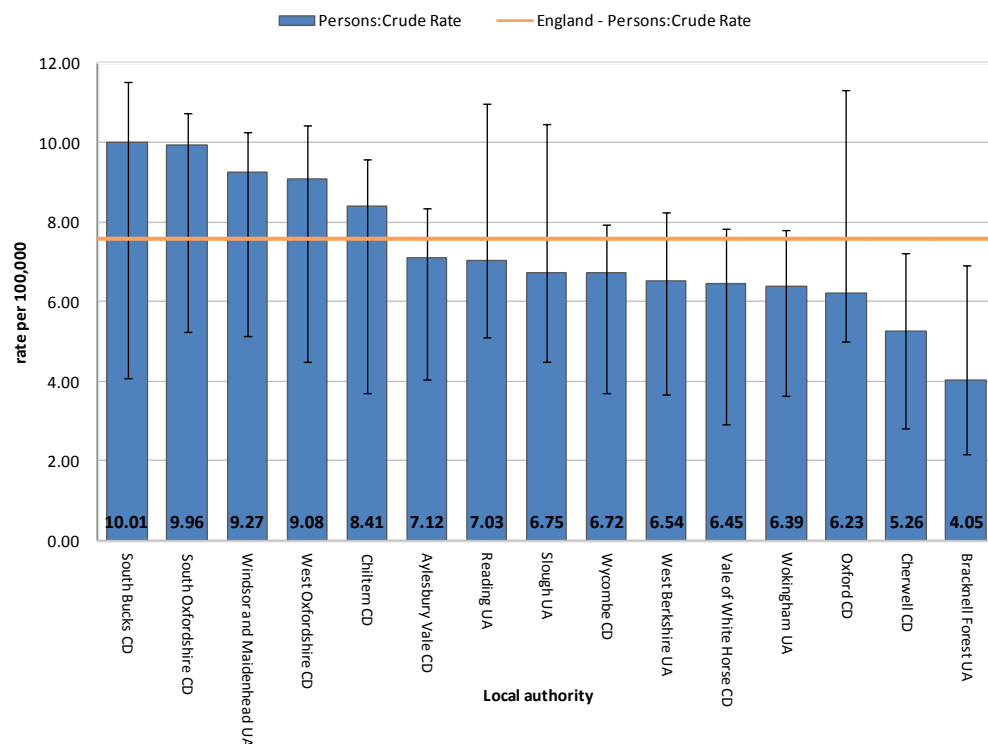
Most people die in first 2-3 years with around a 50% five year survival after diagnosis.^{xv} Survival has not improved over time because diagnosis is usually late. Many people ignore symptoms and public awareness of oral cancer is very low. Those who survive usually suffer from cosmetic deformity, functional impairment and psychological disturbance.

Between 2008-10 there were 426 cases of oral cancer across the Thames Valley. Between 2007 and 2011, there were 1,021 deaths from oral cancer in England, 617 males and 404 females. Experience of oral cancer varies by age, gender, geography and socio-economic deprivation.

Oral cancers are more common in men than women (although the differences between men and women are reducing as their lifestyles become more similar). The gender inequality has been well documented and is likely to be associated with a higher prevalence of tobacco chewing (particularly among BME groups), excessive alcohol intake and higher smoking prevalence among men.^{xviii}

There is some geographical variation in oral cancer incidence across the Thames Valley, ranging from 10 cases per 100,000 in South Buckinghamshire to 4.1 cases per 100,000 in Bracknell Forest between 2008-10 (Figure 6).

Figure 6 Oral cancer Incidence (persons crude rate) 2008-2010.
Source: UKCIS, 2009



There are no statistically significant differences however in either oral cancer incidence or mortality between local authority areas.

The incidence of oral cancer increases with age from 30 years (there are no local data by age or deprivation because of small numbers). Almost three-quarters (74%) of oral cancer deaths in the UK in 2012 were in people aged 60 and older.^{xv} In younger adults, the numbers are smaller but the incidence of oral cancer in the under 45s is also rising. This is a new and concerning trend and is thought to be because people are starting to smoke and drink alcohol early in life.

Oral cancer is strongly related to socio-economic deprivation and those living in deprived areas, with the highest rates occurring in the most disadvantaged groups.^{xix,xx}

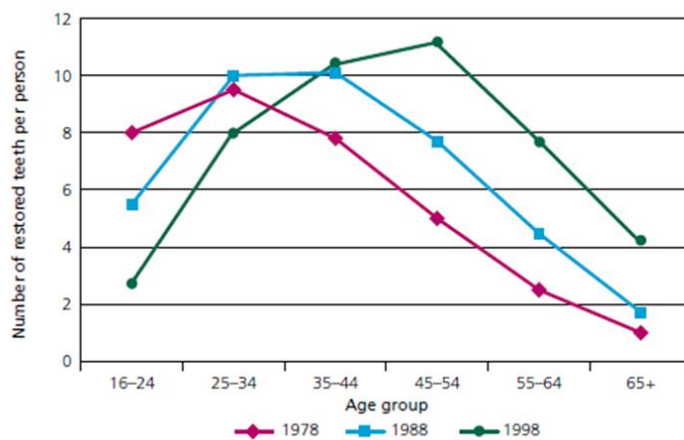
7.6.2.7 Dental treatment

The population, who are now moving into older age, had a considerable amount of dental treatment carried out when they were younger. The ADHS carried out in 1978 found that 16–34 year olds had high levels of decay and many fillings, mostly of dental amalgam. This population cohort is now middle-aged and this “wave” of

restorative work can be traced as the cohort ages (Figure 7).^{xxi} In 2009, the Steele review described three distinct population groups with differing needs:

- Older age groups (those past the age of retirement) dominated by those with no teeth at all and a need for complete dentures
- A young generation with low levels of decay and low restorative needs
- A group aged between 30 and 65 who had experienced high levels of disease which had been treated by fillings and other restorations (the “heavy metal generation”) and who will have high maintenance needs as they age.

Figure 7 The “heavy metal wave”



Source: Steele Review, 2009

The prediction made in the Steele review that older age groups will require more complex care as they age, is borne out in Thames Valley by treatment data which is available for Thames Valley residents. The data show that a greater proportion of older people have a course of treatment which involves complex care compared to younger age groups (data source BSA 2013/14). This complex care included treatments such as crown, bridges and dentures.

For some older people it is not possible to provide dental care in a general dental practice. This is often because the person has limited mobility or medical conditions which make travel difficult. For these patients dental care needs to be delivered where the person is resident.

In the future, as the population of older people increases and they retain previously restored teeth into old age, there will be an increasing need for dental services which can address these complex restorative care needs.

7.6.3 Recommendations

In December 2014 Public Health England published an oral health needs assessment for Thames Valley.^{xxii} The needs assessment made the following recommendations in relation to adults and older people.

7.6.3.1 Recommendations in relation to adults

Recommendations for NHS England (commissioners of NHS dental services)

- Develop local care pathways to support treatment of patients with complex restorative needs and co-morbidities. This should facilitate partnership working between dentists from generalist, specialist and hospital/tertiary care.
- Pathways should support team working to allow the majority of younger adults with basic oral health needs to be met using appropriate skills mix.
- Urgent services should be designed to meet the needs of people from high need groups and should routinely screen patients for oral cancer.
- Work with profession to incentivise prevention in practice, addressing the risk factors common to oral and general chronic diseases.

Recommendations for local authorities (commissioners of oral health improvement programmes)

- Health improvement strategies should include tackling sugar consumption at multiple levels.
- Services for high need groups should support oral health and signpost to dental services, e.g. through including oral health in staff training.

Recommendations for Health Education England

- Train clinicians to develop advanced skills in diagnosis, communication, treatment planning and clinical care for aging patients with complex restorative needs and relatively high expectations.
- Support dental practices to maximise the use of skill mix and team working.
- Primary care dental teams will need to work in partnership with colleagues in generalist, specialist and hospital/tertiary care to manage patients with complex oral health needs and co-morbidities.

Recommendations for dental professionals

- Need to engage in team working and consider these ways of working when planning dental premises.
- Ensure dental services are accessible, responsive and appropriate to the characteristics and diversity of the population.
- Deliver brief interventions for people that display high risk behaviours for oral cancer, e.g. heavy tobacco use, heavy drinking.
- Dentists should routinely screen patients for oral cancer, particularly those attending for urgent care.

Recommendations for pharmacies

- Pharmacists - Consider brief intervention from pharmacist for anyone buying ulcer medication over the counter.

7.6.3.2 Recommendation in relation to older adults

Recommendations for NHS England (commissioners of NHS dental services)

- Dental services should be accessible to older patients.
- Domiciliary dental care and special care dental services should be commissioned with sufficient capacity to meet the current and future needs of older people who cannot access care from general dental services.
- Future commissioning plans should take into account the predicted growth in the older population and their oral health needs.
- Services which can meet the increasingly complex needs of older people will be required.

Recommendations for local authorities (commissioners of oral health improvement programmes)

- Care homes should include an oral health assessment as part of the standard medical assessment.
- Care home staff should have the skills to provide oral health care support to residents who require it.
- Evidence-based oral health improvement programmes aimed at improving the oral health of older people and reducing inequalities should be commissioned across Thames Valley. These programmes should include reducing total sugar consumption.
- Staff in services which provide care to older people e.g. social services should receive training in oral health and signposting to dental services.

Recommendations for Health Education England

- Professional development and postgraduate courses should be provided which will give the dental team the communication and clinical skills needed to treat older people with complex needs.
- Dental teams should be able to access relevant training e.g. dementia friend.

Recommendations for dental professionals

- Prevention in line with Delivering Better Oral Health^{xxiii} should be provided to older people.
- Dental teams should ensure that they have the necessary skills to provide care for older people with complex needs.

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